UNIVERSITY of WISCONSIN
UWMILWAUKEE
Graduate School

2004-2005

GRADUATE SCHOOL BULLETIN

PROGRAM AND COURSE DESCRIPTIONS

Current as of
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INTRODUCTION

Admission to the Graduate School

UWM is accredited as a comprehensive doctoral and research campus by the North Central Association of Colleges and Schools. Ranked by the Carnegie Foundation as an extensive doctoral/research university (one of 147 nationally), UWM is also one of two UW System institutions that grants the doctoral degree.

Contact for Information and materials

Graduate Student Services
Room: Mitchell 261
Phone: (414)229-6569
Fax: (414)229-6967
E-mail: gradschool@uwm.edu
Web: www.gradschool.uwm.edu

Mail: UWM Graduate Student Services
PO Box 340
Milwaukee, WI 53201-0340

International student admission is discussed later in this chapter.

Classifications

Regular Status
Individuals must meet the requirements of their proposed graduate program unit and the following Graduate School requirements to be considered for admission in regular status:

- A bachelor's degree.
- A minimum grade point average of 2.75 (4.0 scale), based on all undergraduate work completed prior to the awarding of the bachelor's degree.

  GPA computation. All of an applicant's undergraduate coursework completed before award of the first undergraduate degree is included in the GPA computation. For courses that were repeated for credit, each attempt is included.

- Proficiency in the English language (for non-native speakers of English), as demonstrated by ONE of the following:

  A baccalaureate or higher degree awarded within the previous two years from UWM, another approved U.S. institution, or a non-U.S., English-language institution approved by CIE.

  A minimum TOEFL (Test of English as a Foreign Language) score of 550 (paper-based)/213 (computer-based). Some programs may require a higher score. The test must have been taken within the previous two years.

  A minimum IELTS (International English Language Testing System) score of 6.5.

Applicants who have undergraduate grade point average below 2.75 and who have completed advanced degrees *may* be recommended for admission in regular status by the graduate program unit. Some graduate programs have higher minimum admission requirements. Applicants should check with their proposed graduate program units.

Admission on Probation
Applicants whose overall undergraduate grade point average is under 2.75 may be *considered* for admission on probation by presenting substantial evidence of ability to succeed in graduate-level work. The following conditions must be fulfilled ***before*** applicants will be considered for admission. The GPA calculation for admission purposes includes transferred and repeated courses.

Applicants with GPA of 2.50-2.74 must meet at least one of the following conditions:

- A grade point average of 3.0 or above attained during the final 60 semester hours of the applicant's baccalaureate degree program.
- Completion of 6 or more credits of program-approved, post-baccalaureate coursework in an academic area directly related to the applicant's chosen graduate program. The grades earned must be a "B" or better (B- not acceptable).
- Submission of official score reports from the Graduate Record Examination (GRE), the Graduate Management Admission Test (GMAT), or Miller Analogies Test, that indicate a high probability of success in graduate school. Official is defined as having been sent directly from the testing service to UWM.
- An advanced degree.

Applicants with GPA below 2.50 must meet at least TWO of the following conditions:

- A grade point average of 3.0 or above attained during the final 60 semester hours of the applicant's baccalaureate degree program.
- Completion of 9 or more credits of program-approved post-baccalaureate coursework in an academic area directly related to the applicant's chosen graduate program. The grades earned must be a "B" or better (B- not acceptable).
- Submission of official score reports from the Graduate Record Examination(GRE), the Graduate Management Admission Test (GMAT), or Miller Analogies Test, that indicate a high probability of success in graduate school. Official is defined as having been sent directly from the testing service to UWM.
- An advanced degree.

The applicant's proposed graduate program unit may have further requirements for admission on probation and removal of probationary status. Graduate program representatives are responsible for notifying admitted students of the conditions for removal of probation.

Students not removed from probation within three semesters of enrollment must show sufficient cause for continuation of graduate status or they will be academically dismissed by the Dean of the Graduate School.

Admission with Deficiencies
Applicants with more than two deficiencies may not be admitted. All deficiencies must be removed within three enrolled semesters. Deficiencies are monitored by the Graduate School and graduate pro-

gram units. Course credits earned in making up deficiencies may not be counted as program credits required for the degree.

Senior-Graduate Status
Some UWM students with senior standing may apply and be considered for one semester's concurrent enrollment in the undergraduate college and in the Graduate School. To be eligible, these students must be within 6 credits of graduation and meet the admission requirements of the Graduate School (regular status) and of their proposed graduate program. Graduate credit is given only if the requirements for the bachelor's degree, including proficiency tests, are completed by the end of the semester of senior-graduate enrollment. The student's entire program is subject to the regulations and requirements of the Graduate School. Graduate fees must be paid for all coursework taken during the semester of senior-graduate status.

Non-Degree
The minimum requirement for this temporary, graduate-level status is a bachelor's degree. Students who enroll under this status are charged graduate fees. There is non-refundable $10 processing fee for non-degree applications.

Acceptance as a graduate non-degree student does not guarantee admission to a degree program. The departments in which applicants propose to take courses can accept or deny any non-degree candidates.

More information and forms are available at Graduate Student Services, Mitchell 261, or on the Web at www.uwm.edu/Dept/Grad_Sch/Publications.

Faculty and Academic Staff
Members of the UWM academic staff without faculty status may pursue a graduate degree at UWM. Faculty members may take graduate courses on a non-degree basis only.

Retention of Application Materials

Admission is applicable only for the semester and program indicated in the Graduate School admission letter. Applicants admitted but unable to enroll in the semester of admission may request, in writing, that the application be reconsidered for a term in the following year. The application materials are valid for one year.

All application materials, including transcripts, become the property of the Graduate School and will not be returned to the applicant, forwarded to another institution, or duplicated for any purpose.

Admission of International Students

International applicants can request an application package by contacting the International Student and Scholar Services office (ISSS) in the Center for International Education by any of the following methods.

Room: Garland 138
Phone: (414)229-4846
Fax: (414)229-3750
E-mail: apprequest@uwm.edu
Web: www.uwm.edu/Dept/CIE

Mail:
Center for International Education
International Student and Scholar Svcs
PO Box 413
The University of Wisconsin - Milwaukee
Milwaukee, WI 53201-0413

Return all application material to the address above.

Applicants may also apply online or request application materials from the following Web site: www.uwm.edu/Dept/CIE/Forms/grad.html

UWM follows U.S. immigration law when evaluating international student applicants. Before you are accepted, you must show that you have the academic ability, English language skills, and financial resources to succeed in a U.S. educational environment.

International applicants to UWM must:

1. Submit official international educational credentials to ISSS.

2. Demonstrate English proficiency (see below). Proficiency requirement for non-native speakers of English are the same for Degree Candidates and for Non-Degree Candidates.

3. Demonstrate adequate financial resources. Official financial certification of funds must be deemed adequate to cover necessary expenses while enrolled at UWM.

Once applicants are admitted and enrolled in their programs, UWM guarantees that they will be subject to the same procedures as all other non-resident students and will have access to the same program and legal protections, as long as they comply with U.S. immigration law.

International students entering the United States as an F or J visa holder must obtain an I-20 or DS-2019 from ISSS before applying for a visa or transferring from another U.S. institution.

English Proficiency
Non-native speakers of English are required to demonstrate proficiency in the English language. They can meet this requirement with ONE of the following:

- A baccalaureate or higher degree awarded within the previous two years from UWM, another approved U.S. institution, or a non-U.S., English-language institution approved by CIE.

- A minimum TOEFL (Test of English as a Foreign Language) score of 550 (paper-based)/213 (computer-based). Some programs may require a higher score. The test must have been taken within the previous two years.

  To arrange to take the TOEFL, write to: TOEFL/TSE Services, Box 6155, Princeton, NJ, 08541-6155, USA; or visit the TOEFL Web site: www.toefl.org/.

- A minimum IELTS (International English Language Testing System) score of 6.5.

To arrange to take the IELTS, write to Cambridge Examinations, IELTS International, Suite 200, Pasadena, CA 91103; or visit the IELTS Web site: www.ielts.org.

Admission With English Deficiency
Students who do not meet English proficiency requirements may be admitted with an English deficiency with the approval of their graduate program unit. Requests for approval must include evidence of the student's current English proficiency and the steps needed to achieve adequate English proficiency. Students must retake the TOEFL or IELTS at their own expense, when they arrive at UWM.

- If a student scores 550(paper-based)/213(computer-based) or higher on the TOEFL or 6.5 or higher on the IELTS, the English deficiency will be removed.

- Students who score lower must complete one or more advanced classes in UWM's intensive English as a Second Language (ESL) program. After completion, the ESL program director may recommend that the deficiency be removed. You will be limited to a maximum of 6 academic credits and the ESL courses until your English deficiency has been removed.

If your English deficiency is not removed within 18 months of initial enrollment in a UWM graduate program, you may be dropped from the program.

Academic Calendars and Deadlines

- Admission Application Filing Dates
- Academic Calendar
- Graduate School Dates and Deadlines
- Financial Aid Calendar

Admission Application Filing Dates

Check with your proposed graduate program unit for specific deadline information. In the absence of a specific program deadline, **recommended** application filing dates are as follows:

January 1 for summer or fall semester admission
September 1 for spring semester admission

Late submission of materials may leave insufficient time for processing the application.

Academic Calendar

SEMESTER I—2004-2005
Contractual Period—August 23, 2004-Jan. 6, 2005
Orientation and Advising—August 23-27, 2004
Instruction Begins—September 2, 2004
End Mini-term I—October 2, 2004
Begin Mini-term II—October 4, 2004
End Mini-term II—November 6, 2004
Begin Mini-term III—November 8, 2004
Thanksgiving Recess—November 25-28, 2004
Last Day of Semester Classes—December 14, 2004
Study Day—December 15, 2004
Final Exams—December 16,17,18, 20-23, 2004
Graduation—December 19, 2004 (SUN)
Winter Recess—December 24, 2004-Jan.2, 2005

UWinteriM
Instruction Begins—January 3, 2005
Last Day of UWinteriM Classes—January 20, 2005

SEMESTER II—2004-2005
Contractual Period—January 7-May 22, 2005
Orientation and Advising—January 18-Jan. 21, 2005
Instruction Begins—January 24, 2005
End Mini-term I—February 26, 2005
Begin Mini-term II—February 28, 2005
Spring Recess—March 20-March 27, 2005
End Mini-term II—April 9, 2005
Begin Mini-term III—April 11, 2005
Last Day of Semester Classes—May 12, 2005
Study Day—May 13, 2005
Final Exams—May 14, 16-21, 2005
Graduation—May 22, 2005 (SUN)
Steam/Heat Shutdown—May 23-May 27, 2005

SUMMER SESSION CALENDAR—2005
Three-week (Early) Session—May 31-June 18, 2005
First Four-week (Early) Session—May 31-June 25, 2005
Second Four-week Session—June 27-July 23, 2005
Third Four-week Session—July 25-Aug. 20, 2005
First Six-week Session—May 31-July 9, 2005
Second Six-week Session—June 13-July 23, 2005
Third Six-week Session—June 27-Aug 6, 2005
Fourth Six-week Session—July 11-Aug. 20, 2005
Eight-week Session—June 27-Aug. 20, 2005
Twelve-week Session—May 31-Aug 20, 2005

Legal Holidays: No classes are held on Labor Day (9/6/04); Thanksgiving (11/25/04); Martin Luther King, Jr. Day (1/17/05); Memorial Day Observed (5/30/05); Independence Day Observed (7/04/05);

Graduate School Dates and Deadlines

Fellowship application filing dates

Graduate school fellowship
Advanced opportunity program
Earliest application date

Graduation application filing deadlines

Master's & PhD

Fall	September 16, 2004
Spring	February 7, 2005
Summer	June 1, 2005

Dissertation defense deadlines

Fall	December 6, 2004
Spring	May 9, 2005
Summer	August 8, 2005

Thesis or dissertation submission deadlines

Due in Mitchell 261

Fall	December 13, 2004
Spring	May 16, 2005
Summer	August 15, 2005

Graduation/degree conferred

No summer ceremony

Fall	December 19, 2004
Spring	May 22, 2005
Summer	August 20, 2005

Diploma mailed to graduate

Fall	February 2005
Spring	July 2005
Summer	October 2005

Financial Aid Calendar

Applications available November 1 for the following:

- Dissertation Fellowship
- Graduate School Fellowship
- Non-resident Tuition Remission Scholarship
- Advanced Opportunity Program Fellowship

Application deadline: Mid - January

- Dissertation Fellowship
- Graduate School Fellowship

Application deadline: Early February

- Advanced Opportunity Program Fellowship.

  Teaching, research and project assistantships are awarded by individual graduate programs. To learn more about assistantships, contact the graduate program you are interested in.

  Federal student loans and federal work study for graduate students are administered through the UWM Financial Aid Office. Financial aid application forms for 2004-05 will be available after January 1, 2004. Priority deadline for submission of completed application forms is March 1, 2004. For more information and application forms, contact the UWM Financial Aid Office at (414) 229-4541 or at www.uwm.edu/Dept/FINAID.

FINANCIAL ASSISTANCE

You are eligible to apply for the following types of assistance available through the University of Wisconsin-Milwaukee:

1. **Graduate fellowships** administered through the Graduate School Fellowship Office. Call (414) 229-6267 for information.

2. **Teaching, research, and project assistantships** administered through individual graduate programs. Contact your graduate program unit.

3. **Loans, work study, and student employment** administered through the Financial Aid Office. Call (414) 229-4541 for information.

4. **Fellowships and scholarships in specific degree programs.** Consult with your graduate program unit about availability of these awards.

   More information on these programs is also available in the Graduate Student and Faculty Handbook or on the World Wide Web, at www.gradschool.uwm.edu/Publications/HandBook/FinancialAid/.

DIRECTORY OF GRADUATE PROGRAM UNITS

All phone numbers are in the 414 area code.

Administrative Leadership	admlead@soe.uwm.edu	229-4740
Anthropology	jjb@csd.uwm.edu	229-4175
Architecture	jsinger@csd.uwm.edu	229-4015
Art	artgrado@uwm.edu	229-6053
Art Education		229-6053
Art History	cmaranci@uwm.edu	229-4330
Biological Sciences	whitting@uwm.edu	229-4214
Business Administration		229-5403
MBA/MS	uwmbusmasters@uwm.edu	
MBA Exec	emba@uwm.edu	
PhD	uwmbusphd@uwm.edu	
Chemistry	chemdept@alchemy.chem.uwm.edu	229-5565
Clinical Laboratory Sciences		229-6797
Communication		229-4261
Communication Sciences and Disorders	jane@uwm.edu	229-4263
Computer Science	dta@uwm.edu	229-4677
Criminal Justice	rlovell@uwm.edu	229-2392
Cultural Foundations of Education		229-4323
Curriculum and Instruction		229-2524
Dance		229-4947
Economics	bahmani@uwm.edu	229-4811
Educational Psychology	edpsych@soe.uwm.edu	229-4767
Engineering	bwarras@uwm.edu	229-6169
	paulvds@uwm.edu	229-2853
English	stephenk@uwm.edu	229-5913
Exceptional Education		229-5251
Film	melchior@uwm.edu	229-6015
Foreign Language and Literature	mafll@uwm.edu	229-5378
Geography	bjm2@csd.uwm.edu	229-4866
Geosciences	pshaw@uwm.edu	229-4561
History	history@uwm.edu	229-4362
Kinesiology		229-6080
Human Resources and Labor Relations	mhrlr@uwm.edu	229-4310
Information Studies/Library Science	info@sois.uwm.edu	229-4707
Liberal Studies	mls@uwm.edu	229-5963
Management	uwmbusmasters@uwm.edu	229-5403
Management Science	uwmbusphd@uwm.edu	229-4542
Mass Communication	pritchar@uwm.edu	229-4436
Mathematics	mathinfo@uwm.edu	229-5110
Music		229-4393
Nursing		229-5482
Occupational Therapy	stoffelv@uwm.edu	229-4713
Philosophy	philosophy@uwm.edu	229-4719
Physics	joycem@uwm.edu	229-6266
Political Science	gradps@uwm.edu	229-4221
Psychology	ellefson@uwm.edu	229-4747
Public Administration	dihrke@uwm.edu	229-4209
Social Work	ssw@uwm.edu	229-4851
Sociology	sociology@uwm.edu	229-4388
Theatre		229-4947
Urban Education		229-4729
Urban Planning	jsinger@uwm.edu	229-4015
Urban Studies	usp@uwm.edu	229-4751
Women's Studies	womens@uwm.edu	229-5918

UNIVERSITY ADMINISTRATION

GRADUATE SCHOOL

Office of the Dean

Dale J. Jaffe, Interim Dean and Associate Provost for Research
Marjorie A. Bjornstad, Assistant Dean, Human Resources and Budget
Alan J. Swatek, Assistant Dean, Information Technology and Analysis

Graduate Academic Programs and Student Services

Gwat-Yong Lie, Associate Dean
Wendy M. Fall, Director, Graduate Student Services
Douglas E. Harder, Director McNair Postbaccalaureate Achievement Program
Karen I. Levy, Coordinator, Graduate Fellowships and Recruitment

Research Services and Administration

Reinhold J. Hutz, Interim Associate Dean
Peggy M. Vanco, Director

THE UNIVERSITY OF WISCONSIN-MILWAUKEE

Administration

Carlos E. Santiago, Chancellor
John A Wanat, Provost and Vice Chancellor
Monica Ramai, Interim Vice Chancellor, Administrative Affairs
Lucia Petrie, Vice Chancellor, Development
Joan Prince, Assistant Chancellor, Partnerships and Innovations
Mary Roggeman, Interim Vice Chancellor, Student Affairs
Tom Luljak, Vice Chancellor, University Relations and Communications
Rita H. Cheng, Associate Vice Chancellor for Accreditation

Deans of Schools and Colleges

Randall S. Lambrecht, Dean, College of Health Sciences
Robert C. Greenstreet, Dean, School of Architecture and Urban Planning
Wm. Robert Bucker, Dean, Peck School of the Arts
Kanti Prasad, Dean, School of Business Administration
Alfonzo Thurman, Dean, School of Education
William Gregory, Dean, College of Engineering and Applied Science
Dale J. Jaffe, Interim Dean, Graduate School and Associate Provost for Research
Richard Meadows, Interim Dean, College of Letters and Science
Thomas D. Walker, Interim Dean, School of Information Studies
Sally Lundeen, Dean, College of Nursing
Stan Stojkovic, Dean, School of Social Welfare
Rita Cheng, Interim Dean, School of Continuing Education

UNIVERSITY OF WISCONSIN SYSTEM

Regents

Roger E. Axtell, Janesville
Mark J. Bradley, Wausau
Elizabeth Burmaster, Madison
Eileen Connolly-Keesler, Oshkosh
Danae D. Davis, Milwaukee
Michael J. Falbo (nominated), Milwaukee
Guy A. Gottschalk, Wisconsin Rapids
Gregory L. Gracz, Milwaukee
Toby E. Marcovich, Superior
Milton McPike, Mazomanie
Jose A. Olivieri, Milwaukee
Charles Pruitt, Milwaukee
Gerard A. Randall, Jr., Milwaukee
Beth Richlen, Madison
Peggy Rosenzweig, Wauwatosa
Jesus Salas, Milwaukee
Brent Smith, La Crosse
David G. Walsh, Madison

Administration

Kevin P. Reilly, President
Cora B. Marrett, Senior Vice President for Academic Affairs
Deborah A. Duncan, Acting Vice President for Finance
Linda Weimer, Vice President for University Relations

Administrative Policies

Equal Opportunity

The University of Wisconsin - Milwaukee is an institution that believes in the principles of fairness, equity and equal opportunity, and does not discriminate on the basis of race, sex, color, creed, national origin, disability, or any other protected status recognized by Wisconsin or federal law.

In 1990, s. 36.12, Wisconsin Statutes, was enacted which provides as follows:

> No student may be denied admission to, participation in or the benefits of, or discriminated against in any service, program, course or facility of the (UW) System or its institutions or centers because of the student's race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status or parental status.

University policies also prohibit harassment or retaliation against complainants on any of these bases. These policies are in compliance with all relevant Wisconsin and federal laws, rules, and regulations.

If you have questions about the application of any of these policies, contact the appropriate admitting or employing office, or the campus Office of Equity/Diversity Services, Mitchell 359, 229-5923.

Discriminatory conduct

UWM remains steadfastly committed to the principles of academic freedom. This commitment requires an equally strong obligation to foster respect for the dignity and worth of each individual. Without this respect, the principles of academic freedom become meaningless. Moreover, relationships such as student-faculty and employee-supervisor have inherent power differences that compromise some persons' ability to protect their own rights. Therefore, this University must provide an environment that respects the value of each individual and that does not tolerate discriminatory conduct of any kind.

Drug and alcohol policies and programs

Consistent with the federal Drug Free Schools and Communities Act, UWM provides a comprehensive educational and abuse prevention program for students. Included are presentations to classes and student organizations, workshops, awareness campaigns, and a variety of printed materials. UWM prohibits the unlawful possession, use, distribution, manufacture or dispensing of illicit drugs and alcohol on University property or as part of University activities. A centerfold insert in the Schedule of Classes for each semester describes pertinent laws, rules, and sanctions, as well as the health effects of abuse and a list of treatment resources.

Sexual harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It is damaging to the academic community as a whole, and threatens the careers, educational experience, and well-being of students, faculty, and staff. When, through fear of reprisal, a student, student-employee, staff member, or faculty member submits or is pressured to submit to unwanted sexual attention, the University's ability to carry out its mission is undermined.

Sexual harassment is especially serious when it compromises the relationship between teacher and student or supervisor and subordinate, because it involves an abuse of the power inherent in the superior's position. Through control over grades, evaluations/recommendations, wages, and promotions, an instructor or supervisor can have a decisive influence over the career of a student, staff person, or faculty member within the University and beyond. Therefore, consenting amorous and/or sexual relationships between instructor and student or supervisor and employee are discouraged because of the potential abuses of power and conflicts of interest that can result. In such relationships, consent shall not be considered a defense if a complaint of sexual harassment or retaliation is later filed. The University requires that the participants in such a relationship immediately remove the conflict of interest and that the person in the more powerful position report the relationship to the dean or division head to ensure that all such conflicts of interest have been adequately addressed.

UWM recognizes that handling sexual harassment complaints in an expedient manner that protects the rights of all parties must be the objective of campus procedures.

If you may have suffered from sexual harassment or have first-hand knowledge of such treatment, report it to someone in authority at the University or to the Office of Diversity/Compliance. For information, counseling, or to file a complaint, contact the Office of Equity/Diversity Services, in Mitchell 359 or call 229-5923.

Student conduct

Certain UW System rules passed by the Board of Regents address academic and non-academic misconduct by students, defining violations and establishing disciplinary guidelines. Penalties for violating these rules include fines, suspensions, expulsions, or even imprisonment.

- UWS 14 covers academic misconduct, which includes claiming credit for the work of others, using fabricated information in academic exercises, forgery or falsification of academic records, impeding the work of other students, or assisting others in any of these acts.
- UWS 17 defines non-academic acts that are prohibited on campus, including endangering safety of people or property, stalking or harassment, disruptive behavior, unauthorized possession of property, making false statements, and committing acts prohibited on University property.
- UWS 18 governs the behavior of all persons while on University property, in matters ranging from parking regulations and use of I.D. cards, to unauthorized demonstrations and vandalism, to use of illegal substances.

Complete UWM and UW System student discipline policies are available in the Office of Student Life, Mellencamp 118.

All 22 chapters of state administrative code pertaining to the UW System can be viewed on the Web at www.legis.state.wi.us/rsb/code/uws/UWS.html.

Student rights

Under the provisions of the Family Educational Rights and Privacy Act of 1974, you are entitled to review your education records maintained by the University. You may request a hearing regarding any alleged inaccurate, misleading, or inappropriate information contained in the record. The University may not disclose information from your record to a third party unless you give consent, or unless permitted to do so by the Family Education Rights and Privacy Act of 1974. For more information, contact the Graduate Records Office, Mitchell 261, or the Office of Student Life in Mellencamp 118.

The various schools and colleges at UWM have set up appeals and grievance procedures related to academic decisions or rules and regulations. To learn more about these procedures, contact the dean's office of the school or college from which the course was taken, or the Office of Student Life. Additional information also appears in the Academic Rules and Procedures chapter of the *Graduate Student and Faculty Handbook*, under "Appeals of Academic Decisions" and "Exceptions to Graduate School Rules and Regulations."

You may restrict the release of your address, phone number, and other limited information. If this is done, the address and phone number will not appear on most mailing lists used by UWM student organizations, campus departments, or on mailing lists obtained from UWM by non-University groups. For more information, refer to the Schedule of Classes or contact the Department of Enrollment Services Information Center, Mellencamp 274.

Criteria of Licensing or Professional Organizations

Some professions and occupations are subject to licensing and/or bonding requirements. If a course of study includes clinical or field training, practice teaching, internships, or the like, there may be technical requirements, such as a check of criminal conviction records, that you must meet before you are accepted by the placement site. You are responsible for learning these requirements and planning your studies accordingly.

ACADEMIC PROGRAMS

ADMINISTRATIVE LEADERSHIP

School of Education

Degree Conferred: MS in Administrative Leadership
Phone: (414) 229-4740
FAX: (414) 229-5300
E-mail: admlead@soe.uwm.edu
Web site: www.uwm.edu/Dept/Ad_Ldsp

The Department of Administrative Leadership offers a graduate program of studies with two emphases: one on educational administration and supervision and the other on adult and continuing education leadership.

The emphasis on educational administration and supervision prepares the student for a career as a school district administrator, elementary, middle, or secondary school administrator, director of special education and pupil services, school business manager, or curriculum director. Through this program of studies, the student can fulfill professional education requirements for administrative and supervisory licenses in Wisconsin and most other states.

The emphasis on adult and continuing education leadership prepares the student for positions of leadership in post-secondary programs including vocational and technical education, university extension, continuing professional education, in-service training and human resource development, adult basic education, adult literacy, and educational leadership and program development in health, religious, manpower and other agencies and community educational programs.

The Department also offers a course of study leading to the Specialist Certificate in Administrative Leadership - required for the school superintendency and recommended for other school or adult education administrative or supervisory positions.

Under the auspices of the PhD program in Urban Education, the Department offers doctoral level specializations in educational administration and in adult and continuing education.

Graduate Faculty

PROFESSORS

Kritek, William, Ph.D., Washington University
Martin, Larry G., Ph.D., University of Wisconsin-Madison
Schneider, Gail, Ph.D., University of Wisconsin-Madison, Chair

ASSOCIATE PROFESSORS

Crampton, Faith, Ph.D., The Ohio State University
Daley, Barbara J., Ph.D., Cornell University

ASSISTANT PROFESSORS

Beachum, Floyd, Ed.D. Bowling Green State University
Conceicao, Simone, Ph.D., University of Wisconsin-Madison
Dentith, Audrey, Ph.D., Pennsylvania State University
Hendrich, Patricia, Ph.D., University of Wisconsin-Madison
LaNear, John, J.D., University of Missouri - Kansas City

Master of Science in Administrative Leadership

Admission
An applicant must meet Graduate School requirements to be considered for admission to the program.

Major Professor as Advisor
The student must have a major professor to advise and supervise the program of studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Emphasis on Educational Administration & Supervision

Credits and Courses
Minimum degree requirement is 33 graduate credits, 27 of which must be in education and 6 of which may be in related fields. Credit distribution must be: 18-24 credits in educational administration and supervision; 9-15 credits in related electives, of which 6 credits may be earned through a thesis or master's paper.

The student plans an individual program of studies in consultation with a major professor. If the student intends to apply for the Specialist Certificate upon completion of the master's degree, the program of studies may satisfy Specialist Certificate admission requirements.

Thesis or Master's Paper
Optional. See Credits and Courses above.

Comprehensive Examination
The student must pass a written and/or oral final comprehensive examination.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Emphasis on Adult and Continuing Education Leadership

Credits and Courses
Minimum degree requirement is 33 graduate credits, 24 of which must be in education and up to 9 of which may be in related fields. Credit distribution must be: 15 credits in adult education; 9 credits in foundations; and 9 credits in related electives, of which 6 credits may be earned through a thesis or master's paper. The student plans an individual program of studies in consultation with the major professor. If a student intends to apply for a Specialist Certificate upon completion of the master's degree, a program of studies can be arranged so that a portion of the credits earned toward the degree will also partially or completely satisfy admission requirements for a course of study leading to the Specialist Certificate, as detailed below.

Thesis or Master's Paper
Optional. See Credits and Courses above.

Comprehensive Examination
The student must pass a written and/or oral final comprehensive examination.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Specialist Certificate in Administrative Leadership

A master's degree is the minimum prerequisite for admission to the Specialist Certificate. The Certificate can be taken with a career emphasis in the superintendency, the principalship, supervision, central office administration, or adult education administration. A cooperative relationship for the Specialist Certificate exists with the Department of Curriculum and Instruction for students with a reading supervision emphasis.

Admission
Applicants must meet these departmental requirements:

- Completion of a master's degree with a graduate grade point average of 3.5 or above (4.0 scale). The master's degree may be in any field.
- Written statement of professional objectives and educational experience.
- Applicants not meeting the grade point minimum may be admitted upon submission of additional data to be specified by the Department chair.

Course of Study
Credit and course requirements depend up-on the applicant's degree field. For an applicant with a master's degree in educational administration and supervision or adult education, the minimum credit requirement is 27 graduate credits, normally distributed as follows: 21-24 credits in administrative leadership, and 3-6 credits in related electives, including 3 credits in an applied research project. For an applicant with a master's degree earned in a field other than educational administration and supervision or adult education, the minimum credit requirement is 30 graduate credits. Additional coursework may be required for administrative certification.

Health Professional Education Certificate

The health professional education certificate is designed to provide health professionals with additional preparation in educational principles and theory to support them in their roles as educators of students and staff in the health professions as well as in the role of patient educator. This program is open to students simultaneously enrolled in a graduate degree program, as well as to health professionals who have completed a baccalaureate, master's or doctoral degree. The certificate program is a collaborative program between the College of Health Sciences and Schools of Nursing and Education, and is coordinated through the College of Nursing.

Admission
Applicants are admitted to the certificate program in one of three categories: post-baccalaureate, current student in a UWM graduate health profession program, or post-graduate student.

- Post-baccalaureate students must have completed a bachelor's degree in a health profession discipline with a grade point average of 2.75 or above (4.0 scale) and not be currently enrolled in a graduate degree program at UWM.
- The admission requirements of the health professional educational certificate for students enrolled in good standing in a UWM graduate health profession program are consistent with those requirements specified by the program.
- Post-graduate students must have completed a graduate degree in a health profession or related discipline with a grade point average of 3.0 or above (4.0 scale).

Credits and Courses
The completion of 15 credit hours (5 courses) is required for the certificate program. All students are required to complete 2 core courses, Principles & Foundations of Adult Education (3 credits) and Practicum & Seminar in Health Professional Education (3 credits). In addition students will complete 3 credits in the area of curriculum/program planning and evaluation, 3 credits in teaching/instructional strategies, and 3 credit hours in an elective area. A current listing of courses that meet these requirements can be obtained from the College of Health Sciences or the College of Nursing. Students will need to maintain a 3.0 GPA and meet all other requirements of the Graduate School for continuation in the program. The Practicum and Seminar in Health Professional Education is the last course taken in the certificate program.

Up to six credits of graduate courses taken at UWM or another institution prior to admission to the certificate program will be allowed to transfer to meet requirements for the certificate. Such courses must meet Graduate School requirements for transfer credit.

Time Limit
The student must complete all certificate course work within three years of initial enrollment in the certificate program.

Doctor of Philosophy in Urban Education

Specialization in Adult and Continuing Education
This program, under the auspices of the doctoral program in Urban Education, provides a specialization in Adult and Continuing Education Leadership. In general, this specialization requires advanced course work and inquiry in such areas as urban adult education, continuing education in the professions, adult and organizational learning, human resources development, and philosophy and history of adult education, particularly as these areas relate to the governance and leadership issues of urban adult education organizations. The program is described in detail in the Urban Education section of this Bulletin.

Specialization in Educational Administration
This program, under the auspices of the doctoral program in Urban Education, provides a specialization in Educational Ad-

ministration. In general, this specialization requires advanced course work and inquiry in such areas as organizational theory, policy-making, staff development and leadership, particularly as these areas relate to the governance and leadership issues of urban schools and educational organizations. The program is described in detail in the Urban Education section of this Bulletin.

Courses

Administrative Leadership (AD LDSP)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

500 Administration of American Public Schools. 3 cr. U/G. - Prereq: jr st. Available as grad level only.

507 Introduction to Group Leadership. 3 cr. U/G. Concepts and theories of group and organizational leadership applied to problems of youth-serving organizations and student activities in secondary and post-secondary schools and colleges. Prereq: jr st

517 Introduction to Adult Education Practice. 3 cr. U/G. Objectives, organization and practices of postsecondary programs of lifelong learning, adult and continuing education, and community and public service programs. Prereq: jr st

537 Leadership and Management of Volunteer Programs. 3 cr. U/G. Introduction to volunteers and organizations which utilize them. Course emphasizes practical application of leadership skills needed for effective management and training of volunteers. Prereq: jr st

547 The Educational Dimensions of Practice with Older Adults. 3 cr. U/G. Current problems, issues and research relating to the development and organization of educational programs for older adults. Prereq: jr st

557 Foundations and Philosophy of WTCS in Wisconsin. 2-3 cr. U/G. History, philosophy, objectives, organization and legal bases for vocational education, with special emphasis given the movement in Wisconsin. Prereq: jr st or vocational teachers or cons instr

567 Supervision and Planning for Vocational and Technical Education. 3 cr. U/G. Social, economic, philosophical, and historical foundations of career education. Exploration of past, present and projected models. Strategies for program selection, community involvement, evaluation and management. Prereq: jr st or cons instr

577 Adult Literacy and Workforce Development. 3 cr. U/G. Analyzes the problem of adult low literacy and its effects on work force development; presents alternative procedures for providing educational programs. Prereq: jr st

579 Current Topics in Administrative Leadership. (Subtitled). 1-3 cr. U/G. Current problems, issues and research in administrative leadership and supervision and their implications for practitioners. May be repeated with change in topic to max of 9 cr. Prereq: jr st

581 Administration and Supervision in Early Childhood Programs. 3 cr. U/G. Analyzes, from a quality perspective, the administrative roles and responsibilities of various early care and education programs, and the groups with whom they have relationships. Prereq: jr st

582 Operations Management in Early Childhood Programs. 3 cr. U/G. An introduction to systems and operations theory. Students explore and apply management concepts, systems, policies, and procedures to improve the quality of programs and services. Jointly offered with & counts as repeat of Ed Pol 582. Prereq: jr st; Ad Ldsp 581(P); or cons instr

583 Financial Management and Planning in Early Childhood Programs. 3 cr. U/G. Identifies the principles of sound financial management and develops the ability to apply those principles to the financial planning and management of early childhood programs. Prereq: jr st & Ad Ldsp 581(P); or cons instr

586 Administrative Seminar: Leadership in Early Childhood Programs. 3 cr. U/G. Integrates and applies the concepts and skills acquired in the first five courses as demonstrated in the development of a major project by each student. Prereq: jr st & Ad Ldsp 581(P); Ad Ldsp 582(P) or Ed Pol 582(P); Ad Ldsp 583(P); Ed Pol 584(P); CurrIns 585(P)

587 Serving Multicultural and Special Needs Learners. 3 cr. U/G. Examines the needs of multicultural and adult vocational special needs learners; explores strategies for revising instructional methods/approaches and program development. Prereq: jr st

597 Program Development in Occupational Education. 3 cr. U/G. Technical, administrative, organizational, and participatory skills and knowledge associated with program development in occupational education for adults and adolescents. Prereq: jr st

607 Coordination of Staff Development and Training Program. 3 cr. U/G. Provides knowledge and skills required for the design, coordination and administration of staff development and training programs. Prereq: jr st

617 Leadership in Youth-Serving Organizations. 3 cr. U/G. Introduction to the philosophy and operations of youth-serving organizations, administration of programs, and the role of youth-serving organizations in the larger community. Prereq: jr st

630 Field Work in Schools, Agencies and Institutions. 2-6 cr. U/G. Field inquiry and experience in applied problems of administrative leadership in school administration, supervision or adult education in conjunction with seminar sessions to relate theory to practice. Retakable to max of 6 cr. Prereq: Ad Ldsp 517(P) or 702(P) or 757(657)(P); cons instr

647 Evaluation of Adult and Continuing Education Programs. 3 cr. U/G. Provides an awareness, analysis, and synthesis of the purposes, methods, and procedures for evaluating diverse types of adult education programs, e.g., HRD, extension/outreach, etc. Counts as repeat of Ad Ldsp 579 with similar title. Prereq: jr st

667 Program Planning in Adult Education. 3 cr. U/G. Principles and processes affecting programming of adult education. Focus on planning, execution, and evaluation dimensions of the programming process. Prereq: jr st; Ad Ldsp 517(P) or 757(657)(P)

677 Issues in Adult Basic Education. 3 cr. U/G. Analysis of research and practice

relative to current issues in adult basic education. Prereq: jr st; Ad Ldsp 577

687 Instructional Design and Teaching Strategies. 3 cr. U/G. Using an instructional design approach, students develop skills in selecting, using, and evaluating instructional strategies and procedures appropriate to particular domains of adult learning. Prereq: jr st; Ad Ldsp 517(P); or cons instr

689 Workshop in Administrative Leadership: (Subtitled). 1-3 cr. U/G. A workshop for practitioners focusing on common problems and concerns in light of current studies and research. Specific topics and any additional prereqs will be announced in the Timetable each time the course is offered. May be repeated with change of topic to max of 9 cr. Prereq: jr st; leadership experience or cons instr

702 Leadership in Educational Organizations. 3 cr. G. Governance; social, political, and economic influences; theories of organizations and organizational behavior related to the administration of elementary and secondary schools. Prereq: grad st

707 Using Technology With Adult Learners. 3 cr. G. Design and management of web-based instructional programs/classes applying principles of instructional design, media, and software applications for adult learners. Prereq: grad st; Ad Ldsp 757

710 Organizational Change and Team Leadership. 3 cr. G. Organizational change and team leadership is designed to introduce theories and concepts in organizational change and the interpersonal dynamics of working with and leading teams. Prereq: grad st; Ad Ldsp 702 or 757(657) or cons instr

712 Instructional Leadership. 3 cr. G. Personnel functions of the building principals recruitment, induction, staff development, supervision, and evaluation. Field experience integrated into course activities. Prereq: grad st; Ad Ldsp 702 or cons instr

725 The Politics of Education. 3 cr. G. An examination of political decision-making at federal, state, and local levels, governments, and education. Prereq: grad st; Ad Ldsp 705 or 657 or cons instr

729 Qualitative Research and Field Studies in Education Settings. 3 cr. G. Examination of qualitative techniques as applied to educational research and evaluation in schools, classrooms, and other educational settings. Not open to students who have cr in CurrIns 729 which is identical to Ad Ldsp 729. Prereq: grad st; Ed Psy 528 or equiv

732 The Politics of Education. 3 cr. G. School-level politics of education and school-community relations. Focus on effective communication. Community assessment, partnerships, parent education, and related issues. Prereq: grad st; Ad Ldsp 702 or cons instr

737 Distance Education for Adults. 3 cr. G. Analysis of concepts, theories, and research in distance teaching and learning focusing on adult learners, program development and assessment of distance teaching and learning. Prereq: Ad Ldsp 757 or cons instr

742 Administrative Planning in Education: Concepts, Theories, and Practice. 3 cr. G. Systematic methods, administrative techniques, and practice related to development, implementation, and assurance of quality in operational and strategic planning in education. Prereq: grad st; Ad Ldsp 702 or cons instr

745 Seminar in Educational Administration and Supervision. 3 cr. G. In depth study of selected problems and aspects of educational administration and supervision. Each student will pursue a topic or project selected with instructor's approval. Prereq: grad st; Ad Ldsp 705, 706 & 740

747 Strategic Planning and Budgeting in Adult Education. 3 cr. G. Examines theoretical models and research literature on both strategic and operational planning, and the budgeting process for adult and continuing education organizations. Prereq: Ad Ldsp 667 or cons instr

750 Internship in Administrative Leadership. 1-6 cr. G. Field experience in school and social agency sellings under guidance of an experienced administrator and a faculty member. Prereq: grad st; Ad Ldsp 710 & cons advisor

752 School Law. 3 cr. G. Authority, power, liability of school personnel, legal status of school districts, officers, pupils. Legal controls on curriculum, property, finances. Emphasis on state, federal court decisions. Prereq: grad st; Ad Ldsp 702 or cons instr

757 (657) Principles and Foundations of Adult Education. 3 cr. G. A study of concepts, theories and principles of adult education, the nature of adult processes, and factors that influence and facilitate adult learning. Prereq: grad st or cons instr

762 Management of Educational Resources. 3 cr. G. Building level school finance and fiscal management. Federal, state, and local taxation policies; equity; budgeting, purchasing, and fiscal control of public and student funds. Prereq: grad st; Ad Ldsp 702 or cons instr

767 Practicum in Program Planning and Implementation. 3 cr. G. Application of program planning principles including program development, budgeting, marketing, facilities management and evaluation in the implementation of an education program. Prereq: grad st, Ad Ldsp 667 or 702 (705)

772 The Principalship. 3 cr. G. In-depth seminar examining the problems and issues of school administration at the building level. Prereq: grad st; completion common core

777 Leadership in Multicultural Organizations. 3 cr. G. Analyzes concepts and theories of leadership, issues of diversity in organizations, and explores techniques for managing differences that comprise today's multicultural workforce. Prereq: grad st; Ad Ldsp 757(657) or 702(705) or cons instr

779 Current Topics in Administrative Leadership: (Subtitled). 1-3 cr. G. Current problems, issues and research in administrative leadership and supervision and their implications for practitioners. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated with change in topic to max of 9 ccr. Prereq: grad st

782 Principalship Field Practicum. 1-3 cr. G. Field application of knowledge, concepts and skills learned in principal accreditation course work. Seminar attendance required. Retakeable to max of 3 cr. Prereq: grad st; compl common core & Ad Ldsp 772

787 Administration of Adult Education Programs. 3 cr. G. Current behavioral concepts, theories, and processes of administration, supervision, and coordination as applied in adult education organizations and agencies. Prereq: grad st; Ad Ldsp 757 or writ cons instr

798 Seminar in Human Resource Development. 3 cr. G. Analyzes the concepts, current research, issues, and trends in the area of human resource development and how these issues influence organizational performance. Prereq: grad st; Ad Ldsp 607

799 Independent Reading. 1-3 cr. G. For graduate students unable to secure needed content in regular courses. Prereq: grad st; cons instr & advisor

800 Administration of the School Plant. 2-3 cr. G. Determination of school plant needs based upon educational program, population, and utiligation studies. Evaluation of existing school plant. Prereq: grad st; Ad Ldsp 705 & 706

801 Urban Education: Doctoral Seminar in Administrative Leadership. 3 cr. G. Administrative leadership and policy development in urban education. Prereq: grad st; admis to ph.d. prog in urban educ; Educ 701

802 The School Superintendency. 3 cr. G. A study of the special problems and opportunities involved in administering school districts, focusing on the role of the district administrator. Prereq: post masters st; or cons instr

812 Educational Personnel Administration and Supervision. 3 cr. G. Focus on major concepts, functions and problems of personnel administration in education including recruitment, assignment, evaluation and motivation. Prereq: grad st; Ad Ldsp 802 or cons instr

827 Seminar in Adult and Organizational Learning. 3 cr. G. Application of transformative, critical, and action learning concepts to personal and professional development. Prereq: grad st; Ad Ldsp 710(P)

829 Advanced Qualitative Research Techniques for Education Settings. 3 cr. G. Advanced examination of qualitative research techniques in three areas; conceptual design; data collection methods and data analysis and reporting. Not open to students who have cr in CurrIns 829 which is identical to Ad Ldsp 829. Prereq: Ad Ldsp 729 or cons instr

832 Educational Politics and Policymaking. 3 cr. G. An examination of political sources of decision making in education. The role of interest groups in shaping educational policy and implementation at local, state, and national levels. Prereq: post-master's st; Ad Ldsp 802 or cons instr

839 Practicum in Writing from Qualitative Research for Educational Settings. 3 cr. G. Practice in writing from qualitative research data and analysis of qualitative text. Not open to students who have cr in CurrIns 839 which is identical to Ad Ldsp 839. Prereq: grad st; Ad Ldsp or CurrIns 729(P) & 829(P)

842 Program Planning and Evaluation in Education. 3 cr. G. Theory, research, and practice regarding role of the superintendent in planning and evaluating education programs. Case studies, simulations, and field applications. Prereq: grad st; Ad Ldsp 802 or cons instr

850 Supervision of Student Teaching. 3 cr. G. The role and responsibilities of the supervising teacher in planning, guidance and evaluation of the learning experiences of prospective teachers. Prereq: grad st; Ad Ldsp 705 or cons instr

852 Collective Bargaining and Contract Administration in Education. 3 cr. G. Study of theory and practice of collective bargaining in educational systems. Prepares educators to manage the bargaining process and administer the contract. Prereq: postmaster's st; Ad Ldsp 802 or cons instr

857 Seminar in Leadership for Change. 3 cr. G. A critical examination of problems and issues in change theory and practice and their implications for administrative leadership. Prereq: grad st; Ad Ldsp 657 or 705 or writ cons instr

860 Administrative Behavior. 3 cr. G. Theoretical concepts, empirical research, simulated experiences related to administrative behavior in schools and service organizations. Relationships among organizational, role contexts and personal style of administrators. Prereq: grad st; Ad Ldsp 705 & 740, or cons instr

862 School Finance. 3 cr. G. Theoretical/contemporary bases for raising/distributing local, state, federal funds for public education. Problems, issues of public school financial support. Analysis of Wisconsin school support. Prereq: post-master's st, Ad Ldsp 802 or cons instr

867 Seminar in Continuing Education in the Professions. 3 cr. G. Analysis of the role and nature of continuing education in professions; current issues affecting the development of this field of adult education practice. Prereq: grad st; Ad Ldsp 667 or cons instr

877 Seminar in Two-Year Post Secondary Institutions. 3 cr. G. Present status, development, functions, organizational and curriculum trends in postsecondary nonbaccalaureate institutions. Prereq: grad st; Ad Ldsp 657 or cons instr

880 Proseminar in Urban Education: Administrative Leadership. 3 cr. G. An examination of selected problems and issues in urban education. Prereq: grad st; admis to the urban education doctoral prog

882 Practicum in the School Superintendency. 1-3 cr. G. Field application of the knowledge, concepts, and skills learned in concurrent course work. Seminar attendance required. Repeatable to 3 cr. Prereq: post-master's st; admis to District Administrator Cert Prog; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr will be assessed. Repeatable to 3 cr. Prereq: grad st

892 Specialist Applied Research Project. 2-6 cr. G. Specialist project and inquiry in applied problems of administration and supervision. Prereq: postmaster's st; completion of 15 cr in specialist sequence; cons advisor

897 Seminar in the Philosophy and History of Adult Education. 3 cr. G. Philosophical foundations related to the historical movement of adult education and implications for future directions. Prereq: grad st; Ad Ldsp 657 or cons instr

905 Workshop for Administrators. (Subtitled). 1-6 cr. G. A workshop for superintendents, building administrators and supervisors. Opportunities to exam-

ine school problems of major concern in the light of current studies and experience. Prereq: grad st; cert as school admin or supervisor or cons instr. Admin or supervision experience recom

955 Seminar in Instructional Supervision. 3 cr. G. Problems of teacher-learner and supervisory relationships in improvement of instructional programs and development of personnel. Analysis of selected problems. Prereq: postmaster's st; elgibility for building administrator or supervisor cert

960 Seminar in Economics of Education. 3 cr. G. Financing public education. Efficient allocation and use of facilities and material. Theoretical bases and premises of public education financial support. Federal, state, and local relationships. Prereq: grad st; Ad Ldsp 862

967 Seminar in Urban Adult Education. 3 cr. G. Critical survey of problems and issues in adult education in the urban context. Analysis of selected problems in designing and implementing effective programs. Prereq: grad st; Ad Ldsp 657

970 Policy Issues in Urban Education. 1-3 cr. G. Examines recent policy developments in education, socio-political forces which have defined policy direction, and major points of controversy surrounding educational policies. Prereq: postmaster's st or cons instr

990 Research or Thesis. 1-3 cr. G. - Prereq: grad st; cons instr

999 Independent Reading. 1-3 cr. G. For the benefit of postmaster's students unable to secure needed content in regular courses. Prereq: grad st; cons instr

Cross-listed Courses

The following courses may be used to fill certain curricular requirements of the graduate program in Administrative Leadership.

Library and Information Science 801 Issues in Education & Information Technology. 3 cr, G.

AFRICOLOGY

College of Letters and Science

Request information on-line

Courses Africology (AFRICOL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

300 Urban Violence. 3 cr. U/G. Analysis of the nature, causes, and consequences of urban violence; the possibilities and limits of violence in promoting the good of blacks will be scrutinized. Prereq: jr st

311 African Religious Thought and Social Organizations. 3 cr. U/G. A critical analysis of foundations from which complex social structures and institutions evolved in the diverse societies of the Afroworld. Prereq: jr st

319 History of Blacks in the American City. 3 cr. U/G. A consideration of the contributions of blacks to the growth and development of the American city. Prereq: jr st

321 Black Workers in Technologic Society. 3 cr. U/G. Analysis of scientific and technological changes in America since 1900, and their qualitative as well as quantitative impact on black productivity and participation in the work force. Prereq: jr st

322 Order and Disorder: The Quest for Social Justice. 3 cr. U/G. An analysis of the forms, purposes, and effects of order and disorder in relation to black people's quest for social justice. Prereq: jr st

326 Economic Problems of Black Business. 3 cr. U/G. Examination of major economic problems of black business; liquidity, credit, market shares, insurance, rents, mortgages, and location are analyzed in relation to black business performance. Prereq: jr st

329 Problems and Prospects of U.S./Africa Economic Relations. 3 cr. U/G. Analysis of the economic relationships between Africa and the United States, with special consideration given to political and social factors. Satisfies L&S International req. Prereq: jr st

344 Political Movements and Organizations in the Afroworld. 3 cr. U/G. Analysis of leadership, ideology, and the structure of black political movements and organizations in the twentieth century. Prereq: jr st

350 The Black Family. 3 cr. U/G. An examination of the structure and functions of the black family in its urban and rural contexts. Prereq: jr st

450 Cultural Transmissions: Black Africa and Black America. 3 cr. U/G. A cross-national and cross-cultural comparison of the societies and cultures of black Americans and black Africans. Prereq: jr st

451 Rites of Passage in Black Societies. 3 cr. U/G. Foundations of the use of rites of passage in different societies throughout Africa and the African diaspora. Prereq: jr st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog.

565 Selected Texts/Topics in Africology: (Subtitled). 3 cr. U/G. Examination of selected problems, issues, and themes in Africology. Retakable w/chg in topic to 6 cr max. Prereq: jr st

799 Graduate Independent Study. 1-3 cr. G. Independent work supervised by a member of the graduate faculty. Retakable w/ chg in topic to 9 cr max. Prereq: grad st; cons instr

ANTHROPOLOGY

College of Letters and Science

Degrees Conferred: MS, PhD in Anthropology
Phone: (414) 229-4175
FAX: (414) 229-5848
E-mail: jjb@uwm.edu
Web site:
www.uwm.edu/Dept/Anthropology/grad.html

The Department of Anthropology offers programs of graduate study designed to provide a broad background in all significant facets of the discipline - biological as well as cultural, analytic as well as descriptive - while still encouraging specialization. It provides training both for students interested in an academic career in anthropology and for those concerned with practical issues approached from the integrative perspective of anthropology. The department, in cooperation with the Milwaukee Public Museum, also offers a program leading to a Certificate in Museum Studies. The Milwaukee Public Museum, the fourth largest natural history museum in the country, is the site for methods courses that provide the student practical experience in museum work and for courses in the history and theory of museum exhibits.

Each student's program of studies includes training in anthropological theory and methods, issues and problems in cultural anthropology, archaeology, anthropological linguistics and physical anthropology, as well as topics that focus on the student's area of particular interest.

MS/MLIS Coordinated Degree Program. In cooperation with the School of Information Studies, the Department of Anthropology offers a MS/MLIS program (51 credits) to prepare students for positions as curators of museum libraries, and as information specialists and researchers for local history collections and state historical societies. Students enrolled in this program concurrently pursue the MS degree in Anthropology (21 credits in Anthropology) and the MLIS degree (30 credits in SOIS). Candidates for the coordinated degree program will be expected to fulfill the degree requirements of both programs. Degrees will be awarded simultaneously.

Graduate Faculty

PROFESSORS

Anapol, Fred, Ph.D., State University of New York at Stony Brook
Gray, J. Patrick, Ph.D., University of Colorado
Turner, Trudy, Ph.D., New York University
Washabaugh, William, Ph.D., Wayne State University

ASSOCIATE PROFESSORS

Ajirotutu, Cheryl S., Ph.D., University of California-Berkeley
Applbaum, Kalman Ph.D., Harvard University
Arnold, Bettina, Ph.D., Harvard University
Brodwin, Paul, Ph.D., Harvard University
Jeske, Robert, Ph.D., Northwestern University, Chair

ASSISTANT PROFESSORS

Heatherington, Tracey, Ph.D., Harvard University
Hudson, Jean, Ph.D., University of California-Santa Barbara
Jordt, Ingrid, Ph.D., Harvard University
Malaby, Thomas, Ph.D., Harvard University
Muehlenbein, Michael, Ph.D., Yale University
Perley, Bernard, Ph.D., Harvard University

ASSOCIATE SCIENTISTS

Richards, John, Ph.D., University of Wisconsin-Milwaukee
Richards, Patricia, Ph.D., University of Wisconsin-Milwaukee

Master of Science in Anthropology

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate major in anthropology comparable to that at UWM.
- Three letters of recommendation.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Application deadlines for admission to the program are January 15th for the following Fall semester and September 15th for the following Spring semester. Applicants requesting financial assistance may have other deadlines to be considered eligible. Contact the department's graduate advisor for specific financial aid deadlines.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Credits and Courses
Minimum degree requirement is 24 graduate credits. Students are required to take four core courses in anthropology: 801, 802, 803 and 804. Students are required to demonstrate satisfactory proficiency in anthropological methods. This requirement can be met by taking Introduction to Research Methods in Anthropology or Anthropological Statistics or by demonstrating that equivalent study has been completed elsewhere.

Students may request a waiver for any of the above required courses, but they must demonstrate superior competence in that sub-area to the Graduate Studies Committee of the Anthropology Department. Such a course, when waived, must be replaced by a 700-or-above level course in anthropology.

A thesis or essay is required of all students; the student may receive up to 6 research credits in the case of a thesis and up to 3 credits in the case of an essay.

Thesis
The student choosing the thesis option must write the thesis in accord with

Graduate School requirements; the student choosing the essay option must meet Department requirements only.

Comprehensive Examination
The student must pass a comprehensive oral examination on the subject of the student's thesis or essay.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Certificate In Museum Studies

The Certificate in Museum Studies is designed as an addition to the MS in Anthropology for students interested in pursuing careers in the museum world. Students wishing to earn the Certificate must complete at least 27 credits distributed as follows:

1. Twelve credits of the four Anthropology core courses (801, 802, 803, 804);
2. Twelve credits of the four museum core courses (720, 721, 722, 723);
3. Three credits in the museum internship course (724).

Doctor of Philosophy in Anthropology

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- A general master's degree in anthropology covering biological and cultural anthropology and related methods and techniques of research - or equivalent preparation without the master's degree.
- An applicant with a master's degree in another field may be admitted if the student has a grade point average of 3.0 (4.0 scale) in graduate work and is approved by the departmental Graduate Admissions Committee.
- Three letters of recommendation.

Application deadlines for admission to the program are January 15th for the following Fall semester and September 15th for the following Spring semester. Applicants requesting financial assistance may have other deadlines to be considered eligible. Contact the department's graduate advisor for specific financial aid deadlines.

Reapplication
A student who receives the master's degree must formally reapply for admission to the Graduate School before continuing studies toward the PhD.

Residence
The student must meet minimum Graduate School residence requirements.

Course of Study
Minimum degree requirement is 54 graduate credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM.

The student must show preliminary evidence of ability to formulate and complete an anthropological research project. This requirement is satisfied by:

- A thesis, research paper, or research problem at the master's degree level.
- Demonstration of ability to use field, laboratory, library, or archival materials in the solution of anthropological problems, and ability to present materials in publishable form.

The student, in consultation with the major professor and advising committee, must plan a program of studies as soon as feasible after admission to the doctoral program. The program of studies must include a complement of courses in the student's major area of concentration, courses in a minor field, and demonstration of the acquisition of an approved specialized scholarly skill.

Minor
This requirement may be satisfied by minor options A or B (see general regulations and requirements of the Graduate School) or by a third option consisting of a sub-program of specialized coursework still within the broad field of anthropology. This third option must be approved by the student's advising committee.

Foreign language or specialized scholarly skill
This requirement may be satisfied by demonstrating the following:

- Proficiency in a foreign language useful in the student's career.
- Proficiency in mathematical, statistical, or computer skills.
- Proficiency in another area which meets departmental approval.

Field or laboratory research
A student must spend a period of at least three months in firsthand field or laboratory research.

Doctoral Preliminary Examination
The student must pass a doctoral preliminary examination in order to qualify for formal admission to candidacy for the degree. This examination has two components testing (a) mastery of at least one specialized topical specialty and (b) mastery of at least one defined data universe. The topical specialty and data universe must be approved by the student's advising committee, the Department's Graduate Studies Committee, and the Department faculty.

The topical specialty and the data universe should be broader than, but related to, the student's thesis topic.

A second requirement which must be met before a student is admitted to candidacy is preparation of a dissertation proposal. The proposal must be approved by the student's examination committee.

Dissertation
The candidate must prepare a dissertation reporting in the candidate's own style the results of an original research investigation representing a substantive creative contribution.

Dissertation Defense
As the final step toward the degree, the candidate must pass an oral examination in defense of the dissertation.

Public Lecture
Each student is required to present a public lecture on the subject of his/her dissertation.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

Additional information on Graduate School PhD requirements.

Courses

Anthropology (ANTHRO)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

302 Anthropology and Popular Culture. 3 cr. U/G. Aspects of popular culture including music, information technology, tourism, and film, video, and museum-spectacles in light of anthropological theory. Prereq: jr st; grade of C or better in English 102(P) or score of 637 or higher on EPT.

305 The Celtic World. 3 cr. U/G. Archaeology, folklore and literature of the Celtic peoples in the British Isles and on the continent, explored and analyzed from an anthropological and historical perspective. Prereq: jr st

306 European Archaeology. 3 cr. U/G. Old World cultural development focusing on prehistoric Europe from the Paleolithic to the Roman period; European developments compared to other parts of the Old World. Prereq: jr st; Anthro 103(P) or cons instr

307 World Archaeology: Foundations of Civilization. 3 cr. U/G. Cultural developments in selected areas of Old and New Worlds; emphasis on origins of plant and animal domestication, sedentary life, and transition to urban civilization. Prereq: jr st; Anthro 103(P) or cons instr

308 Archaeology of North America. 3 cr. U/G. Main pre-Columbian cultures on the North American continent, north of Mexico. Prereq: jr st; Anthro 103(P) or cons instr

309 Archaeology of Central and South America. 3 cr. U/G. Main pre-Columbian cultures and civilizations of Central and South America, including the Caribbean. Prereq: jr st; Anthro 103(P) or cons instr

310 Archaeology of Middle America. 3 cr. U/G. Historical development and ecological settings of cultures and civilizations in Mexico and Central America from earliest times to the Spanish conquest. Prereq: jr st; Anthro 103(P) or cons instr

314 American Indian Societies and Cultures. 3 cr. U/G. Description and analysis of selected indigenous American cultures including subsistence, sociopolitical organizations, beliefs and Euro-American Indian policy. Prereq: jr st; Anthro 102(R)

315 Peoples and Cultures of Mexico and Central America. 3 cr. U/G. Cultures of Mexico and Central America. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

316 Peoples and Cultures of South America. 3 cr. U/G. Description and analysis of aboriginal and contemporary cultures of South America. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

317 Peoples and Cultures of Brazil. 3 cr. U/G. Development of national Brazilian culture and society with emphasis on the contributions of indigenous groups, Africans, Asians, and other minorities. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

318 Peoples and Cultures of the Caribbean. 3 cr. U/G. The peoples and cultures of the Caribbean. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

319 Peoples and Cultures of the Pacific. 3 cr. U/G. Description and analysis of cultures of Melanesia, Micronesia, Polynesia and Australia. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

320 Peoples and Cultures of Africa. 3 cr. U/G. Description and analysis of the cultures of Africa, especially south of the Sahara. Satisfies L&S International req. Prereq: jr st; Anthro 102(R); grade of C or better in English 102(P) or score 637 or higher on EPT

322 Europe in Anthropological Perspective. 3 cr. U/G. Key topics in the anthropology of Europe, including nationalism and ritual, gender and poiitics, borders and immigration, and bureaucracy and citizenship. Prereq: jr st; Anthro 102(R)

323 Peoples and Cultures of Southeast Asia. 3 cr. U/G. Introduction to the communities historically associated with Southeast Asia, examining diversity of ideas, expressions and ethnicity, and nationalism. Culture in relation to these diverse groups. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

325 Japanese Culture and Society. 3 cr. U/G. Japanese culture and society, including marriage and the family, work life, education, rural and urban social organization, gender, ritual and life cycle. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

326 Peoples and Cultures of South Asia. 3 cr. U/G. The subcontinent south of the Himalayas, including India, Nepal, Pakistan, Bangladesh, and Sri Lanka. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

327 Peoples and Cultures of the Middle East. 3 cr. U/G. Social and cultural diversity in the Middle East. Satisfies L&S International req. Prereq: jr st; Anthro 102(R)

328 Comparative Studies of Music, Race, and Gender in Nationalism. 3 cr. U/G. A comparative study of the processes of nation-formation and of the roles played by race, gender, and music in constructing national identities. Prereq: jr st; Anthro 102(R); grade of C or better in English 102(P) or score 637 or higher on EPT

334 American Indians of the Southwest. 3 cr. U/G. Description and analysis of Southwestern Indian cultures, including subsistence, sociopolitical organizations, beliefs and Euro-American relations. Prereq: jr st; Anthro 102(R) & 314(R)

335 American Indians of the Southeast. 3 cr. U/G. Description and analysis of Southeastern Indian cultures, including subsistence, sociopolitical organizations, beliefs, and Euro-American relations. Prereq: jr st; Anthro 102(R) & 314(R)

336 American Indians of the Northeast. 3 cr. U/G. Description and analysis of Northeastern Indian cultures, including subsistence, sociopolitical organizations, beliefs, and Euro-American relations. Prereq: jr st; Anthro 102(R) & 314(R)

349 Seminar in Ethnography and Cultural Processes. 3 cr. U/G. How sociocultural processes are confronted and represented through the genre of ethnography; new monographs used to chart innovations in the form. Satisfies L&S Seminar req. Prereq: jr st; Anthro 102(R)

354 Anthropology of Art. 3 cr. U/G. Styles, techniques, and aesthetics of the arts of non-Western peoples; their relation to other aspects of culture, prehistoric and contemporary art in selected areas. Prereq: jr st; Anthro 102(R)

360 Introduction to Linguistic Anthropology. 3 cr. U/G. Methods, techniques, and models of analysis of linguistic anthropology and their applications to the other subfields of anthropology. Prereq: jr st; Linguis 350(P) or cons instr

366 Seminar in Aspects of Linguistic Anthropology. 3 cr. U/G. Investigations of selected topics in linguistic Anthropology, such as discourse analysis, pragmatics. Satisfies L&S Seminar req. Prereq: jr st; Anthro 360(P)

400 Human Sociobiology. 3 cr. U/G. Application of the principles of evolutionary theory and behavioral ecology to the social and cultural life of humans and other primates. Prereq: jr st; Anthro 101(R) or 102(R)

401 Primate Populations. 3 cr. U/G. Ecological behavioral genetic and multidisciplinary field studies of nonhuman primates. Prereq: jr st; Anthro 301(P) or cons instr; grade of C or better in English 102(P) or score of 637 or higher on EPT

402 Primate Evolution. 3 cr. U/G. Evolution, adaptation, and distribution of living primates, including humans, comparative primate adaptations and skeletal anatomy. Evolutionary theory and its application to the primate fossil record. Prereq: jr st; Anthro 301(P) or cons instr

403 The Human Skeleton. 3 cr. U/G. Morphological and functional examination of the skeletal system. Microscopic and biomedical considerations of bone and cartilage, age, sex, and regional differences among modern human populations. Combined lec/lab. Prereq: jr st; Anthro 301(P) or cons instr

404 Seminar in Heredity, Environment, and Human Populations. 3 cr. U/G. Evolutionary principles influencing human populations. Variation within and between human groups. Satisfies L&S Seminar req. Prereq: jr st; Anthro 301(P) or cons instr; grade of C or better in English 102(P) or score 637 or higher on EPT

405 Forensic Anthropology. 3 cr. U/G. Techniques in the forensic analysis of human skeletal material. Introduction to death investigation and forensic pathology. Prereq: jr st; Anthro 403(P)

411 Human Evolution. 3 cr. U/G. Evolution from non-human primate ancestors to anatomically modern humans. Phylogenetic and functional aspects of the human fossil record. Ecological adaptation of ancestral humans. Prereq: jr st; Anthro 301(P) or cons instr

425 Hunter-Gatherer Lifeways: Past and Present. 3 cr. U/G. Cross-cultural comparisons of hunter-gatherer societies, including archaeological, ethnohistorical, and ethnographic approaches. Prereq: jr st; Anthro 102(P) or 103(P) or cons instr

431 Urban Anthropology. 3 cr. U/G. Cross-cultural study of urban systems and subsystems; theories of evolution of urban society; concepts and methods in the study of human adaptations to cities. Prereq: jr st; Anthro 102(R)

440 Medical Anthropology. 3 cr. U/G. Comparative study of medical systems; cultural meaning of illness and the healing process; social origins of disease. Prereq: jr st; Anthro 102(P); grade of C or better in English 102(P) or score of 637 or higher on EPT

445 Psychological Anthropology. 3 cr. U/G. The relationship between individual and society; cultural influences on cognition, personality, identity, and emotion; and the comparative study of mental disorder. Prereq: jr st; Anthro 102(R)

446 The Child in Different Cultures. 3 cr. U/G. Relationship of child development to particular cultural milieus; methods of child training in different cultures and their effects on the development of adult personality. Prereq: jr st; Anthro 102(R) or Psych 101(R) or Sociol 101(R)

448 Cultural and Human Ecology. 3 cr. U/G. Relationships of human societies to natural environments; energy systems involved in processes of human adaptation; ways in which culture and society operate as dynamic components of that exchange. Prereq: jr st; Anthro 102(R)

449 Economic Anthropology. 3 cr. U/G. Uses and allocation of resources; modes of production and distribution and their relationship to kinship, politics, and other aspects of culture. Prereq: jr st

450 Political Anthropology. 3 cr. U/G. Political organization: forms of authority, responsibility, accountability, and power in societies at different levels of social complexity and in different ecological contexts. Prereq: jr st; Anthro 102(R)

460 Anthropological Theory. 3 cr. U/G. Critical examination of the development and current status of the major paradigms and theories employed in anthropological studies. Prereq: sr st; Anthro 102(R)

465 Historic Preservation in Archaeology. 3 cr. U/G. Historic preservation and cultural resource management in American archaeology; the legislative base, federal and state programs, the national register, regional planning, and research orientations. Prereq: jr st

501 Archaeology of Death. 3 cr. U/G. Archaeological study of mortuary behavior and osteology to understand cultural variability in social organization, disease, nutrition, and violence. Prereq: jr st; Anthro 103(P) or cons instr; grade of C or better in English 102(P) or score 637 or higher on EPT

525 Zooarchaeology: Analysis of Faunal Remains. 3 cr. U/G. Theory and method, including practical labs, in the analysis of animal remains from archaeological contexts. Prereq: jr st; Anthro 103(P) or cons instr

540 Applications of Anthropology. 3 cr. U/G. Uses of anthropological concepts, methods, and findings in human problems resulting from culture change. Prereq: jr st; Anthro 102(R)

543 Cross-Cultural Study of Religion. 3 cr. U/G. Various approaches to the study of religion; religions of selected non-Western societies. Prereq: jr st; Anthro 102(R)

560 Introduction to Research Methods in Anthropology. 3 cr. U/G. Problem and research design formulation. How to ask and answer scientific questions using methods and techniques common to all fields of anthropology. Prereq: jr st; Anthro 102(R)

561 Techniques and Problems in Ethnography. 3 cr. U/G. Methods of fieldwork for cultural anthropologists; design

of field studies; techniques for collection and analysis of field data; field projects. Prereq: jr st; Anthro 102(R)

562 Techniques and Problems in Archaeology. 3 cr. U/G. Methods of fieldwork in archaeology; strategies of archaeological investigations; introduction to archaeological site mapping 2 hrs lec, 3 hrs lab Prereq: jr st; Anthro 103(P) or cons instr

565 Seminar in Regional Archaeology: (Subtitled). 3 cr. U/G. Seminar in archaeology of specific geographic areas. Consult Timetable for specific semester's content. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; Anthro 103(P) or cons instr

566 Archaeological Analysis and Report Preparation: (Subtitled). 3 or 6 cr. U/G. Students will organize, describe, analyze, and interpret actual archaeological materials. Each student will assist in writing an archaeological report. Fee assessed according to nature and location of field trips. Retakeable w/chg in topic to 9 cr max. Prereq: jr st; Anthro 103(P) or cons instr

567 Archaeological Field School. 3 or 6 cr. U/G. Archaeological methods and techniques under field conditions, at one or more sites. Field work five days a week, evening lectures. Fee assessed according to nature and location of field school. Retakable to 9 cr max. Prereq: jr st; cons instr

568 Introduction to Anthropological Statistics. 3 cr. U/G. Statistical models and their basic assumptions; statistical inference in biological and cultural anthropology; probability theory; nonparametric and parametric methods. Prereq: jr st; Anthro 101(P) or 102(P) or 103(P) or cons instr

641 Seminar in Anthropology: (Subtitled). 2-3 cr. U/G. A research seminar in any of the several recognized areas of anthropology. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st, Anthro 101(P) or 102(P) or 103(P); or grad st

651 Biology of the Primates. 3 cr. U/G. Gross and microscopic functional anatomy, molecular biology, distribution, adaptation, and behavior of living nonhuman primates as related to problems of human biology and human evolution. Prereq: sr st; Anthro 301(P) or cons instr

701 Problems, Methods, and Techniques in Physical Anthropology. 3 cr. G. Lectures and individual student projects concerning problems in physical anthropology and methods and techniques useful in their solutions. Prereq: grad st; Anthro 301(P) or cons instr

705 Advanced Topics in Ethnography: (Subtitled). 3 cr. G. Critical examination of peoples and cultures of selected areas of the world. Retakable w/chg in topic to 9 cr max. Prereq: grad st

720 (620) History and Theory of Museums. 3 cr. G. History of the museum idea and its contemporary forms; educational, scientific, and changing uses of museums; museums and other institutions; museum professionalism and ethics. Prereq: grad st; cons instr

721 (621) Administration and Organization of Museums. 3 cr. G. Administration and organizational problems in modern museums; finances and budgets; legal-administrative problems; relations with support groups and volunteers, record keeping, management of museum projects. Prereq: grad st; cons instr; grade of B or better in Anthro 720(P)

722 Museum Exhibits. 3 cr. G. Exhibit techniques and technology, philosophy and ethics of museum display, care of exhibit specimens; research use of exhibits. Practical assignments in exhibit design and installation. Prereq: grad st; cons instr; grade B or better in Anthro 721(P)

723 Museum Curation. 3 cr. G. Practicum in the collection, organization, storage, care and scientific use of museum collections. Projects available in various specialties, dependent upon interest and special faculty arrangements. Prereq: grad st; cons instr; grade B or better in Anthro 721(P)

724 Internship in Museum Studies. 3 cr. G. Supervised practical experience in museums arranged on an individual basis. Prereq: grad st; Anthro 720(P); cons instr

740 Advanced Topics in Medical Anthropology: (Subtitled). 3 cr. G. Selected problems in comparative study of health, illness, and health care systems. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Anthro 440(R) or Sociol 331(R)

744 Theories of Social Action: Understanding Agency & Social Structure. 3 cr. G. Seminar on theories of social action. Practice and performance theories and the structure vs. agency debate. Prereq: grad st

761 Cross-Cultural Research: Problems in Comparative Method and Theory. 3 cr. G. Systematic review of concepts, methods and selected findings in the area of comparative, largely cross-cultural, research in anthropology and related fields. Prereq: grad st

762 Advanced Archaeological Analysis: (Subtitled). 3 cr. G. Study and practice in major phases of archaeological analysis. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

768 Topics in Advanced Research Design in Anthropology. 3 cr. G. Methods of fitting various models to qualitative categorizations of archaeological, ethnographical, and biological data. Includes chi-square and multiclassificatory chi-squares, scaling, cluster analysis, markov chains, and game theory. Prereq: grad st; Anthro 568(R)

797 Study Abroad: (Subtitled). 1-6 cr. G. Allows graduate students to enroll in UWM sponsored program before course work level, content, and credits are determined and/or in specifically-prepared program course work. Retakable w/ chg in topic. Prereq: grad st; acceptance in Study Abroad Prog

801 A Survey of Physical Anthropology. 3 cr. G. Reviews biological principles essential to an understanding of evolution. Reviews fields central to physical anthropology and human evolution: primatology, paleontology, anatomy, human genetics, population genetics. Prereq: grad st

802 Perspectives on Prehistory. 3 cr. G. Surveys current theoretical and methodological concepts in archaeology, and their application to specific research problems. Readings include studies from both the old and new worlds. Prereq: grad st

803 Survey of Cultural Anthropology. 3 cr. G. A survey of major theoretical and methodological issues central to cultural anthropology. Prereq: grad st

804 Linguistic Anthropology. 3 cr. G. A survey of major theoretical and methodological issues central to cultural anthropology. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr will be assessed. Prereq: grad st

920 Advanced Seminar in Museological Problems. 3 cr. G. Use of museum collections/museums to examine museum work regarding legal considerations, ethics, documentation; use of collections to test theories and develop conceptual exhibits. Prereq: grad st; Anthro 720(P)

940 Seminar in Problems in Cultural Anthropology: (Subtitled). 3 cr. G. Content varies. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

942 Seminar in Prehistory and Archaeology: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

950 Seminar in Problems in Physical Anthropology: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

969 Seminar in Linguistic Anthropology: (Subtitled). 3 cr. G. Advanced topics in the anthropological study of language. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

990 Research and Thesis. 1-3 cr. G. - Prereq: grad st; writ cons instr; writ cons dept chair

999 Advanced Independent Study. 1-3 cr. G. - Retakable to 6 cr max. Prereq: grad st; writ cons instr

ARCHITECTURE

School of Architecture and Urban Planning

Degrees Conferred: Master of Architecture; PhD in Architecture
Phone: (414)229-4015
FAX: (414) 229-6976
E-mail: jsinger@uwm.edu
Web site: www.uwm.edu/SARUP

The Department of Architecture offers programs of study designed to prepare students for professional practice and for careers in architectural consulting, research and teaching.

M Arch Program
The Master of Architecture, the first professional degree offered by the Department of Architecture, is accredited by the National Architectural Accrediting Board (NAAB). The degree program requires 2 or 3-1/2 years of graduate study, depending on the applicant's previous academic background and qualifications. It offers a wide range of courses, with particular strengths in the areas of building design, environment-behavior studies, and urban design and development.

The Master of Architecture curriculum emphasizes studio courses. Each of these studios is taught by faculty members who also offer courses in selective subjects.

A foreign studies program allows students to combine foreign travel and study under the tutelage of a departmental faculty member for program credit. The location of the program may vary from year to year. Additional costs of travel, lodging, etc., must be borne by the student.

In the United States, most state regulation boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

PhD Program
The Department offers a program of advanced study and research in environment-behavior studies leading to the PhD degree in Architecture. Environment-behavior studies is a multidisciplinary field devoted to research on the mutual interactions of the physical environment at all scales and socio-cultural behavior at all levels of analysis, with applications to architectural design, urban design and planning, and environmental policy. The PhD program is appropriate for persons who wish to study environmental issues from a multidisciplinary research perspective, and who seek research, consulting, or academic careers in architecture or any of the environmental professions or allied fields.

M Arch/MUP Program
In cooperation with the Department of Urban Planning, the Department of Architecture offers a Master of Architecture/Master of Urban Planning program that prepares students for careers requiring preparation in both fields. Both the M Arch and MUP degrees are awarded simultaneously upon completion of this 72-credit program. For more detailed information on this program see Credits and Courses section below.

Certificate in Preservation Studies
A certificate program in Preservation Studies is available to Master of Architecture students who wish to pursue careers in historic preservation in professional architectural practice or in government preservation agencies.

The certificate program is designed to provide such students with a solid background in the political, social, legal and economic aspects of preservation and the development of research skills for examining the history as well as the fabric of older and historic buildings. Design and construction considerations for the adaptive use of historically and architecturally significant structures are emphasized in the coursework.

Certificate in Real Estate Development
The Certificate in Real Estate Development is designed to provide a formal program of studies for Master of Architecture or Master of Urban Planning students who wish to pursue careers in real estate development in combination with professional architectural practice or work with a private or public developer. For more information, see Certificate section below.

Graduate Faculty

PROFESSORS

Ahrentzen, Sherry, Ph.D., University of California-Irvine
Cohen, Uriel, D. Arch., University of Michigan
Greenstreet, Robert, Ph.D., Oxford Brookes University
Hubka, Thomas C., M. Arch., University of Oregon
Ollswang, Jeffrey, M. Sc., University of Strathclyde
Rabinowitz, Harvey, M. Arch., Rensselaer Polytechnic Institute
Van Oudenallen, Harry, M. Arch., University of Oregon
Weisman, Gerald. Ph.D., University of Michigan
Witzling, Larry, Ph.D., Cornell University

ASSOCIATE PROFESSORS

Forseth, Kevin, M. Arch., University of Wisconsin-Milwaukee
Hanlon, Don, M. Arch., University of Washington, Chair
Hubbard, Nancy, Ph.D., Northwestern University
Keane, Mark, M.Arch, University of Illinois-Champaign/Urbana
Krause, Linda, Ph.D., Yale University
Shields, James W., M. Arch., University of Wisconsin-Milwaukee
Snyder, Gil S., M. Arch., Columbia University
Stagg, Josef, D. Arch., University of Michigan
Utzinger, Michael, M.S., University of Wisconsin-Madison
Wasley, James H., M.Arch., Rich University
Wishne, Brian, M. Arch., Princeton University

ASSISTANT PROFESSORS

Cornelius, Chris T., M.Arch., Univeristy of Virginia

Isaacs, Raymond, Ph.D., University of California-Berkeley
La, Grace E., M.Arch., Harvard Graduate School of Design
Liu, Celia, M.Arch., University of Virginia
Schermer, Brian, Ph.D., University of Michigan
Talbott, Kyle, M.Arch., Texas A&M University

Note

Individuals seeking to use the School's Shop must first provide evidence of personal accident and health insurance to the Dean's office. Since no accident or health insurance is provided to any user by the University, access to this resource will be prohibited to uninsured individuals.

Master of Architecture

Admission to 2-Year Program
An applicant with an undergraduate major in architecture from UWM or a school with an accredited program in architecture similar to the BS in Architectural Studies at UWM must meet Graduate School requirements plus these Department of Architecture requirements to be considered for admission to the program:

- Undergraduate cumulative grade point average in architectural studies of at least 3.0 (4.0 scale).
- Completion of at least three undergraduate design studios.
- Three letters of recommendation from three previous faculty and/or members of the profession.
- Submission of test results from the General Test portion of Graduate Record Examination.
- Portfolio of architectural studies work.
- For foreign applicants whose first language is not English, a score of at least 250 on the computer-based (or 600 on the paper based) Test of English as a Foreign Language (TOEFL). A score of 7.0 on the International English Language Testing System (IELTS) examination will be accepted in lieu of the TOEFL. Applicants with scores from 213 to 247 on the computer-based TOEFL (or 550 to 599 on the paper-based), or 6.5 on the IELTS, will be considered for admission with the stipulation that further course work in English be taken.

Admission to 3-1/2 Year Program
An applicant with an undergraduate degree in a field other than architecture may be considered for admission with an additional 35 credits required; these credits do not count toward the degree. An applicant with a non-architecture major is normally admitted with three semesters of foundation courses (35 credits) required, subject to re-evaluation after the first semester.

Admission to the 3-1/2 year program requires, in addition to general Graduate School requirements, an undergraduate GPA of at least 3.0 (4.0 scale), submission of test results from the General Test portion of the Graduate Record Examination (and TOEFL or IELTS, for foreign students), three letters of recommendation, and a portfolio of written and/or visual work.

Admission to M Arch/MUP Program
Candidates seeking admission to the M Arch/MUP program must apply to and be admitted to both programs. The requirements for admission to the Urban Planning Master's degree program are detailed in the Urban Planning section of this Bulletin.

Major Professor as Advisor
The student must have a professor to advise and supervise the student's studies as specified in Graduate School regulations.

Credits and Courses - 2-Year Program
The minimum degree requirement is 48 graduate credits, 39 of which must be in architecture, with a distribution of at least 33 credits in the following 4 categories:

- Technology: Arch 510, 516, and Arch 520 or 522, for a total of 9 cr.
- Theory: One of the Arch 531/532/533 course series and one additional course, for a total of 6 cr.
- Practice: Arch 581 and one other course, for a total of 6 cr.
- Design: Arch 825 and one additional studio for a total of 6 cr. A minimum grade of "B" (3.00) in each studio is required.

A current list of specific courses approved for distribution credit is available from the Department. Students who have completed any of these courses or their equivalents as undergraduates may substitute architectural electives. This distribution requirement must be met and Arch 794, Pre-Thesis or Master's Project Seminar, must be completed prior to enrollment in the required 6 cr. of Arch 890 or 891, Master's Thesis or Master's Project. At least 18 of the 48 required credits must be completed at the 700 level or above.

Credits and Courses - 3-1/2 Year Program
The entry requirements totaling 35 cr. are as follows:
ARCH 300 Architectural History and Theory
ARCH 301 Architectural Structures & Construction
ARCH 302 Architecture and Human Behavior
ARCH 303 Architecture and Environmental Response
ARCH 580 Graphic Techniques for Architects
ARCH 781 Virtual Modeling
ARCH 810 Architectural Design I
ARCH 820 Architectural Design II
One ARCH design studio at 600 or 800-level with minimum grade of B

Some of these requirements may be waived by the M Arch Committee upon an applicant's acceptance to the program or upon appeal, based on equivalent work. The requirements in the remaining two years are those of the 2-year program, as described above.

M Arch/MUP Program

Joint program candidates must complete all of the requirements of the M Arch degree and the requirements stipulated by the Department of Urban Planning. The Urban Planning Master's program is detailed in the Urban Planning section of this Bulletin.

Thesis or Master's Project
The student must submit an acceptable thesis or master's project and orally defend it. The student in the M Arch/MUP

program must also take and pass the comprehensive exam in Urban Planning.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Certificate in Preservation Studies
The Certificate in Preservation Studies is designed to provide a formal program of studies for Master of Architecture students who wish to pursue careers in historic preservation in professional architectural practice or in governmental preservation agencies.

Students wishing to earn the Certificate must be enrolled in the Master of Architecture program at the University and must complete a minimum of 21 credits from the following groups of courses:

Preservation Core Required Courses (12 credits):
Arch 560 Introduction to Historic Preservation
Arch 760 History of Building Technology
Arch 835 Studies in Architectural History and Precedent: Historic Preservation

Preservation Master's Thesis or Master's Project (6 credits):
Arch 890 Master's Thesis
Arch 891 Master's Project

Preservation Elective Course (3 credits):
Arch 790 Special Topics in Preservation
Arch 531 Historic Concepts of Architecture
Arch 553 Vernacular Buildings and Groupings
Arch 561 Measured Drawings for Architects
Arch 562 Preservation Technology Laboratory
Arch 780 The Built Environment and Real Estate Development
ArtHist 459 American Architecture
ArtHist 461 Early Modern Architecture in the Midwest
ArtHist 462 Frank Lloyd Wright
ArtHist 701 Colloquium in Architectural History
Hist 450 Growth of Metropolitan Milwaukee
Hist 451 History of Wisconsin
Hist 651 Introduction to Material Culture in Historical Agencies
Hist 700 Introduction to Public History
Hist 713 Historical Research Methods

Students wishing to obtain the Certificate must declare their intention by applying to the Department of Architecture prior to completion of the three Preservation Core Required Courses. After completing the program requirements, a Certificate in Preservation Studies will be awarded by the Department of Architecture simultaneously with the award of the Master of Architecture degree.

Certificate in Real Estate Development
Students wishing to earn the Certificate must be enrolled in the Master of Architecture or Master's of Urban Planning program at the University and must complete a minimum of 21 credits from the following groups of courses.

Real Estate Required Core Courses (15 credits)

- Arch 780 The Built Environment and Real Estate Development, 3 cr
- Arch 794 (M Arch. students) Prethesis or Master's Project Seminar, emphasis on Real Estate Development, 3 cr
  or UrbPlan 999 (MUP students) Independent Study, emphasis on Real Estate Development, 3 cr
- Arch 890 or 891 (M Arch. students) Thesis or Master's Project, emphasis on Real Estate Development, 6 cr
  or UrbPlan 990 (MUP students) Graduate Thesis, emphasis on Real Estate Development, 6 cr
- Bus 483 Property Development and Management, 3 cr
  or Bus 481 Real Estate Finance, 3 cr

Real Estate Electives (6 credits)
Arch 560 Introduction to Historic Preservation
Arch 845 Studies in Urban and Community Design theory (6 credits)
Arch 749 Urban Design as Public Policy
Arch 792 Independent study (Internship)
UrbPlan 651 Land Use Planning Practice
UrbPlan 661 Neighborhood Planning and Revitalization
UrbPlan 684 Planning Local Economic Development
UrbPlan 762 Housing Markets and Public Policy
UrbPlan 991 Internship (real estate focus)
UrbStd 720 Theory and Method in Local Economic Development

Doctor of Philosophy in Architecture

Admission
The PhD program seeks to maintain a rich and diverse mix of students and thus encourages applicants with backgrounds in architecture, allied design fields, and/or the social and behavioral sciences. Likewise, the program is open to applicants holding undergraduate as well as graduate degrees. It is most important that applicants have a strong commitment to the conduct of advanced architectural research, building upon the concepts and theories of environment-behavior studies.

Applicants must meet Graduate School requirements and one of these departmental requirements to be eligible for consideration for admission to the program:

- A professional B Arch or M Arch degree in Architecture or a master's degree in a related environmental professional field.
- A master's degree in any field and significant experience in the practice, research or teaching of Architecture or related professional fields.
- A bachelor's degree in any other field. Holders of such degrees will be advanced to full doctoral student status after they have completed some pre-doctoral preparation in research methods, environment-behavior studies, and/or architectural design and communication, consonant with their own program of study.

In addition, applicants must submit test results from the General Test portion of the Graduate Record Examination. For foreign applicants, whose first language is not English, a score of at least 250 on the computer-based (or 600 on the paper-based) Test of English as a Foreign Language (TOEFL) is required. A score of 7.0 on the International English Language Testing Systems (IELTS) examination will be accepted in lieu of the TOEFL.

Reapplication
A student who has received a master's degree in Architecture or in Urban Planning from the University of Wisconsin-Milwaukee must formally reapply for admission to the Graduate School before continuing studies toward the PhD degree.

Major Professor as Advisor
Upon admission, each student is assigned an advisor, usually the Chair of the PhD Program Committee. In the first year, each student defines an area of specialization within the major field of environment-behavior studies and a minor area of studies in two or more disciplines outside the major. Each student selects Major and Minor Professors to advise and supervise course work and independent readings in preparation for the area of specialization examination and completion of minor requirements. Upon admission to candidacy, each student defines a dissertation topic and selects a Major Professor as Dissertation Chair. Selection of the area of specialization and dissertation topic and of the Major and Minor Professors and Dissertation Chair is subject to approval by the PhD Program Committee.

Course of Study
The program is structured in three stages:

1. Completion of a minimum of one year of formal course work (4 required core courses in theory, environment-behavior studies, research methods, and data analysis), an intermediate research project (including 3-6 credits of Arch 791), and the minimum residence requirement of 27 graduate credits subsequent to attaining full doctoral student status and 54 graduate credits beyond the baccalaureate degree.

2. Completion of the major area of specialization (minimum of 12 graduate credits, including a maximum of 3 credits in Arch 792) and of the minor area of study (minimum of 9 graduate credits in two or more disciplines outside the major), and passing doctoral preliminary examinations in environment-behavior studies and the area of specialization.

3. Completion of a research dissertation that makes an original contribution to the field.

Depending on background preparation and amount of time spent in full-time residency, students should be able to complete the degree in approximately four to six years. Individual timetables will vary depending upon background preparation and time spent in full-time residency.

For more information on these requirements, please consult the Department of Architecture PhD Policies and Procedures Handbook.

Foreign Language Requirement
A foreign language requirement is optional, depending upon the recommendation of the student's Major Professor and the PhD Program Committee.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examinations
The student must pass doctoral preliminary examinations to qualify for formal admission to candidacy for the degree. The examinations are comprised of three parts, which may be taken at the same or different times:

1. A general comprehensive examination in environment-behavior studies.

2. An examination of the student's major area of concentration.

3. An examination of the minor field of study.

For more information on these examinations, consult the Department of Architecture PhD Policies and Procedures Handbook.

Candidacy
The student is officially admitted to candidacy for the PhD degree after completing the residence requirement, core courses and intermediate research project, completing the courses in the area of concentration and minor field, and passing the three doctoral preliminary examinations (and language examination, if required) to the satisfaction of the PhD Program Committee.

Dissertation
The candidate must design, conduct, and write a research dissertation which demonstrates ability to formulate a research topic and pursue independent and original research that makes a contribution to the field. Selection of the dissertation topic, Dissertation Chair, and Dissertation Committee is subject to approval of the PhD Program Committee.

Dissertation Defense
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation. For more information on the dissertation defense, consult the Department of Architecture PhD Policies and Procedures Handbook.

Continuation
For further information about departmental policies in the PhD program, please consult the Department of Architecture PhD Policies and Procedures Handbook.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Doctor of Philosophy Degree chapter of the *Graduate Student and Faculty Handbook.*

Courses

Architecture (ARCH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

300 Architectural History and Theory. 3 cr. U/G. Introduction to architectural history and its theoretical base. The course covers classical architecture to the present, focusing on the theories underlying architecture of a period. Prereq: jr st & acceptance to level 2; or grad st

301 Architectural Structures & Construction. 3 cr. U/G. The behavior of structures, structural materials and planning, and the construction of buildings. Prereq: jr st, acceptance to level 2; or grad st

302 Architecture and Human Behavior. 3 cr. U/G. Introduction to behavioral, social and cultural factors and their implications for the design and planning of the built environment. Prereq: jr st & acceptance to level 2; or grad st

303 Architecture and Environmental Response. 3 cr. U/G. Investigation of environmental control and life safety requirements and their implications on architectural form and design. Prereq: jr st & acceptance to Level 2; or grad st

326 Energy Design Fundamentals. 3 cr. U/G. Energy-related issues as they apply to site planning and architectural design, including thermal comfort, site climate analysis, building thermal response, and solar system design. Prereq: jr st; Arch 301(P)

330 Design Methodology. 3 cr. U/G. Survey of the different methods and techniques used to solve problems encountered in architectural design. Prereq: jr st; Arch 300

331 Design Theory. 3 cr. U/G. Study of the major theoretical approaches to architectural design. Prereq: jr st; Arch 300(P)

340 Urban Design. 3 cr. U/G. Survey of urban design, including the study of precedents, recent philosophy, design vocabulary, behavioral responses, and implementation strategies. Prereq: jr st; Arch 300(P)

380 Drawing in Architecture. 3 cr. U/G. Visual communication skills are developed in relation to basic design theory and architectural design process. Prereq: jr st & acceptance to level 2; or grad st

382 Computers in Architecture. 3 cr. U/G. Computer graphics lab course utilizing AUTOCAD and other programs. Prereq: jr st & acceptance to level 2; or grad st

383 Landscape Architecture. 3 cr. U/G. Introduction to the history of landscape architecture as well as the process of contemporary landscape architecture and its relationship to contemporary architecture. Prereq: jr st & acceptance to level 2; or grad st

501 Survey of Architectural Engineering Theories. 3 cr. U/G. Investigation of the scientific basis of architectural engineering technologies relevant to professional practice, including theories, applications and new technologies. Prereq: sr st; Arch 301(P)

510 Survey of Structural Analysis and Design. 3 cr. U/G. Statics, strength of materials and analysis of simple structural elements and systems. Design and economics of simple building structures. Prereq: sr st & Arch 301(P); or grad st

516 Building Construction. 3 cr. U/G. Review and analysis of architectural construction systems in relation to building projects of various scales. Construction techniques and contract documentation are covered. Prereq: sr st; Arch 301(P)

520 Environmental Systems: Illumination and Thermal Comfort. 3 cr. U/G. The impact of visual and thermal comfort requirements on the design of building enclosures, lighting systems and HVAC systems. Prereq: sr st, Arch 301(P) & 303(P); or grad st

521 Environmental Systems: Resources-Fluid Distribution Systems. 3 cr. U/G. Water resources supplies and treatment, distribution and disposal systems. Atmospheric and thermal comfort. Air treatment, distribution systems, and related energy systems for human comfort. Prereq: sr st & Arch 303(P); or grad st

522 Environmental Systems: Lighting and Acoustical Design. 3 cr. U/G. The development and application of visual/auditory comfort criteria, lighting and acoustical design, and their architectural design implications. Prereq: sr st & Arch 303(P); or grad st

531 Historic Concepts of Architecture. 3 cr. U/G. Examination of concepts and theories of architecture and urban design before the modern movement; includes typological, formal, technological and philosophical analysis. Prereq: sr st; Arch 300

532 Modern Concepts of Architecture. 3 cr. U/G. Examination of concepts and theories of architecture and urban design since the modern movement; includes typological, formal, technological and philosophical analysis. Prereq: sr st; Arch 300

533 Topics in Architectural Theory: (Subtitled). 3 cr. U/G. This variable content course will focus on the study of a particular architectural theory or the work of an individual architect and its theoretical base. Retakeable with change in topic to max of 6 cr. Prereq: sr st & Arch 300(P)

534 Field Study: (Subtitled). 3 cr. U/G. Theoretical developments and their historical contexts are explored in a particular setting. Focus and setting are announced in advance. Retakeable with change in topic to max of 6 cr. Prereq: jr st; Arch 300(P)

535 Pattern Language. 3 cr. U/G. Examination of the work of Christopher Alexander and the Center of Environmental Structure seeking to develop a design theory sensitive to context, user, and form. Prereq: sr st & Arch 300(P)

550 Seminar in Building Types and Settings. 3 cr. U/G. Development and usage of various building types and settings based upon social, behavioral, political, and economic factors. Prereq: sr st, & Arch 300(P) or 302(P), or cons instr

551 American Vernacular Architecture. 3 cr. U/G. Introductory seminar on the historical development of all forms of vernacular and popular architecture. Buildings are analyzed in detail within their cultural contexts. Prereq: sr st & Arch 300(P)

553 Vernacular Buildings and Groupings. 3 cr. U/G. Study of the patterns and characteristics of human settlements and individual structures built according to local traditions. Prereq: sr st; Arch 302

557 Behavioral Factors in Housing Design. 3 cr. U/G. Review of behavioral, social, and cultural factors in housing design. Discussion of findings and their impact on design. Prereq: sr st; Arch 302 or cons instr

559 Aging and the Environment. 3 cr. U/G. Seminar on aging, human services, and the built environment. Implications for policy, planning, and design. Special attention to urban planning, urban design, housing, and clinical facilities. Prereq: sr st; Arch 302 or cons instr

560 Introduction to Historic Preservation. 3 cr. U/G. Research, discussion and case study development to explore political, social/historical, economic and design/restoration issues of preservation and adaptive use of buildings. Prereq: sr st; Arch 300

561 Measured Drawing for Architects. 3 cr. U/G. History and theory of measured drawings, field measuring and recording techniques, and production of drawings based on procedures of the Historic American Building Survey. Prereq: sr st & Arch 301(P)

562 Preservation Technology Laboratory. 3 cr. U/G. Laboratory focusing on the historic preservation of architectural detail. Students will examine historic technologies, write papers on them, and execute them in detail. Prereq: sr st; Arch 301

580 Graphic Techniques for Architects. 3 cr. U/G. Architectural presentation techniques focusing on the application of various graphic media including color pencil, pastel, watercolor, marker, and airbrush. Enrollment priority given to new 3 1/2 year M.Arch students. Prereq: sr st & acceptance to level 2; or grad st

581 Law and Professional Practice for Architects. 3 cr. U/G. An introduction to architectural practice; content includes office procedures, contract management, legal constraints. Prereq: sr st & acceptance to level 2; or grad st

582 Advanced Computer Applications in Architecture. 3 cr. U/G. Advanced applications of computer-aided design (CAD) to architectural design and practice. Study of graphic database, database management and CAD systems programming. Prereq: sr st; Arch 382

584 Urban Landscape Architecture. 3 cr. U/G. Study of historic and contemporary exterior urban space, urban site planning methodology; design and detailing of exterior urban space; pedestrian and vehicular movement; use of plant materials. Prereq: sr st & acceptance to level 2; or grad st

585 Research Methods in Architecture. 3 cr. U/G. Review of quantitative and qualitative research procedures, instruments, and data analysis techniques for use in professional design applications and architectural research. Prereq: sr st & Arch 302(C)

586 Programming for Architectural Design. 3 cr. U/G. Analysis and development of architectural programs: goals, user requirements, socio-cultural determinants, design criteria, site selection and analysis, building type analysis, code analysis, and cost projections. Prereq: sr st; Arch 302; Arch 585 recom

587 Post-Occupancy Evaluation of Built Environments. 3 cr. U/G. Evaluation of built environments: technical, functional, and socio-behavioral factors; design of post-occupancy evaluation studies and instruments; and analysis of a built environment. Prereq: sr st; Arch 302; Arch 585 recom

692 Foreign Studies Studio: (Subtitled). 6 cr. U/G. Design fieldwork in foreign setting stressing historical context, site analysis, urban design and theoretical issues. Thematic focus determined by faculty directing program. Not retakeable for cr. Prereq: jr st; Arch 410(P) or cons dept chair

716 Art of Detailing. 3 cr. G. Seminar/workshop dealing with creative aspects of architectural construction technology. Building details are analyzed with respect to technical appropriateness, durability, context and design consequences. Prereq: grad st; Arch 516(P) & 1 600 or above level studio; Arch 501(R) or 510(R)

722 Daylighting and Architectural Design. 3 cr. G. Study of the relationships between architectural design, illumination, visual tasks, energy conservation and daylighting design. Prereq: grad st; Arch 520 or 522 or cons instr

734 Readings in Contemporary Architectural Theory and Criticism. 3 cr. G. Examination of contemporary theory and criticism, particularly as developed both in architecture and other humanistic disciplines such as philosophy, literature, and art. Prereq: grad st & Arch 531(P) or 532(P)

741 Behavioral Factors in Urban Design. 3 or 6 cr. G. Review of current environment-behavior research on urban form. Discussion of findings and their implications for urban design. Prereq: grad st; Arch 302 or cons instr, cons instr for 6 cr

749 Urban Design as Public Policy. 3 cr. G. Orients students in urban planning to urban design problems as matters of public policy with focus on the analysis and implementation of urban design proposals rather than on the techniques used to generate such proposals. Not open to students who have cr in UrbPlan 857 which is identical to Arch 749. Prereq: grad st

750 Proseminar in Environment-Behavior Studies. 3 cr. G. Intensive review of important findings in environment-behavior studies from research and professional literature and analysis of impacts on the built environment. Prereq: grad st; Arch 585(C), or cons instr

751 Theories of Environment Behavior Relations. 3 cr. G. Systematic review and critique of the major concepts, models, and theories of environment-behavior studies; their adequacy relative to current data; needed tests; applicability to environmental policy, planning, and design. Prereq: grad st; Arch 750; UrbPlan 740 or equiv; or cons instr

755 Third World Design. 3 cr. G. Seminar in community and housing design for the third world. Ethnographic, anthropological, and environment-behavior research is used to establish a rationale for individual conceptual design proposals. Prereq: grad st; Arch 302 or cons instr

760 History of Building Technology. 3 cr. G. An examination of evolving technology in architecture from antiquity to the mid-twentieth century, concentrating on examples in the united states; includes field trips. Prereq: grad st; Arch 300

780 The Built Environment and Real Estate Development. 3 cr. G. A course providing an understanding of the relationships between economics and architectural design and skills in manipulation of variables in both areas on real projects. Prereq: grad st

781 Virtual Modeling. 2 cr. G. Modeling, rendering and other digital methods used in architectural design. Prereq: grad st & Arch 810(C)

785 Advanced Research Methods in Architecture. 3 cr. G. Advanced treatment of existing and emerging qualitative and quantitative research and analysis methods, including research designs, scholarly, structural, field, survey, experimental and multivariate methods. Prereq: grad st; Arch 585; UrbPlan 740 or equiv or cons instr

790 Special Topics: (Subtitled). 1-3 cr. G. Development and presentation of new material on an experimental, one-term

basis. Specific cr & any additional prereqs announced in schedule of classes whenever course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

791 Directed Research. 1-3 cr. G. Student participation in research projects under faculty supervision. Master's students may retake for max of 3 cr. Doctoral students may retake for max of 12 cr. Prereq: grad st; cons instr

792 Independent Studies and Research. 1-3 cr. G. Independent investigation of issues related to architecture. Master's students may retake for max of 3 cumulative cr; doctoral students may retake for max of 12 cr. Prereq: grad st; cons instr

794 Pre-Thesis or Master's Project Seminar. 0-3 cr. G. Topic identification and background preparation to be completed by the end of the term preceding thesis or master's project. Students needing 0 cr should enroll for Arch 794-Z; those needing 1-3 cr should enroll for Arch 794-C and specify number of cr. Students who enroll for 0 cr will be assessed a 1-cr fee by the University. Prereq: grad st; eligibility for thesis or master's project next semester

800 Graduate Introductory Studio. 3 or 6 cr. G. Introductory studio experience for entering graduate students emphasizing visual and technical skill development. Projects focus on basic design concepts and architectural design theory. Course will not count toward doctoral program requirements. Prereq: grad st

810 Architectural Design I. 6 cr. G. This design studio introduces students to theories and methodologies of architectural design. Design projects explore various design procedures, graphic techniques, and building tectonics. Prereq: grad st

815 Studies in Architectural Technology and Theory: (Subtitled). 6 cr. G. This design studio emphasizes technology and analytical theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

820 Architectural Design II. 6 cr. G. This design studio further develops the theories and methodologies of architectural design. Design projects emphasize specific issues of theory, structure, context, program, and graphic communication. Prereq: grad st; Arch 810(P)

825 Comprehensive Design Studio: (Subtitled). 6 cr. G. Advanced design studio emphasizing schematic design to detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building materials and assemblies. Retakeable w/ chg in topic to 12 cr max. Prereq: grad st & Arch 516(C)

833 Chicago Design Critic Studio. 6 cr. G. Advanced design studio directed by an eminent Chicago architect. Specific content is announced in advance. Prereq: grad st

834 Distinguished Visiting Design Critic Studio. 6 cr. G. Advanced design studio directed by a nationally or internationally known architect. Specific content is announced in advance. Prereq: grad st

835 (effective 01/24/2005) Studies in Architectural History and Precedent: (Subtitled). 6 cr. G. This design studio emphasizes precedent analysis, historical analysis and historical preservation theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

835 Studies in Architectural History and Precedent: (Subtitled). 6 cr. G. This design studio emphasizes precedent analysis, historical analysis and historical preservation theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

836 Studies in Form and Composition: (Subtitled). 6 cr. G. This design studio emphasizes formal compositional theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

837 Competitions Studio. 6 cr. G. Advanced design studio utilizing architectural competitions to focus on concept development, technical competence and graphic presentation. Prereq: grad st

845 Studies in Urban and Community Design Theory: (Subtitled). 6 cr. G. This design studio emphasizes urban and community design theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

855 Studies in Social and Critical Theory: (Subtitled). 6 cr. G. This design studio emphasizes social and critical theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

875 Studies in Facility Planning and Design: (Subtitled). 6 cr. G. This design studio emphasizes facility planning and design theories and methods. Retakeable with change in topic to max of 12 cr. Prereq: grad st

885 Studies in Building Typology: (Subtitled). 6 cr. G. This studio emphasizes the relationship among building use, formal pattern, and institutional history. Retakeable with change in topic to max of 12 cr. Prereq: grad st

890 Masters Thesis. 1-9 cr. G. Individualized study under supervision of a faculty committee selected by student. See graduate school guidelines for thesis preparation. May be repeated to max of 9 cr. Prereq: grad st; cons advisor; cons chair if taken before final semester

891 Master's Project. 1-9 cr. G. Individualized study under supervision of a faculty committee selected by student. Student is responsible for identifying subject and conducting study to committee's satisfaction. May be retaken to max of 9 cr. Prereq: grad st; cons advisor; cons chair if taken before final semester

990 Doctoral Dissertation. 1-12 cr. G. Research toward the completion of the PhD dissertation under the direction of the candidate's dissertation chair and committee. May be retaken. Prereq: grad st; admis to candidacy for the PhD; & cons PhD prog comm

ART

Milton and Lillian Peck
School of the Arts

Degrees Conferred: MA, MFA in Art; MS in Art Education
Phone: (414) 229-6053
FAX: (414) 229-2973
E-mail: artgrado@uwm.edu
Web site: www.uwm.edu/SFA/Art

The Department of Visual Art offers graduate programs of study in art and art education. Fields of concentration are available in the following studio arts areas: Ceramics, Graphic Design, Painting and Drawing, Fibers, Photography, Printmaking, Sculpture, Jewelry/Metalsmithing, and InterMedia.

The **Master of Arts in Art** is a 30-credit program with advanced study and concentration in one or more areas of studio art work. It is designed for the student who desires graduate training as a professional artist. The student's plan of studies is tailored according to whether or not that person expects to continue formal studies in the Master of Fine Arts program.

The **Master of Fine Arts in Art** is a 30-credit program of concentrated study beyond a Master of Science or a Master of Arts degree. It is designed for the student who desires further graduate training as a professional artist or training as a teacher-artist in art schools and universities.

The **Master of Science in Art Education** is a 30-credit program with advanced work in both studio art and art education. It is designed for experienced teachers of art and others who hold certification to teach art and wish further training as teachers-artists-researchers.

The Department's facilities and services include fully equipped studios housed in several buildings, one of which is an Arts Center. The Institute of Visual Arts (inova) galleries of the University of Wisconsin-Milwaukee Art Museum are also housed within the Arts Center providing a year-round schedule of exhibitions. The Department offers a schedule of workshops and special lectures each year. In addition, a limited number of individual graduate student studios are located in a research facility approximately one mile from campus.

Usually, four Frederick R. Layton Fellowships are awarded each year, two to incoming graduate students and two to continuing students, depending on funding. Information and application forms may be obtained from the Department of Visual Art Office of Graduate Studies.

A limited number of Teaching Assistantships and Project Assistantships are offered through the Department of Visual Art. Information and application forms may be obtained from the Department of Visual Art Office of Graduate Studies.

Students applying for admission to the three graduate programs in Art, should note these application deadlines:

- For admission for Summer or Semester I, the Graduate School recommended deadline is January 1, with portfolios and letters of recommendation due in the Department of Visual Art Office of Graduate Studies by January 7.

The Institute of Visual Arts (inova), oversees a year-round schedule of exhibitions in the two gallery sites and houses a study facility with contemporary art publications.

In addition the Department offers a schedule of workshops, lectures and seminars.

Graduate Faculty

PROFESSORS

Balsley, John, M.F.A., Northern Illinois University
Bellavance, Leslie, M.F.A., University of Chicago
Brauner, Marna, M.F.A., California College of Arts and Crafts
Foster, Steven, M.F.A., University of New Mexico
Gunderman, Karen, M.F.A., University of Michigan-Ann Arbor
Hall, Lane, M.F.A., University of Wisconsin-Madison
Kraus, Charles, M.F.A., Southern Illinois University
Sargent, Denis, M.F.A., University of Iowa
Vansen, Leslie, M.F.A., University of Colorado

ASSOCIATE PROFESSORS

Cho, Kyoung Ae, M.F.A., Cranbrook Academy of Art
Davis-Benavides, Christoper, M.F.A., University of Wisconsin-Madison
Knight, Kay, M.F.A., Washington University
Pevnick, Stephen, M.F.A., Washington University
Samerjan, Stephen, M.F.A., University of California-Santa Barbara
Schermer, Pamela, M.F.A., Queens College, Chair

ASSISTANT PROFESSORS

Beckman, Kim, M.F.A., Cranbrook Academy of Art
Cosier, Kim, Ph.D., Indiana University
Davidson, Miriam, Ph.D., Concordia University, Montreal
Dobkin, Joan, M.F.A., Cranbrook Academy of Art
Garrison, Lee Ann, M.F.A., University of Wisconsin-Milwaukee
Kaganovich, Yevgeniya, M.F.A., State University of New York-New Paltz
Moline, Lisa, M.F.A., University of Wisconsin-Madison
Rappaport, Mat, M.F.A., University of Notre Dame
Wearn, Richard, M.F.A., University of Sourthern California - Los Angeles

Master of Arts in Art

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- An undergraduate major in art including at least 40 studio credits and at least 45 academic credits outside the major.
- Submission of a portfolio of 20 slides or CD with 20 images of original work.
- Submission of a written personal statement of the proposed program of study.
- Three (3) letters of recommendation.

Applicants may be admitted with specific program-defined course deficiencies pro-

vided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

An applicant whose grade point average or quality of art work does not meet Graduate School and departmental standards may be considered for admission on probation, with continuance subject to review after completion of 6 credits.

Major Professor as Advisor
Immediately upon admission, the art student must contact the head of Graduate Studies and the head of the studio area in which the student will work for initial advising and advice in the selection of a major professor.

By the end of the fourth week of the student's second semester, the student must make arrangements for a professor in the Visual Art Department to serve as major professor and notify the Department of Visual Art Office of Graduate Studies that the professor is willing to serve in this capacity.

As soon as possible thereafter, the student, in consultation with the major professor, shall organize a Graduate Thesis Committee.This Committee consists of three or more members, at least one of whom must be from the student's area or areas of concentration. The Committee is composed of the major professor, who acts as chair, one additional member of the faculty of the Department of Visual Art, and a third member who may be chosen from the graduate faculty of the Department of Visual Art or other departments within the University. The Committee may be augmented by additional members representing the above pools or by an expert in the community.

A student who wishes to change the area of study must first apply and be accepted into the new area of concentration. The student should then contact the head of the newly selected area for advice in possibly selecting a new major professor.

If the student's major professor takes a leave of absence or leaves the University, the student should contact the head of the area for advice in selecting a new major professor. The student must notify the Department of Visual Art Office of Graduate Studies of the change immediately.

Transfer of Credits
An applicant who holds graduate art credits from another institution may, upon admission, be permitted to transfer up to 12 credits. Acceptance of these credits is not automatic. The student must apply to the Graduate School for evaluation of the credits before they can be accepted.

Credits and Courses
Minimum degree requirement is 30 graduate credits, 24 of which must be taken in art and 6 of which must be taken in Art History or courses in contemporary culture. The student, in consultation with the major professor, plans a program of studies to include 6 credits in graduate art seminars including Philosophy and Concepts (3 cr.); 18 credits in studio art; 6 credits in art history or courses in contemporary culture.

Graduate Review
Each year, the student must participate in at least one Graduate Review. The student who qualifies to bypass the Master of Arts degree in pursuit of the Master of Fine Arts degree must participate in at least one Graduate Review before the written and oral MFA qualifying examinations.

Thesis Exhibition
Upon recommendation of the Graduate Thesis Committee, the student presents a thesis exhibition or presentation of work centering on the student's area of concentration and executed during graduate studies.

Comprehensive Examination
The student must pass a final oral and written examination.

Time Limit
The Department of Visual Art requires that students complete all degree requirements within five years of initial enrollment.

Master of Fine Arts in Art

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Completion of 30 graduate course credits in art, including at least 18 in studio art, as required by the UWM Master of Arts in Art degree -- or the equivalent. The applicant need not necessarily hold the Master of Science or Master of Arts degree.
- An applicant not holding a Master of Science or Master of Arts degree must also pass a written and oral qualifying examination.
- Submission of a portfolio of 20 slides or CD with 20 images of original work.
- Submission of a written personal statement of the proposed program of study.
- Three (3) letters of recommendation.
- If the applicant is continuing toward the MFA after completing coursework for Master of Arts in Art at UWM, a letter recommending continuation toward the MFA from the thesis examining committee will be accepted in lieu of slides, a personal statement, and letters of recommendation.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

An applicant admitted with graduate course deficiencies must earn whatever portion is lacking of the 30 credits normally required for admission in addition to the 30 credits the Department of Visual

Art requires for the MFA degree.

Major Professor as Advisor
If the applicant is continuing toward the MFA after completing coursework for a UWM Master of Science in Art Education or Master of Arts in Art, the major professor and the Graduate Thesis Committee already selected will continue in these positions. If the applicant is newly admitted to the program, the head of the area of specialization should be contacted immediately for initial advising. By the end of the fourth week of the student's second semester in attendance, arrangements must be made for a professor in the Visual Art Department to serve as major professor and the Department of Visual Art Office of Graduate Studies should be notified of the professor's willingness to serve in this capacity.

As soon as possible thereafter, the newly admitted student, in consultation with the major professor, shall organize a Graduate Thesis Committee.This Committee consists of three or more members, at least one of whom must be from the student's area or areas of concentration. The Committee is composed of the major professor, who acts as chair, one additional member of the faculty of the Department of Visual Art, and a third member who may be chosen from the graduate faculty of the Department of Visual Art or other departments within the University. The Committee may be augmented by additional members representing the above pools or by an expert in the community.

A student who wishes to change the area of study must first apply and be accepted into the new area of specialization. The student should then contact the head of the newly selected area for advice in selecting a new major professor.

If the student's major professor takes a leave of absence or leaves the University, the student should contact the head of that area for advice in selecting a new major professor.

Credits and Courses
Minimum degree requirement is 30 graduate credits beyond the Master of Arts degree or the Master of Fine Arts Qualifying Exam. The student, in consultation with the major professor, plans a program of studies that includes 3 credits in a Graduate Art Seminar; 18 to 24 credits in studio art; 3 credits in Art History or courses in contemporary culture; 0 to 6 credits in related areas such as art history, anthropology, archaeology, or aesthetics. The student must earn at least 8 of the above credits through full-time attendance on campus in a single semester.

Graduate Review
MFA candidates must participate in at least one Graduate Review each academic year.

Thesis Exhibition
Upon recommendation of the major professor the student presents a thesis exhibition of work executed since admission to the program. The exhibition is held during the semester in which the student completes the coursework for the degree.

Comprehensive Examination
The student must pass a final oral and written examination.

Time Limit
The Department requires that the student complete all degree requirements within five years of initial enrollment in the MFA program.

Master of Science in Art Education

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program. Applicants must send completed application form and official transcripts to the Graduate School. The following materials are also needed to consider an applicant for admission to the program and these must be sent to the Visual Art Department Graduate Studies Office:

- Evidence (i.e., photocopy) of certification to teach art or admission into Teacher Certification Program in the School of Education.
- An example of writing skill via a paper presented at a professional meeting, a printed art curriculum guide or instructional strategies, a research report, a school report, a published article, or comparable evidence.
- Presentation of slide portfolio of applicant's original work (minimum 10, maximum 20 slides) and, if an experienced teacher, the work of one's students (minimum 10, maximum 20 slides). Explanatory or descriptive annotations must accompany slides.
- Three (3) letters of recommendation.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

Upon admittance to the program, the student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

An applicant whose grade point average or quality of art work does not meet Graduate School and departmental standards may be considered for admission on probation, with continuance subject to review after the completion of 6 credits.

Major Professor as Advisor
Immediately upon admission the graduate student must contact the head of the Art Education Area for initial advising and aid in selection of a major professor from the faculty of the Art Education Area.

Upon completion of 9 graduate credits, each student must make arrangements for a professor in the Art Education Area to serve as the major professor and must notify the Visual Art Department Office of Graduate Studies of that professor's willingness to serve in such a capacity.

Immediately thereafter, each student, in consultation with the major professor, must organize a thesis committee. This committee consists of the major professor and two additional faculty members from the Visual Art Department.

If the student's major professor takes leave of absence, receives a sabbatical, or leaves the University, the student should contact the Head of the Art Education Area for advice in selecting a new major professor.

Transfer of Credits
Upon admission, an applicant may be

permitted to transfer a maximum of 9 graduate credits earned at another institution. However, the student must apply to the Graduate School for an evaluation of such credits to determine if they are acceptable for transfer to the M.S. program.

Credits and Courses
The minimum requirement for the M.S. in Art Education degree is 30 graduate credits, 21 of which must be in the Visual Art Department. The student, in consultation with the major professor, is responsible for planning a 15 credit (minimum) program of study in art education with a specific focus in curriculum and instruction (which would include computer/video technology), exceptional education, early childhood education, multi-cultural instruction and/or museum education. Coursework should include a 9 credit (minimum) concentration of course work in studio art or, with major professor's written approval, in a related field such as art history, architecture, film, aesthetics, criticism, anthropology, sociology, or psychology.

Thesis
All M.S. in Art Ed. students must develop, present and defend a thesis to complete their degree. Three thesis options are available: a written thesis that emphasizes scholarly research; an applied study that includes the development and implementation of a significant teaching strategy or curricular model which is reported on in a written thesis; a thesis exhibition in which a student prepares a gallery presentation of a body of work created in studio courses. Thesis option must be selected by a student and approved by the major advisor before 15 graduate credits are earned.

Students who elect one of the written thesis options must have at least two members of the Art Education Area faculty on their thesis committee and one from their related field of study.

While studio courses are open to all graduate students who meet the prerequisites, those who elect the thesis exhibition option must be reviewed and accepted for thesis work by the faculty of the Area in which they wish to create a body of work to exhibit. Students must also complete a minimum of 15 credits of study in that studio area, participate in at least one Graduate Review before completing degree requirements, have at least two members of their studio area on their thesis committee, and meet the exhibition requirements of the Visual Art Department Graduate Studies Program.

Comprehensive Examination
All M.S. in Art Education students must pass a final oral examination in defense of the thesis. Students who elect the exhibition thesis option must pass both an oral and a written examination.

Time Limit
The Department of Visual Art requires that the student complete all degree requirements within five years of initial enrollment.

Courses

Art (ART)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

302 Visual Art Workshop: (Subtitled). 3 cr. U/G. Special topic course in Visual Art. AUDIT NOT ALLOWED. May be retaken with topic change to 6 cr max. Prereq: jr st, & admis to visual art prog or to DIVAS; or grad st

309 Issues in Contemporary Art: (Subtitled). 3 cr. U/G. Lecture course focused on critical issues/theory in contemporary art and culture. AUDIT NOT ALLOWED. Retakeable with topic change to 6 cr max. Prereq: jr st or cons instr

317 3D Imaging I. 3 cr. U/G. An introduction to 3D imaging techniques and applications. AUDIT NOT ALLOWED. Prereq: jr st, & admis to Visual Art Prog or to DIVAS Prog; or grad st; or cons inst

347 Reading Works of Art. 3 cr. U/G. An advanced course in the visual 'reading' of works of art from the artists' point of view. Course includes slide lecture, with discussion. Student presentation required. AUDIT NOT ALLOWED. Prereq: jr st or cons instr

365 Beginning Foundry Techniques. 3 cr. U/G. Basic techniques of working wax, styrofoam, and 'new' moldmaking technology. Experiences in vaporization casting, 'saved wax' method, ceramic shell and chemically bonded sand molding. AUDIT NOT ALLOWED. Prereq: jr st; Art 261(P)

366 Between Painting and Sculpture. 3 cr. U/G. A studio laboratory consisting of a wide spectrum of techniques and ideologies, concentrating on the exploration of joining painting and sculpture as a consummate form. AUDIT NOT ALLOWED. Prereq: jr st; Art 261(P)

367 Sculpture Colloquium I. 3 cr. U/G. This lecture/discussion/laboratory course examines the values, philosophies and directions of contemporary sculpture through directed research, slides, gallery visits, and critiques. AUDIT NOT ALLOWED. Prereq: jr st; Art 261(P) or grad st

372 Intermediate Jewelry and Metalsmithing II. 3 cr. U/G. Concentration on design and construction of jewelry, hollowware, or sculpture. AUDIT NOT ALLOWED. Prereq: jr st; Art 272(P), 371(P)

382 Intermediate Ceramics II. 3 cr. U/G. Further development in wheel throwing and/or handbuilding techniques with increased emphasis on the interrelationship of aesthetics and technique, introduction to gas kiln firing. AUDIT NOT ALLOWED. Prereq: jr st; Art 381(P)

392 Printmaking-Lithography II. 3 cr. U/G. Studio work based on stone and plate lithography with an emphasis on color printing, experimental processes and the development of personal graphic concept. AUDIT NOT ALLOWED. Prereq: jr st; Art 292(P)

394 Printmaking-Intaglio II. 3 cr. U/G. Continuation of Art 294 with emphasis on color printing, experimental processes, development of personal graphic concept. AUDIT NOT ALLOWED. Prereq: jr st; Art 294(P)

396 Printmaking-Screen Printing II. 3 cr. U/G. Continuation of Art 296 with emphasis on technical problems and specialized production methods with new materials. AUDIT NOT ALLOWED. Prereq: jr st; Art 296(P)

402 Visual Art Workshop: (Subtitled). 3 cr. U/G. Special topic course in Visual Art. AUDIT NOT ALLOWED. May be retaken with topic change to 6 cr max. Prereq: jr st & admis to visual art prog; or grad st; or cons instr

427 Advanced Design Workshop: (Subtitled). 1-3 cr. U/G. A short term, concept oriented workshop in graphic design. AUDIT NOT ALLOWED. May be retaken with topic change to 6 cr max. Prereq: jr st & cons instr

431 (effective 01/24/2005) Fibers II-Non-Loom. 3 cr. U/G. Non-loom construction. Concepts and innovative use of materials emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 233(P)

431 Fibers II-Non-Loom. 3 cr. U/G. Non-loom construction. Concepts and innovative use of materials emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 232(P) & 233(P)

432 (effective 01/24/2005) Fibers II-Weaving. 3 cr. U/G. Construction on the loom. Concepts and innovative use of materials emphasized. AUDIT NOT ALLOWED. . Prereq: jr st; Art 232(P)

432 Fibers II-Weaving. 3 cr. U/G. Construction on the loom. Concepts and innovative use of materials emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 232(P) & 233(P)

433 Fibers II-Surface Design. 3 cr. U/G. Continuation of resist processes and screenprinting on textiles with an emphasis on personal expression. AUDIT NOT ALLOWED. Prereq: jr st; Art 236(P), 237

434 Fibers III-Weaving. 3 cr. U/G. Individual research and execution of projects in various processes of weaving. Professional execution of work emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 432(P)

435 (effective 01/24/2005) Fibers III-Non-Loom. 3 cr. U/G. Individual research and execution of projects in various processes of non-loom fiber construction. Professional execution of work emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 431(P)

435 Fibers III-Non-Loom. 3 cr. U/G. Individual research and execution of projects in various processes of non-loom fiber construction. Professional execution of work emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 432(P) & 433(P)

436 Fibers III-Surface Design. 3 cr. U/G. Individual research and execution of projects in various processes of surface design. Professional execution of work emphasized. AUDIT NOT ALLOWED. Prereq: jr st; Art 433(P)

438 Fiber Workshop: (Subtitled). 1-3 cr. U/G. A short term, special topic course in fibers. May be retaken with change in topic to a 6 cr max. Prereq: jr st or writ cons instr. Additional prereqs may appear in the Timetable. AUDIT NOT ALLOWED. May be retaken with change in topic to 6 cr max. Prereq: jr st or writ cons instr

441 Advanced Drawing. 3 cr. U/G. Continuation and intensification of first year drawing. AUDIT NOT ALLOWED. Prereq: jr st; Art 242(P)

442 Advanced Life Drawing and Anatomy. 3 cr. U/G. Figure composition, methods of interpreting the human figure. AUDIT NOT ALLOWED. Prereq: jr st & Art 342(P)

447 Reading Works of Art. 3 cr. U/G. Continuation of Art 347. AUDIT NOT ALLOWED. Prereq: jr st or cons instr

449 Painting And Drawing Workshop: (Subtitled). 1-3 cr. U/G. A short term, special topic course in painting and drawing. Addtional prereqs may appear in the Timetable. AUDIT NOT ALLOWED. May be retaken with change in topic to 6 cr max. Prereq: jr st or writ cons instr

453 Color Photography. 3 cr. U/G. Introduction to the techniques, aesthetics, and history of color photography. Emphasis will be on making color prints from color negatives. AUDIT NOT ALLOWED. Prereq: jr st; grade of B- or better in Art 252(P)

455 (effective 01/24/2005) Digital Photography: Advanced. 3 cr. U/G. Self directed investigation, critiques and seminar discussions. AUDIT NOT ALLOWED. . Prereq: jr st; grade of B- or better in Art 454(P); or grad st

459 Photography Workshop: (Subtitled). 1-3 cr. U/G. A short term special topic course in photography. Additional prerequisites may be announced in Timetable each time course is offered. AUDIT NOT ALLOWED. May be retaken with change in topic to 6 cr max. Prereq: jr st, & admis to Visual Art Prog or to DIVAS Prog; or grad st; or cons instr

469 Sculpture Workshop. (Subtitled). 1-3 cr. U/G. A short term special topic workshop in sculpture. Specific topic and additional prerequisites may appear in the schedule of classes each semester. AUDIT NOT ALLOWED. May be retaken with topic change to a 6 cr max. Prereq: jr standing or writ cons instr

471 Jewelry Casting. 3 cr. U/G. An introduction to jewelry casting techniques. Design concepts in wax, model preparation, investing, and burn-out procedures. Demonstrations on casting systems including centrifugal, cuttlebone and gravity. AUDIT NOT ALLOWED. Prereq: jr st; Art 373(P)

472 Surface Enrichment. 3 cr. U/G. Problems in surface enrichment of jewelry and metalsmithing with special emphasis on the various enameling and coloration techniques. AUDIT NOT ALLOWED. Prereq: jr st; Art 371(P)

473 Advanced Jewelry and Metalsmithing I. 3 cr. U/G. Advanced design and fabrication in jewelry and metalsmithing. Development of a high level of competence is required. The student is encouraged to begin evolving a personal style. AUDIT NOT ALLOWED. Prereq: jr st; Art 371(P)

474 Advanced Jewelry and Metalsmithing II. 3 cr. U/G. Continued advanced design and fabrication in jewelry and metalsmithing. Demonstration of evolution of personal style. AUDIT NOT ALLOWED. Prereq: jr st; Art 473(P)

475 Advanced Jewelry and Metalsmithing III. 3 cr. U/G. Continued advanced design and fabrication in jewelry and metalsmithing. Evolution of personal style. AUDIT NOT ALLOWED. Prereq: jr st; Art 474(P)

479 (effective 01/24/2005) Jewelry and Metalsmithing Workshop: (Subtitled). 1-3 cr. U/G. Special topic course in jewelry and metalsmithing. Specific topic and additional prerequisites may appear in the schedule of classes each time the course is offered. AUDIT NOT ALLOWED. May be repeated with change of topic to max of 6 cr. Prereq: jr st or cons instr

479 Jewelry and Metalsmithing Workshop: (Subtitled). 1-3 cr. U/G. Special topic course in jewelry and metalsmithing. Specific topic and additional prerequisites may appear in the schedule of classes

each time the course is offered. AUDIT NOT ALLOWED. May be repeated with change of topic to max of 6 cr. Prereq: jr st or cons instr

481 Advanced Ceramics I. 3 cr. U/G. Continuation of Art 382 with in-depth experience in gas and electric kiln firing, and further development of glaze formulation. AUDIT NOT ALLOWED. Prereq: jr st; Art 382(P)

482 Advanced Ceramics II. 3 cr. U/G. Continuation of Art 481. AUDIT NOT ALLOWED. May be retaken to max of 6 cr. Prereq: Art 481(C)

489 Ceramics Workshop: (Subtitled). 1-3 cr. U/G. A short-term special topic course in ceramics. AUDIT NOT ALLOWED. May be retaken with change in topic to max of 6 cr. Prereq: jr st & writ cons instr

493 Digital Printmaking II. (Subtitled). 3 cr. U/G. An advanced studio course exploring digital media and traditional printmaking. Media/content focus to include array of relevant topics. AUDIT NOT ALLOWED. May be retaken to max of 6 cr. Prereq: jr st & Art 293(P); or grad st; or cons instr

495 Intermediate Printmaking. 3 cr. U/G. Intermediate level studio concentrating on: expanding range of print skills and that of mixed media; evolution of conceptual base of work. AUDIT NOT ALLOWED. Prereq: Art 296(P), 298(P), 392(P), 394(P), or cons instr

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Studio and special problems designed to provide relevant course work for a study abroad program in the visual arts. AUDIT NOT ALLOWED. May be retaken with change in topic to max of 12 cr. Prereq: jr st; acceptance in Study Abroad Prog

499 Printmaking Workshop: (Subtitled). 1-3 cr. U/G. A short term, special topic course in printmaking. Additional prerequisites may appear in Timetable each time course is offered. AUDIT NOT ALLOWED. May be retaken with change in topic to max of 6 cr. Prereq: jr st or writ cons instr

509 Visual Art Seminar: (Subtitled). 3 cr. U/G. Topics and critical issues in the modern and/or contemporary field of art. Student research and written/oral reports required. AUDIT NOT ALLOWED. Retakeable with change in topic to 6 cr max. Prereq: jr st or cons instr

524 Professional Practice. (Subtitled). 3-6 cr. U/G. Internship placing students in professional design workplaces. Written reports and portfolio development. Placements require reviews by instructor during prior semester. Graduate level requires additional research. AUDIT NOT ALLOWED. May be retaken with topic change to 6 cr max. Prereq: jr st; Art 329(P) or writ cons instr

529 Graphic Design III. 3 cr. U/G. Advanced design emphasizes a complete and comprehensive synthesis of graphic design through comprehensive studio projects developed for a graduate portfolio. AUDIT NOT ALLOWED. Prereq: jr st; grade of B- or better in Art 329(P); 6 cr (final 3 may be taken conc) Graphic Design Expanded Studies (grade of C or better)

539 Fibers-Independent Study. 1-6 cr. U/G. Individual program of supervised study for the advanced student in fiber. AUDIT NOT ALLOWED. May be repeated with change in topic to max of 6 cr. Prereq: jr st & writ cons instr

541 Advanced Drawing. 3 cr. U/G. Continuation of Art 441. AUDIT NOT ALLOWED. Prereq: jr st; Art 441

542 Advanced Life Drawing And Anatomy. 3 cr. U/G. Continuation of Art 442. AUDIT NOT ALLOWED. Prereq: jr st; Art 442(P)

543 Advanced Painting. 3 cr. U/G. Emphasis on painting concepts and development of personal insights in painting. AUDIT NOT ALLOWED. Prereq: jr st; Art 443(P)

544 Advanced Watercolor. 3 cr. U/G. Individual exploration of watercolor as an expressive medium. AUDIT NOT ALLOWED. Prereq: jr st; Art 444(P)

545 Painting and Drawing Critique. 3 cr. U/G. Paintings or drawings done independently are brought in weekly for critiquing by faculty members and invited guests. Emphasis is on concept image and authority of presentation. Any medium. AUDIT NOT ALLOWED. Prereq: sr st; Art 344(P) or 543(P); 442(P) or 541(P); & writ cons instr

546 Advanced Figure Painting. 3 cr. U/G. Complex set-ups addressing historical, contemporary uses of figure, non-western traditions and personal interest. AUDIT NOT ALLOWED. Prereq: jr st, Art 346(P) or equiv or writ cons instr

552 (effective 01/24/2005) Advanced Photography. 3 cr. U/G. Students define and pursue their own photographic project. Written requirements as well as a final portfolio required. AUDIT NOT ALLOWED. Prereq: jr st; grade of B- or better in Art 351(P) or Art 454(P); or grad st

552 Advanced Photography. 3 cr. U/G. Students define and pursue their own photographic project. Written requirements as well as a final portfolio required. AUDIT NOT ALLOWED. Prereq: jr st; grade of B- or better in Art 351(P)

553 Photography Portfolio. 3 cr. U/G. Continuation of Art 552 with emphasis on final presentation of project. AUDIT NOT ALLOWED. Prereq: jr st; grade of B- or better in Art 552(P)

561 Sculpture IV. 3 cr. U/G. Experimentation is stressed in the solution of student generated and conceptually directed sculpture problems for the advanced undergraduate and beginning graduate. AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Prereq: jr st; Art 464(P) or grad st; cons instr

562 Sculpture IV. 3 cr. U/G. Continuation of Art 561. AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Prereq: jr st; Art 561(P) or grad st; cons instr

567 Sculpture Colloquium II. 3 cr. U/G. Continuation of Art 367. AUDIT NOT ALLOWED. Prereq: jr st; Art 367 or grad st

569 Issues In Contemporary Sculpture: (Subtitled). 1-3 cr. U/G. This course provides the format for the development and presentation of new material on an experimental, limited term basis by the sculpture faculty. AUDIT NOT ALLOWED. May be repeated with change in topic to max of 9 cr. Prereq: jr st; Art 261(p)

583 Advanced Ceramics III. 3 cr. U/G. Advanced problem solving with emphasis on developing a high-level working awareness of aesthetic and technical properties of ceramics as an expressive medium. AUDIT NOT ALLOWED. Prereq: jr st; Art 482(P)

584 Advanced Ceramics IV. 3 cr. U/G. Continuation of Art 583. AUDIT NOT ALLOWED. May be retaken to max of 6 cr. Prereq: jr st; Art 583(C)

585 Advanced Ceramics V. 3 cr. U/G. Continuation of Art 584. AUDIT NOT ALLOWED. May be retaken to max of 6 cr. Prereq: jr st; Art 584(C)

595 Printmaking Colloquium. 3 cr. U/G. Studio/discussion course examining the issues and directions of contemporary printmaking through research, critiques and gallery visits. AUDIT NOT ALLOWED. Prereq: Art 495(P) or cons instr

597 Advanced Printmaking I. 3 cr. U/G. Individual research into building skills in chosen media; increased emphasis on the interrelationship of aesthetic/technique. AUDIT NOT ALLOWED. Prereq: Art 495(P)

599 Advanced Printmaking II. 3 cr. U/G. Continued individual research into defining and pursuing a personalized style with an emphasis on professional execution of work. AUDIT NOT ALLOWED. Prereq: Art 597(P)

603 Advanced Studio Practice. 1-3 cr. U/G. A special course open only to seniors and graduate students with written cons instr. AUDIT NOT ALLOWED. May be retaken to max of 3 cr. Prereq: sr st; writ cons instr

609 Independent Reading and Research. 1-3 cr. U/G. - AUDIT NOT ALLOWED. May be retaken with change in topic to max of 9 cr. Prereq: sr st & writ cons instr

627 Design Seminar: (Subtitled). 3 cr. U/G. Role and responsibility of professional designer investigated. Topics may include contemporary trends and issues, design education, ethics, career opportunities. AUDIT NOT ALLOWED. Prereq: jr st & pre-semester writ cons instr

629 Graduate Graphic Design I. 3 cr. U/G. Individual research in graphic design. AUDIT NOT ALLOWED. Prereq: Art 529(P) or cons instr

643 Advanced Painting. 3 cr. U/G. Continuation of Art 543. AUDIT NOT ALLOWED. Prereq: jr st; Art 543(P)

644 Advanced Watercolor. 3 cr. U/G. Continuation of Art 544. AUDIT NOT ALLOWED. Prereq: jr st; Art 544(P)

645 Painting and Drawing Critique. 3 cr. U/G. An advanced critique format course to investigate painting and drawing mediums. Students will develop and discuss conceptual, technical, and collective dialogue strategies. AUDIT NOT ALLOWED. Prereq: sr st or writ cons instr

729 Graduate Graphic Design II. 3 cr. G. Individual research in graphic design. AUDIT NOT ALLOWED. Prereq: Art 629(P) or cons instr

731 Fibers-Graduate. 3 cr. G. Individual research and execution of projects in chosen processes of fiber construction. Thesis preparation. AUDIT NOT ALLOWED. Prereq: grad st & 9 cr in fibers

732 Fibers-Graduate. 3 cr. G. Individual research and execution of projects in chosen processes of fiber construction. AUDIT NOT ALLOWED. Prereq: grad st & Art 731(P)

753 Graduate Photography I. 3 cr. G. Self-directed research in photography with involvement in group critiques. AUDIT NOT ALLOWED. Prereq: grad st

754 Graduate Photography Processes I. 3 cr. G. Advanced research and exploration into various photography or photography-related materials, processes and techniques. AUDIT NOT ALLOWED. Prereq: grad st

759 Photography Thesis-M.A. 3 cr. G. Emphasis is placed on preparation for final presentation of the work for the required m.a. thesis exhibition. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

761 Graduate Sculpture. 3 cr. G. Pursuance of the technical and conceptual synthesis and refinement related to the graduate's evolving aesthetic through directed research, discussions and critiques. AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Prereq: grad st; Art 562(P); cons instr

762 Graduate Sculpture. 3 cr. G. Continuation of art 761. AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Prereq: grad st, Art 761(P) & cons instr

781 Graduate Ceramics I. 3 cr. G. Concentrated focus on the development of a personal aesthetic through the ceramic medium. This course may be conducted as a class or individual critique. AUDIT NOT ALLOWED. Prereq: grad st & cons instr

782 Graduate Ceramics II. 3 cr. G. Continuation of art 781. AUDIT NOT ALLOWED. Prereq: Art 781(P)

792 Graduate Lithography. 3 cr. G. Individual research for the graduate printmaker in lithography to formulate personal concepts through either stone or plate lithography. AUDIT NOT ALLOWED. Prereq: grad st; Art 592(P)

829 Graduate Graphic Design III. 3 cr. G. Individual research in graphic design. Preparation for thesis exhibition. AUDIT NOT ALLOWED. Prereq: Art 729(P)

843 Graduate Painting. 3 cr. G. Individual research in painting. Studio research and criticism. AUDIT NOT ALLOWED. May be repeated with change in topic to max of 9 cr. Prereq: grad st

844 Graduate Painting II. 3 cr. G. Continuation of art 843. AUDIT NOT ALLOWED. Retakeable to max of 9 cr. Prereq: grad st; 9 cr in Art 843

851 Graduate Photography II. 3 cr. G. Continuation of Art 753. AUDIT NOT ALLOWED. Prereq: grad st; Art 753(P)

852 Graduate Photography Processes II. 3 cr. G. Continuation of Art 754. AUDIT NOT ALLOWED. Prereq: Art 754(P)

859 Photography Thesis-M.F.A. 3 cr. G. Emphasis is placed on preparation for final presentation of the work for the required M.F.A. thesis exhibition. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee for 1 cr assessed. Prereq: grad st

889 Advanced Research-Ceramics. 1-4 cr. G. Advanced independent research for graduate students. AUDIT NOT ALLOWED. Prereq: grad st; Art 689(P), 781(P), 782(P)

892 Graduate Lithographer/Printer. 3 cr. G. Research into the collaborative process as a lithographer/printer. AUDIT

NOT ALLOWED. Prereq: grad st; Art 592(P); cons instr

900 Graduate Studio. 3 cr. G. Ongoing critique of individual studio research in students' chosen medium(s). Emphasis on developing and maintaining interdisciplinary dialogue. Studio research, individual, and group critiques required. AUDIT NOT ALLOWED. May be repeated to max of 9 cr. Prereq: grad st

901 Seminar in Art-Philosophy and Concepts. 3 cr. G. Presentations and discussions centering on contemporary concerns in art. Student research and oral reports. AUDIT NOT ALLOWED. Prereq: grad st

903 Seminar in Art-Reading and Research. 3 cr. G. Experience in the systematic development and production of written and visual documentation or research. AUDIT NOT ALLOWED. Prereq: grad st

904 Seminar In Art-Unique Topics In Art. (Subtitled). 3 cr. G. Examination of unique topics and issues of the modern and/or contemporary field of art. Student research and written/oral reports required. AUDIT NOT ALLOWED. May be retaken only as elective beyond 9 cr seminar for M.F.A. or 6 cr required for M.A. prereq: grad st

905 Seminar in Art - Critique Colloquium. 3 cr. G. Studio critique/discussion to develop analytical perceptual skills in the understanding/comprehension of works of art. Student research, presentation and written/oral reports required. AUDIT NOT ALLOWED. Prereq: grad st

908 Advanced Research-General. 1-4 cr. G. Independent work and research in areas not covered by specific courses. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

909 Independent Reading and Research. 1-4 cr. G. Independent reading and research relative to art problems. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

929 Graduate Graphic Design IV. 3 cr. G. Individual research in graphic design. Final preparation for thesis exhibition. AUDIT NOT ALLOWED. Prereq: Art 829(P)

930 Advanced Research-Fibers. 1-4 cr. G. Independent work and research in fibers. AUDIT NOT ALLOWED. Prereq: grad st & cons instr

943 Advanced Research-Painting. 1-4 cr. G. Independent work and research in painting. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

944 Advanced Research-Watercolor. 1-4 cr. G. Independent work and research in watercolor. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

945 Advanced Research-Drawing. 1-4 cr. G. Independent work and research in drawing. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

952 Advanced Research-Photography. 3 cr. G. Independent work and research in photography. AUDIT NOT ALLOWED. May be repeated with change in topic to max of 6 cr. Prereq: grad st; cons instr

961 Advanced Research - Sculpture. 1-4 cr. G. Independent work and research in sculpture. AUDIT NOT ALLOWED. Prereq: grad st & cons instr

962 Graduate Thesis Sculpture. 1-4 cr. G. In-studio sculpture development specifically directed toward the student's thesis exhibition. AUDIT NOT ALLOWED. Prereq: grad st, Art 762(P) & cons major advisor

963 Graduate Thesis Sculpture. 1-4 cr. G. Preparation for M.F.A. thesis exhibition. AUDIT NOT ALLOWED. Prereq: grad st; Art 962 & cons major professor

971 Graduate Jewelry and Metalsmithing. 3 cr. G. A period of individual research research for the advanced jewelry/metalsmith to develop his/her personal style. Studio research and criticism. AUDIT NOT ALLOWED. Prereq: grad st

972 Graduate Jewelry and Metalsmithing. 3 cr. G. Continuation of art 971. AUDIT NOT ALLOWED. Prereq: grad st; Art 971

973 Advanced Research-Jewelry and Metalsmithing. 1-6 cr. G. Independent work and research in metalsmithing or jewelry. AUDIT NOT ALLOWED. Prereq: grad st; writ cons instr

994 Advanced Research-Printmaking. 1-4 cr. G. Independent work and research in printmaking. AUDIT NOT ALLOWED. Prereq: grad st & cons instr

Art Education (ART ED)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

489 Art Education Workshop. (Subtitled). 1-3 cr. U/G. A short-term, concept-oriented workshop in the visual and tactile arts with special focus on current issues of particular interest to the professional art educator. AUDIT NOT ALLOWED. May be repeated with change in content to max of 6 cr. Prereq: jr st & cons instr

550 Computer Applications for Art Education. 3 cr. U/G. Use of computer and other electronic media technology in developing and presenting visual-based instructional material, managing records, and using database and visual retrieval systems for a wide range of subject matter. AUDIT NOT ALLOWED. Prereq: Art Ed 225(P), admis into Art Ed prog; cons instr

700 Historical Foundations of Art Education. 3 cr. G. History of art education practices. Study of major philosophical, theoretical, and medthodological foundations of art education. AUDIT NOT ALLOWED. Prereq: grad st

725 Modern Practices in Art Education. 3 cr. G. Study of philosophical, theoretical, and methodological grounds for practice in art education from 1900 to 1960. AUDIT NOT ALLOWED. Prereq: grad st; Art Ed 700(P) or cons instr

750 Current Issues in Art Education. 3 cr. G. Study of current influences and legislated mandates affecting art education that emanate from government agencies, political initiatives, advocacy groups, foundations, and education theories. AUDIT NOT ALLOWED. Prereq: grad st; art ed 725(P) or cons instr

760 Art Education Colloquium. 1 cr. G. Directed readings and discussions on topics presented by visiting professors, researchers, artists, community leaders, educational leaders, etc. Five sessions per semester. AUDIT NOT ALLOWED.

May be repeated to max of 4 cr. Prereq: grad st

800 Art and Language Development. 3 cr. G. Relationships between visual and verbal expression will be studied to understand needs of visual learners. Theory and methodology will emphasize integrative approaches to this subject. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

801 Seminar in Urban Education and the Visual Arts. 3 cr. G. Seminar on issues related to urban schools. Emphasis on the art in urban education and consequent demands made upon curriculum. AUDIT NOT ALLOWED. Prereq: grad st; Art Ed 750 or cons instr

810 Curricular Designs for Art Instruction. 3 cr. G. Curricular rationales and models will be studied and tested. Emphasis on use of art history and criticism with studio-based curricula. AUDIT NOT ALLOWED. Prereq: grad st; Art Ed 775 or cons instr

820 Visual Learning and Multi-Cultural Curricula. 3 cr. G. Multi-cultural curricular rationales and practices relating to art education will be identified, studied and tested. Influences relevant to art programs. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

830 Teaching Art With Works of Art. 3 cr. G. Study of ways historic and contemporary masterworks can enhance art curricula. Use of art museums will be emphasized and visual resources examined. AUDIT NOT ALLOWED. Prereq: grad st; cons instr

840 Advanced Computer Applications for Art Education. 3 cr. G. Study and practice in the use of computer and video technology to develop art curriculum materials. Image capturing, video-disc usage, etc, emphasized. AUDIT NOT ALLOWED. Prereq: grad st and Art Ed 550(P); or cons instr

850 Supervision and Administration of Art Programs. 3 cr. G. Study of supervisory and administrative practices related to art programs. Staff development techniques, management procedures, evaluation processes, community relations, and grant writing emphasized. AUDIT NOT ALLOWED. Prereq: grad st; Art Ed 750(P) or cons instr

860 Teaching Art in Higher Education. 3 cr. G. Study of curricular models, administrative structures and policies, and teaching methods used by arts administrators, educators, and master artists in higher education. AUDIT NOT ALLOWED. Prereq: grad st; Art Ed 725(P) or cons instr

900 Advanced Independent Problems in Art Education. 3 cr. G. Applied research in art education with emphasis on student generated problems in studio practices, Art History, criticism, Anthropology, Sociology, and aesthetics, or Psychology. AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Prereq: grad st; cons grad advisor & instr

910 Seminar in Art Education: (Subtitled). 3 cr. G. Each seminar will focus on a special topic relevant to art education. Topic related lectures, readings, and discussions will conclude in a required research report. AUDIT NOT ALLOWED. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

920 Research Methods in Art Education. 3 cr. G. The study of research models and methods used in the field. Student will develop a research proprosal and design a research strategy. Participation in a field study required. AUDIT NOT ALLOWED. Prereq: grad st; cons instr. Completion of 24 grad cr in degree program

990 Master's Thesis. 1-3 cr. G. Thesis research and advisement for m.s. in art education students who have completed course requirements for the degree. AUDIT NOT ALLOWED. May be repeated to max of 9 cr. Prereq: grad st; completion of 30 grad cr; cons grad advisor

998 Doctoral Dissertation. 1-3 cr. G. Doctoral dissertation research and advisement for candidates for Ph.D. in urban education with a specialty in art education. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Prereq: doctoral candidacy; approval of doctoral advisor

999 Independent Reading and Research. 1-4 cr. G. - AUDIT NOT ALLOWED. Prereq: grad st; cons instr

ART HISTORY

College of Letters and Science

Degree Conferred: MA in Art History
Phone: (414) 229-4330
FAX: (414) 229-2935
E-mail: cmaranci@uwm.edu
Web site: www.uwm.edu/Dept/ArtHistory

The Department of Art History offers a graduate program of studies in the history, theory, criticism and connoisseurship of art. Coursework is offered in Western art (European and American) and Non-Western art (African, Asian, and Pre-Columbian) from antiquity to the present. Independent investigation and study are afforded in architecture, painting and sculpture in each of the major periods. The program is designed to permit the student to develop familiarity with a broad range of stylistic periods and with research techniques employed in their study.

The program prepares the student for advanced work leading to the PhD, and through the Certificate in Art Museum Studies, for careers in curatorial, educational and administrative positions in museums and art galleries.

Graduate Faculty

PROFESSORS

Bendiner, Kenneth P., Ph.D., Columbia University
Hayes, Jeffrey R., Ph.D., University of Maryland
Stone, Andrea, Ph.D., University of Texas, Chair

ASSOCIATE PROFESSOR

Maranci, Christina, Ph.D., Princeton University

ASSISTANT PROFESSORS

Counts, Derek, Ph.D., Brown University
Mariño, Melanie, Ph.D., Cornell University
Tiffany, Tanya, Ph.D., Johns Hopkins University
Wang, Ying, Ph.D., University of Pittsburgh

Master of Arts in Art History

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- A minimum of 15 credits in Art History.
- Submission of scores on the Graduate Record Examination.
- Two letters of recommendation from persons familiar with applicant's academic or professional activities and potential.
- Strongly recommended, though not required: background in languages, history or classics. Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Graduate Advisor.

Option A: Thesis Option

Option A is designed primarily for the student who wishes to pursue a specialized problem in greater depth than would be possible in normal course structure.

Credits and Courses
Minimum degree requirement is 27 graduate credits in Art History, of which a minimum of 15 credits must be at the 700 level or above. Of these 15 credits, at least 6 credits must be in 700 level colloquia (not including 703), at least 3 credits must be in a 900 level seminar (not including 990 or 999), and 6 credits should be taken in thesis research (990).

Alternatively, 3 credits in additional seminar or colloquium work may be substituted for 3 of the 6 credits of thesis research. In addition, students may take a maximum of 6 credits of independent research (890, 891 and/or 999); however, these credits may not be taken in the first 6 credits of graduate work in the Department, and not until all deficiencies (if any) have been satisfied. Furthermore, they may not be counted toward the 15 credits at the 700 level or above. They will, however, count toward the overall number of credits needed to graduate. All students must take at least one 700 level colloquium (not including 703) in their first semester in the program.

Of the total 27 credits, each student is required to take 3 credits in at least four of the following five areas: Ancient, Medieval, Renaissance-Baroque, Modern (1750 to the Present including Film), and Non-Western. At least 6 of these credits must be taken in courses numbered 700 or above. The following courses may not be used to satisfy the distribution requirement although they will count toward the overall number of credits needed to graduate: 302, 303, 351, 353, 355, 459.

Upon petition to the graduate advisor, a student may be permitted to take up to 6 credits in appropriate areas outside Art History (e.g., anthropology, literature, history, music history, philosophy, film).

Language Requirement
Students must demonstrate a reading knowledge of one art historical language, e.g. French, German, Italian, Spanish or other language as appropriate. Students must take the departmental reading exam in the language of their choice at least once by the time they have completed 9 credits. If they do not pass the exam on the first attempt, they will be expected to enroll in an appropriate language course. Students may not enroll in thesis research (990) unless they have passed the language examination.

Thesis or Exhibition
The student must either write a thesis or organize an exhibition accompanied by a scholarly catalog on a subject selected in consultation with the advisor. This study or exhibition must demonstrate the student's ability to organize material and fa-

miliarity with research methods and art historical literature pertinent to the student's topic and area of interest. The exhibition is considered the equivalent of a formal thesis and the accompanying written work must be submitted to the Graduate School in appropriate format.

Comprehensive Examination
The student must pass a final comprehensive examination, which will take the form of an oral defense of the thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment. It is expected that a full-time student will normally complete all of the requirements for the degree within two years.

Option B: Non-Thesis Option

Option B is designed primarily for students who prefer to broaden their general backgrounds in Art History by working on a variety of shorter research problems within the normal course structure.

Credits and Courses
Minimum degree requirement is 27 graduate credits in Art History of which a minimum of 15 credits must be at the 700 level or above. Of these 15 credits, at least 6 credits must be in 700 level colloquia (not including 703), at least 3 credits must be in a 900 level seminar (not including 990 or 999), and 6 credits must be in additional colloquia and/or seminar work. In addition, students may take a maximum of 6 credits of independent research (890, 891 and/or 999); however, these credits may not be taken in the first 6 credits of graduate work in the Department, and not until all deficiencies (if any) have been satisfied. Furthermore, they may not be counted toward the first 15 credits at the 700 level or above. They will, however, count toward the overall number of credits needed to graduate. All students must take at least one 700 level colloquium (not including 703) in their first semester in the program.

Of the total 27 credits, each student is required to take 3 credits in at least four of the following five areas: Ancient, Medieval, Renaissance-Baroque, Modern (1750 to the Present including Film), and Non-Western. At least 6 of these credits must be taken in courses numbered 700 or above. The following courses may not be used to satisfy the distribution requirement although they will count toward the overall number of credits needed to graduate: 302, 303, 351, 353, 355, 459.

Upon petition to the graduate advisor, a student may be permitted to take up to 6 credits in appropriate areas outside Art History (e.g., anthropology, literature, history, music history, philosophy, film).

Language Requirement
Students must demonstrate a reading knowledge of one art historical language, e.g. French, German, Italian, Spanish or other language as appropriate. Students must take the departmental reading exam in the language of their choice at least once by the time they have completed 9 credits. If they do not pass the exam on the first attempt they will be expected to enroll in an appropriate language course. Students may not register for Art History courses beyond 21 credits unless they have passed the language examination.

Thesis
No formal thesis is required.

Comprehensive Examination
The student must pass a final two-part comprehensive examination consisting of a 2-hour written slide examination covering three of the distribution areas in which the student has taken courses, and a take-home essay on one area of concentration. The student must pass both parts in order to pass the examination. The examination may be repeated once.

Time Limit
The student must complete all degree requirements within five years of initial enrollment. It is expected that a full-time student will normally complete all of the requirements for the degree within two years.

Certificate in Art Museum Studies

The Certificate in Art Museum Studies is designed as an addition to the M.A. in Art History for students interested in pursuing careers in the museum world.

Students wishing to earn the Certificate must complete a minimum of 33 credits in Art History including 27 credits as outlined above under Option A and at least 6 additional credits as follows: 3 credits in Art History 703, Introduction to Art Museum Studies; a minimum of 3 or a maximum of 6 credits in Art History 891, Art Museum Internship. No more than 3 credits of 891 may be taken in a single semester.

In completing the requirements for Option A, students must organize an exhibition accompanied by a scholarly catalogue to fulfill the thesis requirements. All of the other requirements for Option A must also be fulfilled.

Courses

Art History (ARTHIST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

303 Comic Art: Bosch to the Present. 3 cr. U/G. An investigation of the comic tradition in painting caricature, cartoons, and comic strips in relation to the historical and intellectual trends of the age. Prereq: jr st

305 Film Analysis I: Method and Theory. 3 cr. U/G. Film language, critical methods, and theory applied to selected works of film art. Cross-cultural analysis of styles and themes. Study of major film artists. Prereq: jr st

306 Film Analysis II: Method and Theory. 3 cr. U/G. Film language, critical methods, and theory applied to selected works of major national film artists. Cross-cultural analysis of styles and themes. Prereq: jr st

307 Film Directors: (Subtitled). 3 cr. U/G. Comprehensive analysis of the technique, style, and themes of specific major film artists. Biographical, cultural, artistic influences on artists' work. Retakable w/chg in topic to 9 cr max. Prereq: jr st; ArtHist 205(R) or 305(R)

308 Film Styles: (Subtitled). 3 cr. U/G. A stylistic analysis of film of major filmmakers made within the structures of particular genres, such as gangsters, musicals, westerns, horror, science fiction and studios. Retakable w/chg in topic to 9 cr max. Prereq: jr st

312 Minoan and Mycenaean Art and Archaeology. 3 cr. U/G. Architecture, sculpture, and painting in the Aegean during the Bronze Age, with emphasis on recent archaeological discoveries. Satisfies L&S International req. Prereq: jr st

313 Greek Art and Archaeology. 3 cr. U/G. Major developments in Greek art from Archaic times through the Hellenistic period. Emphasis on architecture, sculpture, and painting of the Archaic and Classical periods. Satisfies L&S International req. Prereq: jr st

315 Art and Archaeology of Ancient Egypt. 3 cr. U/G. Architecture, arts, and crafts created for Egyptian kings, nobles, and commoners from the Predynastic period (5500 B.C.) to Cleopatra (31 B.C.). Satisfies L&S International req. Chicago field trip; fee assessed. Prereq: jr st; ArtHist 101(R)

316 Roman Art and Archaeology. 3 cr. U/G. Major developments in the evolution of Roman architecture, sculpture and painting from Republican through late Imperial times. Satisfies L&S International req. Prereq: jr st

320 Medieval Art and Architecture. 3 cr. U/G. Major monuments of medieval art and architecture from the fourth to the fourteenth century in France, Spain, the British Isles, Italy and the Mediterranean. Satisfies L&S International req. Prereq: jr st

322 Origins of Medieval Art. 3 cr. U/G. Fundamental changes from Classical to Medieval art in the late Roman, early Christian, early Byzantine, and early Medieval periods, c.250-800 A.D. Satisfies L&S International req. Prereq: jr st

324 Art and Architecture of Byzantium. 3 cr. U/G. Art and architecture of Constantinople and vicinity from the fourth to the fifteenth century. Satisfies L&S International req. Prereq: jr st or cons instr

325 Early Medieval Art in the West. 3 cr. U/G. Architecture, sculpture, metalwork and manuscript illumination from c.500-c.1050 A.D. in Ireland, Britain, France, Spain, Germany, Scandinavia and Northern Italy. Satisfies L&S International req. Prereq: jr st; ArtHist 101(R)

326 Heretics and Iconoclasts: The Art and Architecture of the Christian East. 3 cr. U/G. The artistic and visual traditions of Christian cultures to the east of the Mediterranean, including Syria, Cappadocia, Armenia, and Georgia, from late antiquity to c. 1500. Satisfies L&S International req. Prereq: jr st

327 The Arts of Islam. 3 cr. U/G. Arts of the Islamic world from the Umayyad dynasty to the Ottoman Empire. Architecture, manuscripts, and portable objects. Satisfies L&S International req. Prereq: jr st or cons instr

329 Art and Architecture of the Late Middle Ages. 3 cr. U/G. Church architecture, manuscript illumination, and architectural and figural sculpture from the Gothic era to the rise of the Renaissance. Satisfies L&S International req. Prereq: jr st or cons instr

333 High Renaissance Art in Italy. 3 cr. U/G. The formation of the great style discussed in terms of the attainments of representative artists such as Leonardo da Vinci, Michelangelo, Raphael, and Titian. Satisfies L&S International req. Prereq: jr st

340 Baroque Art in Italy, France, and Spain. 3 cr. U/G. Seventeenth century painting and sculpture examined on the basis of such artists as Caravaggio, Bernini, Velazquez, El Greco, Poussin, and Claude Lorrain. Satisfies L&S International req. Prereq: jr st

341 Seventeenth-Century Art in Holland and Flanders. 3 cr. U/G. The development of art in Flanders and Holland during the seventeenth century, examining the works of artists Rubens, Van Dyck, Rembrandt, Hals, and Vermeer. Satisfies L&S International req. Prereq: jr st

351 English Art: 1550-1850. 3 cr. U/G. Architecture, painting, and sculpture in England from Elizabeth I to the Great Exhibition of 1851; emphasis on Wren, Adam, Reynolds, Gainsborough, Constable, and Turner. Satisfies L&S International req. Prereq: jr st

353 American Art: Colonial Period - 1870. 3 cr. U/G. Architecture, painting, sculpture, and decorative arts of colonial America through the civil war period with emphasis on their aesthetic and social contexts. Prereq: jr st

354 American Art: 1870 - Present. 3 cr. U/G. Painting, sculpture, and the decorative arts from 1870 to the present with emphasis on their aesthetic and social contexts. Prereq: jr st

355 American Folk Art. 3 cr. U/G. Survey of American folk art from colonization to the present. Emphasis on major styles and themes, regional developments, and relationship to the fine arts. Prereq: jr st

357 Nineteenth-Century Painting in Europe. 3 cr. U/G. History of European painting from 1800 to 1900. Satisfies L&S International req. Prereq: jr st

358 Modern Painting I: 1850-1900. 3 cr. U/G. Realist, Impressionist, and Post-Impressionist movements in historical and intellectual contexts; emphasis on Courbet, Manet, Renoir, Degas, Pissaro, Seurat, Cezanne, Gauguin, Ensor, Munch, Van Gogh. Satisfies L&S International req. Prereq: jr st

359 Modern Architecture I: The European Foundations of Modern Architecture. 3 cr. U/G. An aesthetic, stylistic, theoretical, technical and functional study of European architecture from the end of the Baroque style to the beginning of Modernism. Satisfies L&S International req. Prereq: jr st; ArtHist 101(R) & 102(R)

360 Modern Architecture II: The Rise of Modern Architecture. 3 cr. U/G. Emphasizing the work of the major modern architect, the course traces the evolution of architecture from the beginnings of Modernism to the present time. Prereq: jr st

361 Modern Architecture III: Contemporary Architecture. 3 cr. U/G. The intellectual, visual, and social evolution of architecture since the early 1960's. Prereq: jr st; ArtHist 360(P) or cons instr

363 Modern Sculpture: 1880-1945. 3 cr. U/G. Development of the Expressionist, Cubist, Futurist, Dada, Surrealist, and Constructivist movements and work of independent sculptors against the twentieth century historical and intellectual background. Prereq: jr st

364 Modern Painting II: 1900 to the Present. 3 cr. U/G. Development of the Fauve, Cubist, Expressionist, Dada, Surrealist, and Abstract movements against the historical and intellectual background of the twentieth century. Emphasis on leading individual twentieth century artists. Prereq: jr st

365 History of Photography. 3 cr. U/G. A survey of photography from its inception in 1826 to the present. Topics include stylistic and technological evolution, cultural impact, and aesthetic considerations of photography. Prereq: jr st; ArtHist 102(R) or 357(R)

366 German Painting, 1800-1933. 3 cr. U/G. Major German painters from Runge to Beckmann. Romantic art theory, landscape, Expressionism, and 'Neve Sachlichkeit.' Satisfies L&S International req. Prereq: jr st

368 History of Modern Design. 3 cr. U/G. An investigation of the craft or decorative arts-specially furniture, ceramics, glass, metalwork, and textiles-from the Great Exhibition of 1851 to the present. Prereq: jr st

371 African Art. 3 cr. U/G. Art of the indigenous peoples of different sections of Africa, with consideration of both aesthetic qualities and the social context of the art. Satisfies L&S International req. Prereq: jr st

372 Pre-Columbian Art of South America. 3 cr. U/G. Native arts of South America before European contact; emphasis on artistic developments in the Andean region. Satisfies L&S International req. Prereq: jr st; ArtHist 104(R)

373 Pre-Columbian Art of Mesoamerica. 3 cr. U/G. Arts of ancient Mexico and Central America; emphasis on the Olmec, the Maya, and the Aztecs. Satisfies L&S International req. Prereq: jr st

382 Chinese Art and Architecture. 3 cr. U/G. Chinese bronzes, jades, painting, sculpture, and architecture from the Neolithic (5000 B.C.) to the modern period, including Buddhist, Daoist, Confucianist, and Communist art. Satisfies L&S International req. Prereq: jr st

384 Art and Archaeology of the Chinese Bronze Age. 3 cr. U/G. In-depth study of ritual bronzes and other crafts created for nobles and commoners of the Bronze Age, with emphasis on recent archaeological discoveries. Satisfies L&S International req. Prereq: jr st

412 Cities and Sanctuaries of Ancient Greece. 3 cr. U/G. Development of Greek urban and religious architecture from Archaic through Hellenistic times. The growth of such centers as Athens, Delphi, Olympia, Paestum, Priene, and Pergamon. Satisfies L&S International req. Prereq: jr st

413 Greek Sculpture. 3 cr. U/G. Development of sculpture from the Geometric Period through the Hellenistic age. All forms of sculpture considered, not just freestanding works. Satisfies L&S International req. Prereq: jr st

414 Greek Vase Painting. 3 cr. U/G. Major styles of Greek vase painting with emphasis on Attic black figure and red figure painting and painters of the fifth and sixth centuries B.C. Satisfies L&S International req. Prereq: jr st

416 Roman Architecture. 3 cr. U/G. Formation and development of Roman architecture from its Greek and Italic elements through the decline of the civilization in the fourth century A.D. Satisfies L&S International req. Prereq: jr st

424 The Dome: Form, Function, and Meaning. 3 cr. U/G. Formal, technical, and historical meanings of the dome from antiquity to the Middle Ages in monuments such as the Pantheon, Hagia Sophia, and Blue Mosque. Satisfies L&S International req. Prereq: jr st or cons instr

425 Romanesque Architecture. 3 cr. U/G. Development of church architecture of the eleventh and twelfth centuries in France, England, and Germany. Satisfies L&S International req. Prereq: jr st

426 French Gothic Architecture C.1130-C.1300. 3 cr. U/G. Gothic architecture from its origins in the Ile-de-France through the High Gothic cathedrals to the European-wide diffusion of the Rayonnant style. Satisfies L&S International req. Prereq: jr st; ArtHist 101(R)

429 English Medieval Architecture, 1066-1530. 3 cr. U/G. Cathedrals, monasteries, parish churches, castles, and manor houses from the Norman Conquest to the Reformation. Architectural style and its relation to historical factors. Satisfies L&S International req. Prereq: jr st; ArtHist 101(R)

431 Renaissance Architecture in Italy. 3 cr. U/G. Florentine and other Italian architecture in the fifteenth and sixteenth centuries; such artists as Brunelleschi, Alberti, Bramante, Leonardo da Vinci, Michelangelo, and Palladio. Satisfies L&S International req. Prereq: jr st

435 Art and Architecture Along the Western Silk Road. 3 cr. U/G. Artistic exchange between Europe, Byzantium, Asia Minor, the Caucasus, and the Islamic world during the Middle Ages through the textile trade. Satisfies L&S International req. Prereq: jr st or cons instr

444 The Arts of France in the Seventeenth Century. 3 cr. U/G. Major figures and movements against the historical and intellectual background. Emphasis on such painters as Le Nain, La Tour, Poussin, Claude Lorrain, Champaigne, Puget, Mansard, Le Vau, and Perrault. Satisfies L&S International req. Prereq: jr st

445 Art in Seventeenth Century Spain. 3 cr. U/G. Major figures in the historical and intellectual context of the Golden Age; emphasis on Velazquez, El Greco, Zurbaran, Murillo, and Ribera. Satisfies L&S International req. Prereq: jr st or cons instr

446 Topics in Seventeenth Century Art: (Subtitled). 1 cr. U/G. Major artist or theme in seventeenth-century art, e.g. Rembrandt, Rubens, or portraits and personalities. May be offered as a minicourse. Satisfies L&S International req. Retakable w/chg in topic to 3 cr max. Prereq: jr st

458 A Comparative History of Architecture and Urbanism: (Subtitled). 3 cr. U/G. Physical history of contrasting cities, concentrating on architectural development of all types: institutional, commercial, industrial, residential, and recreational. Emphasizes historical context as well as formal development. Retakable w/chg in topic to 9 cr max. Prereq: jr st

459 American Architecture. 3 cr. U/G. Architecture in the United States from its beginnings in the 17th century to its absorption into international Modernism at the time of World War II. Prereq: jr st; ArtHist 103(P) or 102(P) or cons instr

461 Early Modern Architecture in the Midwest. 3 cr. U/G. The American phase of modern architecture that was centered in Chicago between the 1880's and the 1920's: Sullivan, Wright and their students, colleagues and followers. Prereq: jr st

462 Frank Lloyd Wright. 3 cr. U/G. The work of America's and Wisconsin's best-known architect presented in its historical,

cultural and philosophical contexts. Prereq: jr st; one of the following courses recom: ArtHist 102(R), 359(R), 360(R), 459(R)

463 Cubism and its Inheritance. 3 cr. U/G. The development of Cubism by Picasso and Braque and its progeny in Paris, in futuristic Italy, and in constructivist Russia. Satisfies L&S International req. Prereq: jr st

465 Dada and Surrealist Art. 3 cr. U/G. Two major twentieth-century art movements; their sources, major proponents, and later influence; Duchamp, De Chirico, Ernst, Giacometti, Picasso, Miro, Magritte, Dali. Satisfies L&S International req. Prereq: jr st

466 American Painting and Sculpture: 1945-1960. 3 cr. U/G. Critical survey of the New York School and Abstract Expressionism against the historical-cultural background of the twentieth century. Prereq: jr st & one course in modern art (ArtHist 102 is acceptable)

467 American Painting and Sculpture: Pop Art to the Present. 3 cr. U/G. Critical survey of Pop, Op, Kinetic, Systemic, Minimal, Colorfield, New-Realism, Antiform, Earthworks, Conceptual, and other avant-garde movements of the 1960's and 1970's. Prereq: jr st & one course in modern art (ArtHist 102 is acceptable)

469 American Master Painters: (Subtitled). 3 cr. U/G. Course focuses on three painters from one of five periods: West, Copley, Peale; Allston, Cole, Mount; Homer, Eakins, Ryder; Hopper, Davis, O'Keefe; Pollock, Warhol, Rauschenberg. Specific topic and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 6 cr max. Prereq: jr st

470 Topics in American Art: (Subtitled). 1-3 cr. U/G. In-depth examination of important themes, genres, or subgroups in the evolution of American art. Retakable w/chg in topic to 6 cr max. Prereq: jr st

474 Maya Art. 3 cr. U/G. Ancient Maya art, with emphasis on the Classic Period florescence, its development, and major themes. Satisfies L&S International req. Prereq: jr st

480 Chinese Painting. 3 cr. U/G. Major developments in Chinese painting from 6 B.C. to the modern period, including landscapes, figures, flowers-and-birds, and calligraphy.. Satisfies L&S International req. Prereq: Jr st

481 Topics in Chinese Art: (Subtitled). 1-3 cr. U/G. In-depth examination of important themes, genres, or subgroups in the evolution of Chinese art. Retakable w/chg in topic to 6 cr max. Satisfies L&S International req. Prereq: jr st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

701 Colloquium in Architectural History: (Subtitled). 3 cr. G. Directed readings and discussions on topics in the history of architecture. Emphasis on scholarly source material and methodology. Specific topic and any additional topics will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

703 Introduction to Art Museum Studies. 3 cr. G. Introduction to the roles and responsibilities of art museum personnel; problems of connoisseurship and cataloguing. On-site discussions with museum staff and inspection of additional facilities. Course fee may be assessed. Prereq: grad st; sr st w/cons instr

710 Colloquium in Ancient Art and Archaeology: (Subtitled). 3 cr. G. Directed readings and discussions on topics in the arts of greece, rome, egypt, or the near east. Emphasis on scholarly source materials and methodological approaches. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

720 Colloquium in Medieval Art/Architecture: (Subtitled). 3 cr. G. Directed readings and discussions on topics in early christian byzantine and western medieal art and architecture. Emphasis on scholarly source material and methodological approaches. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

730 Colloquium in Renaissance/Baroque Art/Architecture: (Subtitled). 3 cr. G. Directed readings and discussions on topics in the arts of the renaissance and/or baroque periods. Emphasis on scholarly source material and methodology. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

750 Colloquium in American Art: (Subtitled). 3 cr. G. Directed readings, critical discussions, and short written reports on topics in American art 1600-present. Emphasis on scholarly sources and methodological approaches. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

760 Colloquium in Modern Art/Architecture: (Subtitled). 3 cr. G. Directed readings, critical discussions, and short written reports on topics in modern art/architecture 1800-present. Emphasis on scholarly sources and methodological approaches. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

761 Colloquium in Film History, Theory, Criticism: (Subtitled). 3 cr. G. Readings in contemporary historiography and theory methodologies. Application of criticism to films and periods. 12 essays, 1 paper. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

770 Colloquium in Non-Western Art: (Subtitled). 3 cr. G. Problems in the traditional arts of pre-Columbian America, Africa, and Oceania. Develops methodological skills in art history through the exploration of art in non-western societies. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Independent Field Study. 1-3 cr. G. Independent research in local archives, on local monuments, or on archaeological expeditions. Prereq: grad st; cons instr

891 Art Museum Internship. 3 cr. G. Supervised practical experience in local art museums arranged on individual basis. Introduction to curatorial and/or administrative duties; 'hands on' treatment of works of art. Retakable to 6 cr max. Prereq: grad st; at least 6 cr in ArtHist at grad level & cons internship coord

901 Problems in Art History: (Subtitled). 3 cr. G. Selected problems in art historical scholarship. Students will research scholarly problems in depth and present the results in both oral and written form. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; one 700-level colloquium in ArtHist & cons instr

990 Thesis Research. 3 cr. G. - Retakable to 6 cr max. Prereq: grad st & writ cons grad advisor or instr

999 Reading and Research. 1-3 cr. G. Advanced independent research. For information, consult department chair. Prereq: grad st; cons instr

BIOLOGICAL SCIENCES

College of Letters and Science

Degrees Conferred: MS, PhD in Biological Sciences
Phone: (414) 229-4214
FAX: (414) 229-3926
E-mail: sforst@uwm.edu or whitting@uwm.edu
Web site: www.uwm.edu/Dept/Biology

The Department of Biological Sciences offers graduate programs in biology with areas of concentration in botany; microbiology; cellular and molecular biology; genetics; physiology and morphology of plants and animals; terrestrial and aquatic ecology; beha vioral biology; conservation biology; and evolution.

Facilities of the Great Lakes WATER Institute, the UWM Field Station, the departmental greenhouse, and the electron microscope laboratory provide opportunities for laboratory and field research.

The recommended deadline for submitting applications for admission to the graduate programs in Biological Sciences is January 1 for the Fall semester and for TA or RA support. The recommended deadline for admission for the Spring semester is September 1 and for the summer, January 1. Timely application is encouraged for students seeking financial support. The deadline for Graduate School Fellowship applications is mid-January for the upcoming academic year beginning with the Fall semester.

Highly qualified applicants may be offered a Ruth I. Walker Memorial Fund Scholarship (variable dollar amount), for up to two years. All applicants approved for admission by April 1 are considered for the Ruth Walker award; a special application is not required.

When applying for admission, applicants should describe as completely as possible their specific research interests within biological sciences. Applicants are strongly encouraged to establish contact, before or during the application process, with Biological Sciences faculty members whose research interests are closest to their own, regarding the likelihood of one serving as the student's major professor. To assist the applicant in this process, a Biological Sciences Graduate Program brochure is available, which describes the research activities of the faculty. The brochure can be obtained by contacting the departmental office.

Graduate Faculty

SHAW DISTINGUISHED PROFESSOR

Strickler, J. Rudi, Ph.D., Swiss Federal Institute of Technology

PROFESSORS

Bergtrom, Gerald, Ph.D., Brandeis University
Brooks, Arthur S., Ph.D., Johns Hopkins University, Chair
Buntin, John, Ph.D., Rutgers University
Collins, M. L., Perille, Ph.D., Rutgers University
Heathcote, David R., Ph.D., University of California-Berkeley
Hutz, Reinhold J., Ph.D., Michigan State University
McBride, Mark, Ph.D., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Barreto, Claudia, Ph.D., University of Wisconsin-Madison
Coggins, James R., Ph.D., Wake Forest University
Deppenmeier, Uwe, Ph.D., University of Gottingen, Germany
Dunn, Peter, Ph.D., University of Alberta
Ehlinger, Timothy J., Ph.D., Michigan State University
Forst, Steven, Ph.D., New York University
Hoot, Sara, Ph.D., University of Michigan
Karron, Jeffrey D., Ph.D., University of Colorado
Kaster, Jerry L., Ph.D., University of Colorado
Saffarini, Daad, Ph.D., University of Wisconsin-Milwaukee
Sandgren, Craig, Ph.D., University of Washington
Wejksnora, Peter J., Ph.D., Brandeis University
Wimpee, Charles F., Ph.D., University of California-Los Angeles
Witten, Jane. L., Ph.D., University of Chicago
Whittingham, Linda, Ph.D., Queen's University

ASSISTANT PROFESSORS

Berges, John, Ph.D., University of British Columbia
Cheng, Yi-Qiang (Eric), Ph.D., Michigan State University
Fink, Charles, Ph.D., University of Connecticut
Kuchin, Sergei, Ph.D., Institute of Genetics and Selection of Industrial Microorganisms, Moscow, Russia
Schnitzer, Stefan, Ph.D., University of Pittsburgh
Steeber, Douglas, Ph.D., University of Wisconsin-Madison
Udvadia, Ava, Ph.D., Duke University
Yang, Ching-Hong, Ph.D., University of California-Riverside
Young, Erica, Ph.D., Monash University, Australia
Zeng, Chaoyang, Ph.D., Yale University
Shao, Dazhong (Dave), Ph.D., The Chinese Academy of Sciences, Beijing, China

SENIOR SCIENTISTS

Goetz, Frederick, Ph.D., University of Wyoming
Klump, J. Val, Ph.D., University of North Carolina
Reinartz, James A., Ph.D., Duke University

ASSOCIATE SCIENTISTS

Cuhel, Russell, Ph.D., Massachusetts Institute of Technology and Woods Hole Oceanographic Institute
Janssen, John, Ph.D., Michigan State University
Owen, Heather, Ph.D., Miami University

ASSISTANT SCIENTISTS

Aguilar, Carmen, Ph.D., University of Wisconsin-Milwaukee
Bootsma, Harvey, Ph.D., University of Manitoba
Carvan, Michael, Ph.D., Texas A&M University
Klaper, Rebecca, Ph.D., University of Georgia
Meyer, Gretchen, Ph.D., Cornell University
Rise, Matthew, Ph.D., University of Victoria

Master of Science in Biological Sciences

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate coursework equivalent to the Biological Sciences major at UWM, including coursework in the following areas of plant or animal science: cellular and molecular biology or genetics; organismal biology; ecology.
- A year of physics; chemistry through organic or biochemistry.
- Undergraduate mathematical preparation including at least one course in calculus, statistics, or biometry.
- Submission of scores on the General Test of the Graduate Record Examination.
- At least two letters of recommendation from persons familiar with the applicant's scholarship and research potential.

Applicants may be admitted with specific course deficiencies (e.g. physics, chemistry) provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements with a grade of C or better within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. The student is expected to maintain a grade of B in all other coursework.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The Graduate Committee assigns a faculty advisor as a necessary prerequisite to admission.

Credits and Courses
Minimum degree requirement is 24 graduate credits, at least 18 of which must be in biological sciences and up to 6 of which may be in related areas. Of the 24 credits, at least 12 must be course or seminar credits -- not research credits. The student must take at least two seminars during the course of the student's program up to a maximum of 4 credits counting toward the degree; and enroll in Biology Colloquium each semester with a maximum of 4 colloquium credits counting toward the degree.

The student plans a program of studies in consultation with the major professor. If desired, a special area of concentration (botany, microbiology, physiology) may be declared.

MS Graduate Advisory Committee
The MS Graduate Advisory Committee is selected by the major professor in consultation with the student, by the end of the first year of enrollment. The MS Advisory Committee consists of the major professor and two other graduate faculty members. The Committee must meet at least once a year to monitor and formally report on the student's academic and research progress.

Oral Examination
The student must pass an MS oral examination. The examination should be taken by the end of the first year of enrollment, but in any event, must be taken no later than the end of the second year of enrollment. The MS Advisory Committee administers the oral examination.

Thesis
Students must prepare and defend a thesis reporting the results of their research. During the final year of study, students must present a seminar on their research, with prior public announcement.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Biological Sciences

Admission
An applicant must meet Graduate School requirements plus the following program requirements to be considered for admission:

- Applicant must present at least 30 credits in one or more areas of biological sciences and must show substantial evidence of scholarly potential. A master's degree is not prerequisite for admission to the PhD program.
- Other academic preparation: a year of general physics including at least one semester of laboratory; one year of general college chemistry with laboratory, plus at least one semester of organic chemistry with laboratory or biochemistry with laboratory; two courses in college mathematics chosen from among courses in calculus, biometry or statistics.
- Submission of scores on the General Test of the Graduate Record Examination.
- Acceptance by a faculty member in the program who will act as major professor (sponsor): see Major Professor as Advisor.
- Three letters of recommendation from persons familiar with the applicant's scholarship, research achievements and potential.

Applicants may be admitted with specific course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements with a grade of C or better within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. The student is expected to maintain a grade of B in all other coursework.

Reapplication
A student in the MS program, or who receives the master's degree at UWM, must formally reapply for admission to the Graduate School before continuing studies toward the PhD.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The graduate committee as-

signs the incoming biological sciences student to an advisor whose experience and research most closely approximates the student's own career interests. Before the student's preliminary examination either this initially assigned advisor or another qualified staff member is designated as the student's major professor.

Course of Study
Minimum degree requirement is 54 credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. Of the 54 credits, at least 28 must be earned in formal courses and graduate seminars. (Four colloquium credits are required after the bachelor's degree and count toward the degree.) The student must take at least three seminars during the student's course of study up to a maximum of 8 credits counting toward the degree. The remaining 26 credits may be earned in independent reading and/or study, or research. At least 30 of the 54 credits must be in biological sciences; 12 credits may be earned in allied sciences, including those in the secondary area of concentration or minor field(s).

Secondary Area of Concentration
The student must select a secondary area of concentration either within biological sciences or in an allied science, and must present at least 9 credits of course work in that area to the departmental Graduate Committee. A university minor (option A or B) may qualify as a secondary area of concentration upon approval by the departmental Graduate Committee.

Language or Data Analysis Proficiency
The student must demonstrate proficiency either in a foreign language or data analysis. The student can demonstrate language proficiency in one language other than English (German, French, Russian or Spanish preferred), either through examinations or through 12 credits of specified coursework, either before or after admission to the program. The student can demonstrate proficiency in data analysis by presenting 12 credits in one or more of the following: mathematics (200-level or above), statistics, computer science.

Residence
The student must meet Graduate School residence requirements.

PhD Advisory Committee
The PhD Advisory Committee shall be selected by the major professor in consultation with the student by the end of the first year of enrollment. The PhD Advisory Committee shall consist of the major professor and four other graduate faculty members. One of the faculty should reflect competency in the secondary area of concentration. When the advisory committee is formed, the student must prepare a departmental "certification document" for the approval of the committee. The committee must meet at least once a year to monitor and formally report on the student's academic and research progress.

Dissertation Proposal and Doctoral Preliminary Examination
Prior to the doctoral preliminary examination, the student submits a preliminary written dissertation proposal to the student's PhD Advisory Committee and delivers an oral presentation of relevant research in progress. The doctoral preliminary examination is in two parts. Part I is a written exam; Part II is an oral exam. Parts I and II of the doctoral preliminary examination must be taken with a warrant from the Graduate School; and must be taken before the end of the second or third year of full-time enrollment (before completion of 24 or 36 credits for students with a MS or BS degree, respectively). Deviation from this plan must be approved by the Graduate Committee.

Dissertator Status
Specific requirements which must be completed before the Graduate School places a doctoral student in dissertator status are described in the Graduate Student and Faculty Handbook and the Doctoral Student and Advisor Manual.

Dissertation
In consultation with the major professor the candidate must select a suitable research project and submit a written research plan. The final dissertation proposal constitutes the student's written research plan which is subject to approval of the PhD Advisory Committee. This plan is to be submitted to the Department. The research plan will be reviewed for progress annually.

During the final year of study the candidate must present a seminar, with prior public announcement, on this research and must prepare a dissertation reporting the results of this research. The original research findings embodied in this dissertation should be acceptable for publication in a refereed journal.

Dissertation Defense
As the final step toward the degree the candidate must defend the dissertation before the PhD Advisory Committee.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Doctor of Philosophy Degree chapter of the Graduate Student and Faculty Handbook.

Doctor of Philosophy with an Interdisciplinary Specialty in Biogeochemistry

Under the auspices of the doctoral programs in Chemistry, Biological Sciences, and Geosciences and the research program of the Center for Great Lakes Studies, the Department of Biological Sciences offers doctoral training with an interdisciplinary specialization in Biogeochemistry. This specialization provides a multi-disciplinary program within the broad field of environmental and aquatic science.

Admission
Prospective students wishing to specialize in Biogeochemistry must initially be admitted to the Department of Biological Sciences Doctoral Program. Admission to the Interdisciplinary Specialty is determined by the Interdisciplinary Biogeochemistry Specialization Committee consisting of representatives from the participating departments and the Center for Great Lakes Studies. In addition to departmental admission requirements, students are expected to have an undergraduate degree in biological sciences or a closely related field and to have completed at the college level at least two semesters of calculus, one semester of statistics, two years of chemistry and one year of physics. A master's degree is not a prerequisite for admission to the PhD program.

Major Advisor and Research Committee
Entering students will be assigned a temporary major professor to advise and supervise their studies. No later than the end of the third semester, students in this specialization are required to choose a

permanent major advisor to direct their doctoral research and to form a graduate thesis research committee consisting of graduate faculty from the Departments of Biological Sciences, Chemistry and Geosciences, and the Center for Great Lakes Studies.

Course of Study
All doctoral students are required to earn a minimum of 54 credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. The curriculum of the Specialization includes a required Biogeochemistry Core course taken in the first year of graduate study, an annual seminar course requirement, and individualized course requirements selected by the student's graduate thesis research committee from a wide variety of course offerings in the sciences and related fields, based upon the student's background and doctoral research topic. At the end of the first year, students must pass a written qualifying examination based upon core course materials and their departmental major in order to continue in the Biogeochemistry Specialization.

Students are expected to pursue a program of highly original, interdisciplinary research in the broad field of environmental science, which synthesizes the linkages among the physical, chemical and biological components of the natural world. In addition to course work and research, students in the Interdisciplinary Specialization are required to obtain at least one semester of teaching experience as a teaching assistant in one the natural science departments, and participate in local community outreach through presentations, instruction, or interactions with local secondary schools, or other community involvement related to environmental issues. All students are required to obtain field experience as an integral part of their training program, e.g. through field research activities here or abroad, participation in sea-going research cruises, etc.

Doctoral Preliminary Examination
In order to advance to candidacy for the PhD degree, students must pass a written and oral doctoral preliminary examination no later than at the end of their second year, demonstrating a comprehensive knowledge in the field of biogeochemistry and their own chosen area of specialization. Upon completion of their research, students must prepare and defend a dissertation, reporting the results of their research in a public forum.

Further Information
Admission, general program requirements, and additional information on degree and research opportunities can be obtained from the departmental office or from the UWM Center for Great Lakes Studies.

Courses

Biological Sciences (BIO SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

401 Immunology. 2 cr. U/G. Fundamentals of the immune response, including cellular, physiological and molecular aspects. 2 hrs lec. Animal or molecular/microbiology course. Prereq: jr st; Bio Sci 315(P) or 325(260)(P); Chem 341(P) or 343(P)

402 Immunological Techniques. 3 cr. U/G. Modern methods and protocols in immunology. 6 hrs lab. Animal or molecular/microbiology course. Prereq: jr st; Bio Sci 401(C)

405 General Virology. 3 cr. U/G. Basic course in nature of viruses: bacterial, plant, and animal. The use of viruses in model systems for molecular biology and agents of disease. Molecular/microbiology course. Prereq: jr st; Bio Sci 325(260)(P); Bio Sci 315(P) or 383(303)(P); Chem 501(R)

406 Marine Biology. 3 cr. U/G. Marine biology with a strong ecological focus; physical and chemical constraints that marine environments impose on organisms; specialized adaptations of marine organisms in response. 2 hrs lec, 1 hr dis. Animal or environmental/evolutionary course. Prereq: jr st; Bio Sci 152(P) & 310(P)

407 Plant Systematics and Evolution. 3 cr. U/G. Including a survey of important plant families; plant systematic theory, currect techniques in data collection and analysis. 2 hrs lec/dis; 4 hrs lab. Plant course. Prereq: jr st; Bio Sci 150(P) & 152(P)

408 Dendrology. 3 cr. U/G. The systematics, structure, and ecology of Wisconsin's woody plants. 2 hrs lec, 4 hrs lab & field work. Plant course. Prereq: jr st; Bio Sci 150(P) & 152(P)

425 Biology of Algae. 4 cr. U/G. A survey of algae with emphasis on systematics, diversity and ecology. Laboratory includes techniques for culturing algae and quantitative techniques for sampling and enumeration. 3 hrs lec, 4 hrs lab. Plant course. Prereq: jr st; Bio Sci 150(P) & 152(P) or equiv

430 (530) (effective 01/24/2005) Animal Behavior-Ethology. 3 cr. U/G. Animal behavior from the biologist's point of view, relating species-characteristic behavior to environment, internal function, ontogeny, and evolution. 3 hrs lec/dis. Animal course. Prereq: jr st; Bio Sci 310(P) or 316(C)

435 Identification and Systematics of Flowering Plants. 3 cr. U/G. Identification and systematics of native and naturalized plants in forests, prairies, savannahs, and old fields of southeastern wisconsin. 1 hr lec, 4 hrs lab/field work. Plant course. Prereq: jr st; Bio Sci 152(P) & 407(R)

455 Neurobiology. 3 or 4 cr. U/G. Introduction to the study of nervous systems ranging from the basic biophysical properties of neurons to the cellular and molecular basis of learning and memory. Animal or molecular/microbiology course. Grads must enrol in Lec & Dis for 4 cr; undergrads may enrol in lec only for 3 cr, or in lec & dis for 4 cr. Prereq: jr st; Bio Sci 150(P) & 152(P); a course in physiol, cell biology, or physiol psych

458 Community Ecology. 3 cr. U/G. Theories and models in community ecology. Analysis of biological communities emphasizing the origin, maintenance and consequences of species diversity within local communities. Environmental/evolutionary course. Prereq: jr st; Bio Sci 152(P) & 310(P) or cons instr; or grad st

465 Biometry. 3 cr. U/G. Simple distribution; statistical inference; simple regression theory; experimental design; analysis of variance and covariance as they relate to biology. Plant or animal or molecu-

lar/microbiology or environmental/evolutionary course. Prereq: jr st; Bio Sci 150(P); Math 105(P)

470 Cell and Molecular Biology. 4 cr. U/G. The various processes and functions performed by living cells, particular attention to the molecular basis of cellular activities. 3 hrs lec, 4 hrs lab-dis. Molecular/microbiology course. Prereq: jr st; Bio Sci 150(P), 152(P) & 325(260)(P); course in organic chem, or cons instr

482 Aquatic Plant Biology. 4 cr. U/G. The systematics and ecology, structure and physiology of aquatic vascular plants. 3 hrs lec, 4 hrs lab & field work. Plant course. Prereq: jr st; Bio Sci 150(P) & 152(P)

490 (660) Molecular Biology. 3 cr. U/G. Molecular mechanisms of higher organisms and model systems; recombinant DNA, animal and plant cell culture, molecular genetics of cancer. 2 hrs lec, 1 hr dis. Molecular/microbiology course. Prereq: jr st; Bio Sci 325(260)(P); Bio Sci 315(C) & 316(C)

497 (effective 01/24/2005) Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM-sponsored program before course work level, content, and credits are determined and/or in specially-prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

500 (effective 01/24/2005) Plant Physiology. 3 cr. U/G. Major biological activities of plants; including growth, development, and metabolism. 3 hrs lec/dis. Plant course. Prereq: jr st; Bio Sci 325(P); Bio Sci 310(P) or 315(P) or cons instr

500 Plant Physiology. 3 cr. U/G. Major biological activities of plants; including growth, development, and metabolism. 3 hrs lec/dis. Plant course. Prereq: jr st; Bio Sci 150(P), 152(P). 1 yr college chem (organic chem recom)

501 Plant Physiology Laboratory. 2 cr. U/G. Basic laboratory techniques useful in studying plant activities. 6 hr la/ds. Plant course. Prereq: jr st & Bio Sci 500(C)

505 Conservation Biology. 3 cr. U/G. Genetic and ecological approaches to the conservation of biological diversity. Topics include biology of rare plants and animals, design of nature reserves, and restoration ecology. 3 hrs lec. Environmental/evolutionary course. Prereq: jr st; Bio Sci 152(P) & 325(260)(P)

511 Ichthyology. 3 cr. U/G. The classification, morphology, physiology, and ecology of fishes. 2 hrs lec, 4 hrs lab, field work. Animal course. Prereq: jr st; Bio Sci 150(P) & 152(P)

512 Limnology I. 3 cr. U/G. The ecology of freshwater ecosystems as influenced by physical and chemical processes. Environmental/evolutionary course. Prereq: jr st; Bio Sci 150(P) & 152(P), course in chem; or cons instr

513 Limnology I Laboratory. 1 cr. U/G. Field sampling techniques and analytical methods for assessing biological, chemical, and physical processes in aquatic ecosystems. Environmental/evolutionary course. Prereq: jr st; Bio Sci 512(C)

514 Limnology II. 3 cr. U/G. Ecology of freshwater organisms. A study of primary producers, microorganisms, zooplankton, benthos and fish inhabiting freshwater; their interactions with each other and the aquatic environment. Environmental/evolutionary course. Prereq: jr st; Bio Sci 512(P) & 310(P)

521 Benthic Ecology. 3 cr. U/G. Chemicophysical and biological interactions in aquatic systems. Emphasis on aquatic entomology and invertebrate biology. 2 hrs lec, 4 hrs lab. Environmental/evolutionary course. Req'd field work for which fee is assessed Prereq: jr st; Bio Sci 310(P), & 512(P)

523 Evolution and Ecology of Birds. 3 cr. U/G. Study of the origin and maintenance of diversity in birds. Topics include systematics, biogeography, life-history behavior, and conservation. 3 hrs lec. Animal or environmental/evolutionary course. Prereq: jr st; Bio Sci 152(P) & 310(P)

524 Bird Ecology Laboratory. 1 cr. U/G. Bird taxonomy and ecology, including the identification of Wisconsin birds. 4 hrs lab & field work. Animal or environmental/evolutionary course. Field trip schedules (if any) and fees will be announced in class. Prereq: jr st; Bio Sci 523(C)

525 Ecology and Evolution of Fishes. 3 cr. U/G. Studies of form and function in fishes and relationships with their environment. Topics include feeding and reproductive ecology, species interactions, evolution, and genetics. 3 hrs lec. Animal or environmental/evolutionary course. Prereq: jr st; Bio Sci 310(P)

526 Fish Ecology Laboratory. 1 cr. U/G. Studies of the ecological structure of freshwater fish communities, research techniques, environmental requirements of fishes, and management strategies. 4 hrs lab & field work. Animal or environmental/evolutionary course. Prereq: jr st; Bio Sci 525(C)

529 (650) Molecular Biology of Microorganisms. 3 cr. U/G. Molecular analysis of microbial genetic systems of bacteria, phage, fungi, and yeast. 2 hrs lec, 1 hr dis. Molecular/microbiology course. Prereq: jr st; Bio Sci 383(303) (P)

530 Animal Behavior-Ethology. 3 cr. U/G. Study of animal behavior from the biologist's point of view, relating species-characteristic behavior to environment, internal function, ontogeny, and evolution. 3 hrs lec/dis. Animal course. Prereq: jr st; Bio Sci 150(P) & 152(P)

532 (655) Behavioral Ecology. 3 cr. U/G. Behavioral adaptations of organisms in relation to their environment, including social organization, territoriality, cooperation and conflict, parental care, breeding strategies, foraging. Animal or environmental/evolutionary course. Prereq: jr st; Bio Sci 310(P)

536 Applied Microbiology and Biotechnology. 2 cr. U/G. Real-world application of natural and genetically-engineered microorganisms to bioremediation, waste treatment, agriculture and production of food, beverages, chemicals, fuels, enzymes, vaccines and pharmaceuticals. 2 hrs lec. Molecular/microbiology course. Prereq: jr st; Bio Sci 383(303)(P) or cons instr

539 (663) Laboratory Techniques in Molecular Biology. 4 cr. U/G. Molecular biological techniques, including cell cultures, RNA and DNA isolation, cloning and sequencing of genes; use of expression vectors; protein electrophoresis. 2 hrs lec/dis, 6 hrs lab. Molecular/microbiology course. Prereq: jr st; Bio Sci 315(P), 316(P) & 325(260)(P)

540 Microbial Diversity. 3 cr. U/G. Physiology, ecology, and diversity of microorganisms. 3 hrs Lec. Molecu-

lar/microbiology or environmental/evolutionary course. Prereq: jr st; Bio Sci 383(303) (P)

542 Biological Electron Microscopy. 3 cr. U/G. Theory, design, and operating principles of scanning and transmission electron microscopes; preparation of biological specimens. Molecular/microbiology course. Prereq: jr st; Bio Sci 315(P) & 316(P) or cons instr

543 (343) Scanning Electron Microscopy Laboratory. 2 cr. U/G. Lab/dis with an emphasis on 'hands-on' exercises including biological specimen prep, microscope operation and photography. Molecular/microbiology course. Prereq: jr st; Bio Sci 542(C) & cons instr

544 Transmission Electron Microscopy Laboratory. 3 cr. U/G. Lab/dis with an emphasis on 'hands-on' exercises including fixation and sectioning of biological specimens, microscope operation and photography. Molecular/microbiology course. Prereq: jr st; Bio Sci 542(C) & cons instr

553 (430) Marine Algae. 3 cr. U/G. The biology of marine macroalgae (seaweeds) with emphasis on structure, reproduction and ecological interactions in subtidal and rocky intertidal habitats. 2 hrs lec; 1 hr dis. Plant course. Students are encouraged to enroll subsequently in Bio Sci 554. Prereq: jr st; Bio Sci 152(P) & 310(P)

554 Marine Algae Laboratory. 1 cr. U/G. A three-week field trip to a marine station to study seaweeds and intertidal ecology at student's expense. Plant course. Prereq: jr st; Bio Sci 553(C)

560 Plant Ecology. 3 cr. U/G. Study of plant-environment relationships at the individual, population and community levels. 2 hrs lec, 4 hrs lab & field experience. Plant or environmental/evolutionary course. Prereq: jr st: Bio Sci 150(P), 152(P), 310(P). Bio Sci 407(R)

562 Topics in Field Biology: (Subtitled). 1-2 cr. U/G. Intensive mini-course on topics in applied and basic field biology such as vegetation sampling, natural area management, wetland delineation. Environmental/evolutionary or may satisfy plant or animal, depending on topic; consult dept. Retakable w/chg in topic to 6 cr max. Prereq: jr st; Bio Sci 310(P); add'l prereqs may be required depending on topic

572 Genomics. 3 cr. U/G. Organization, function, and evolution of genomes; how they are analyzed; current knowledge of genomes in various organisms. 2 hrs Lec, 1 hr Dis. Molecular/microbiology course. Prereq: jr st; Bio Sci 325(260) (P)

573 (676) Cellular Evolution. 3 cr. U/G. Theories concerning the origin of life on Earth and the evolution of cellular structure and function, culminating in the emergence of the multicellular kingdoms. 2 hrs lec, 1 hr dis. Molecular/microbiology or environmental/evolutionary course. Prereq: sr st; Bio Sci 315(P) or 325(260)(P); Bio Sci 316(P); Chem 341/342(P) or 343/344/345(P), or cons instr; Bio Sci 383(303)(R) or 490(660)(R) or Chem 501(R) or 601(R)

575 Evolutionary Biology. 3 cr. U/G. Evolutionary processes in natural populations. Topics include mating patterns, speciation, gene flow, natural selection, and genetic approaches to conservation. 3 hrs lec. Environmental/evolutionary course. Grad students must reg conc in Bio Sci 776. Prereq: jr st; Bio Sci 152(P) & 325(260)(P).

580 Experimental Microbiology. 4 cr. U/G. Modern experimental approaches to study of microbial physiology and genetics. 2 hrs lec/6 hrs lab. Molecular/microbiology course. Prereq: jr st; Bio Sci 383(303) (P)

595 (effective 01/24/2005) Principles of Genetic and Molecular Engineering. 3 cr. U/G. Conceptual knowledge about the principles of genetic and molecular engineering; for upper undergraduate and graduate students. Molecular/microbiology course. Prereq: jr st; Bio Sci 325(P) & 383(P) or equiv or cons instr

599 Special Topics in Biological Sciences: (Subtitled). 1-3 cr. U/G. In-depth examination of important subjects in one or more areas of the biological sciences. Specific credits and add'l prereqs announced in Timetable each time course offered. Specific topics may satisfy major area req; consult dept. Retakable w/chg in topic to 9 cr max. Prereq: jr st

605 Concepts and Models of Aquatic Ecology. 3 cr. U/G. Interactions between aquatic organisms and their physical and chemical environments; case histories of concept and model development. 2 hrs lec, 1 hr dis. Environmental/evolutionary course. Prereq: jr st; Bio Sci 310(P) or cons instr

607 Environmental Microbiology. 3 cr. U/G. Bacteria from the environment; emphasis on aquatic systems; biogeochemical cycles, bioremediation, and environmental control of gene expression. Molecular/microbiology or environmental/evolutionary course. Prereq: jr st; Bio Sci 383(303)(P)

611 Seminar on Recent Advances in Limnology and Oceanography: (Subtitled). 2 cr. U/G. Lectures and discussion of current issues in limnology and oceanography; focus on a specific issue or research topic. Environmental/evolutionary course. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: jr st; Bio Sci 512(P) or cons instr

615 Human Physiology. 4 cr. U/G. An advanced study of human physiological systems and their mechanisms. 3 hrs lec; 3 hrs lab/dis. Animal course. Prereq: jr st; Bio Sci 150(P) & 152(P), Bio Sci 203(P)

625 Human Genetics. 3 cr. U/G. Principles of human cytogenetics, biochemical genetics, immunogenetics, and population genetics. 3 hrs lec-dis. Molecular/microbiology course. Prereq: jr st; Bio Sci 325(260)(P)

630 Endocrinology. 3 cr. U/G. Morphological, physiological, biochemical and phylogenetic aspects of hormone action, with emphasis on vertebrates. 3 hrs lec. Animal course. Prereq: jr st; a course in organic chem; Bio Sci 150(P) & 152(P), or cons instr

640 Biological Theories. 3 cr. U/G. History and current status of selected theories in biology. 3 hrs lec/dis. Prereq: jr st; 1 yr of Chem; Bio Sci 150(P) & 152(P), or cons instr

656 Developmental Neurobiology. 3 or 4 cr. U/G. The mechanisms involved in the genesis and maintenance of nervous system organization. 3 hrs lec, 1 hr dis. Grad students enroll in lec/dis for 4 cr. Undergrads may enroll in lec only for 3 cr, or lec/dis for 4 cr. Animal or molecular/microbiology course. Prereq: jr st; Bio Sci 356(P) or 455(P) or cons instr

667 Advanced Techniques in Microbial, Molecular and Cellular Biology: (Subti-

tled). 4 cr. U/G. Such topics as hybridoma technology, bacterial gene transfer, gene expression systems. 1 hr dis, 6 hrs lab. Topic and any add'l prereqs announced in Timetable each time course is offered. Molecular/microbiology course. Retakable w/chg in topic to 9 cr max. Prereq: sr st; Bio Sci 383(303)(P) or equiv or cons instr

675 Physiology of Reproduction. 3 cr. U/G. Mammalian reproductive physiology with emphasis on humans; neuroendocrine control of reproductive cycles, pregnancy, and lactation; clinical implications; biological aspects of human population control. Animal course. Prereq: jr st; Bio Sci 150(P) & 152(P); Chem 341(P) or 103(P); or cons instr

700 Principles in Molecular Biology. 4 cr. G. Molecular aspects of gene regulation, development, signal transduction, cell cycle control, cell-cell communication and cell motility. 3 hrs lec, 1 hr dis. Prereq: grad st; Chem 501(R) or equiv

704 Biogeochemistry: (Subtitled). 1-4 cr. G. The role of aquatic, atmospheric, and terrestrial environments in mediating and controlling the cycles of biologically important elements on time scales of milliseconds to millenia. Jointly-offered with Chem 704 & Geo Sci 704. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

708 Issues and Practices in Biology Education. 1 cr. G. Workshops for college educators on classroom presentation and management, interactive learning, student- and self-assessment, teaching in the laboratory. 3 hr lc/ds. Prereq: grad st

715 Cardiovascular and Respiratory Physiology. 3 cr. G. Human cardiovascular and respiratory systems, including structure, function, control mechanisms and clinical implications of each system. 3 hrs lc-ds. Prereq: grad st; Bio Sci 202(P), 203(P) & 320(P) or cons instr

725 Recent Advances in Molecular Microbiology and Immunology: (Subtitled). 3 cr. G. Current developments and research in molecular microbiology and/or immunology. 3 hrs lec. Retakable w/chg in topic to 9 cr max. Prereq: grad st or cons instr

730 Molecular Endocrinology. 3 cr. G. Molecular basis of hormone action leading to nuclear and cytoplasmic responses at the molecular level are related to cellular and physiological actions. 3 hrs lc. Prereq: grad st; Bio Sci 470(P) & 630(P) or 660(P)or cons instr

750 Scientific Writing. 2 cr. G. Writing techniques for the sciences, including proposal writing, submission of papers to journals. Writing and editing research proposals, scientific papers, and review papers. Critique of published papers. Prereq: grad st

776 Evolutionary Biology Laboratory. 1 cr. G. Experimental approaches to the study of ecological genetics. Topics include techniques for measurement and analysis of genetic variation, fitness, inbreeding depression, and mating systems. 3 hrs lab. Prereq: grad st or cons instr; Bio Sci 575(C)

804 Current Topics in Biogeochemistry: (Subtitled). 1 or 2 cr. G. Impact of biological, geological, and chemical principles on selected interdisciplinary topics; scientific and mass media publications and results of new studies are critiqued. Jointly-offered with Chem 804 & Geo Sci 804. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

805 Field and Lab Techniques in Biogeochemistry: (Subtitled). 1 or 2 cr. G. Field and sampling methodology and analytical techniques employed in the study of biogeochemistry. May include underwater technology, isotopes/tracers, statistics, and remote sensing. Offered jointly with Chem 805 & Geo Sci 805. 4 lab/field hrs per cr. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

899 Advanced Independent Studies. 1-3 cr. G. Special studies at the graduate level involving independent reading, library research, and/or field for laboratory study other than thesis research. Retakable w/chg in topic to 8 cr max. Prereq: grad st; cons instr

900 Biology Colloquium. 1 cr. G. Talks by invited speakers and faculty members on topics of biological interest. Prereq: grad st

925 Seminar: Molecular and Cell Biology: (Subtitled). 1-2 cr. G. - Prereq: grad st

927 Seminar: Population and Community Ecology: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

928 Seminar: Aquatic Biology: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

929 Seminar: Behavioral Biology: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

930 Seminar: Physiology and Endocrinology: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

931 Seminar: Systematic Biology and Evolution: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

932 Seminar: Genetics: (Subtitled). 1 or 2 cr. G. Carries 1 cr when offered once weekly; carries 2 cr when offered twice weekly. Retakable w/chg in topic to 9 cr max. Prereq: grad st

990 Research. 1-5 cr. G. - Prereq: grad st

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of graduate programs in Biological Sciences.

Clinical Laboratory Science 534 Medical Microbiology. 2 cr. U/G.

Clinical Laboratory Science 535 Medical Microbiology Laboratory. 2 cr. U/G.

Geological Sciences 527 Survey of Vertebrate Paleontology. 3 cr, U/G.

Psychology 654 Advanced Physiological Psychology. 4 cr, U/G.

BUSINESS ADMINISTRATION

School of Business Administration

Degrees Conferred: MBA; MS in Management; PhD in Management Science
FAX: (414) 229-2372
Web site: www.uwm.edu/business

MBA/MS
Phone: (414) 229-5403
E-mail: uwmbusmasters@uwm.edu
Executive MBA
Phone: (414) 229-5738
E-mail: emba@uwm.edu
PhD
Phone: 229-4542
E-mail:uwmbusphd@uwm.edu
MHRLR
Phone: (414) 229-4310
E-mail:mhrlr@uwm.edu
Graduate Certificate in State and Local Taxation
Phone: (414) 229-5403
E-mail: sba@uwm.edu

The School of Business Administration offers MBA, Executive MBA, MS, and PhD graduate degree programs. A joint program, Master of Human Resources and Labor Relations, is also offered, as is a Graduate Certificate in State and Local Taxation.

The MBA program is an innovative program designed for success in an increasingly complex business environment. The program is a powerful blend of management theory, functional skills, and practical application. It features a flexible structure and a strong selection of specialized elective tracks designed to meet career and professional development needs.

The MS in Management program is a unique graduate program designed to develop corporate specialists, offering in-depth knowledge and skills in twelve areas of concentration: accounting, change management, eBusiness, engineering management, finance analysis, health care management, international business, management information systems, marketing, manufacturing innovation and enterprise management, professional accounting, and taxation. The program creates an intellectually stimulating learning environment in which students acquire a strong knowledge relevant to their chosen area of concentration and a skill set (critical thinking, analysis, communication) needed for career success.

Both programs are designed to accommodate students with backgrounds in engineering, and the liberal arts and sciences as well as undergraduate majors in business. MBA and MS classes are offered during evening hours to meet the needs of working professionals. Full-time students can also take full advantage of the evening scheduling.

The Executive MBA Program is a two-year accelerated program uniquely designed for mid-career managers, executives, professionals, and entrepreneurs. Classes meet one day per week, on alternating Fridays and Saturdays, for maximum flexibility for students and employers.

The School of Business Administration and the College of Letters and Science offer a joint degree, the Master of Human Resources and Labor Relations (MHRLR). This master's program offers students an interdisciplinary blend of courses and faculty in the areas of human resources and labor relations. The curriculum prepares students for careers as practitioners and emphasizes a firm grounding in both the liberal arts and business.

The School of Business Administration and the College of Letters and Science also jointly offer the Master of Public Administration degree, with a curriculum that links coursework from Political Science, Business, Urban Planning, and Economics. This program is designed to prepare students for leadership and management careers in local, state, and national government.

The PhD program is a rigorous and high-quality, research-oriented program that offers students an opportunity to specialize in one of five management fields: finance, management information systems, marketing, organizations & strategic management, and production/operations management. Individuals completing the program are expected to pursue academic careers in research-oriented schools of management or research careers in public and private enterprises.

The Graduate Certificate in State and Local Taxation is designed to provide students with the knowledge and skills needed to successfully pursue or advance careers within tax departments of corporations, CPA firms, law firms, and government agencies.

Graduate Faculty

PROFESSORS

Bender, Bruce, Ph.D., University of Chicago
Cheng, Rita H., Ph.D., Temple University, CPA, A.O. Smith Professor
Fischer, Paul M., Ph.D., University of Wisconsin-Madison, CPA, Jerry Leer Professor
Ghose, Sanjoy, Ph.D., Carnegie-Mellon University
Haseman, William D., Ph.D., Purdue University, Wisconsin Distinguished Professor
Hsu, Der-Ann, Ph.D., University of Wisconsin-Madison
Jain, Hemant, Ph.D., Lehigh University, Wisconsin Distinguished Professor
Kroncke, Charles O., Ph.D., University of Minnesota
Liu, John, Ph.D., Pennsylvania State University
Mone, Mark, Ph.D., Washington State University, Associate Dean
Ng, Lillian, Ph.D., University of Pensylvania, Hans Storr Professor
Peracchio, Laura, Ph.D., Northwestern University
Prasad, V. Kanti, Ph.D., Michigan State University, Bostrom Professor, Dean
Priem, Richard, Ph.D., University of Texas at Arlington, Manegold Professor
Ragins, Belle, Ph.D., University of Tennessee
Ramamurthy, Keshavamurthy, Ph.D., University of Pittsburgh
Soofi, Ehsan, Ph.D., University of California-Riverside
Yasai-Ardekani, Masoud, Ph.D., City University Business School, London
Zahedi, Fatemeh (Mariam), D.B.A., Indiana University, Wisconsin Distinguished Professor

ASSOCIATE PROFESSORS

Alwan, Layth C., Ph.D., University of Chicago
Arnold, Patricia, Ph.D., University of Wisconsin-Madison, CPA
Freeman, Sarah J., Ph.D., University of Michigan

Haas, Timothy, Ph.D., Colorado State University.
Kim, Yong-Cheol, Ph.D., The Ohio State University
Kimmel, Paul, Ph.D., University of Wisconsin-Madison, CPA
Kozub, Robert, D.B.A., University of Kentucky, CPA
Kren, Leslie, Ph.D., University of Houston, CPA
Marcus, Richard, Ph.D., University of Chicago
Miller, Janice S., Ph.D., Arizona State University
Mukhopadhyay, Samar, Ph.D., University of Texas-Austin
Nazareth, Derek L., Ph.D., Case Western University
Papatla, Purushottam, Ph.D., Northwestern University
Pillsbury, Ceil M., Ph.D., Oklahoma State University, CPA
Saemann, Georgia, Ph.D., Michigan State University, CPA
Schadewald, Michael S., Ph.D., University of Minnesota, CPA
Sinha, Atish Ph.D., University of Pittsburgh

ASSISTANT PROFESSORS

Ambrose, Paul, Ph.D., Southern Illinois University
Bauman, Christine Czekai, Ph.D., University of Wisconsin-Madison, CPA
Bauman, Mark, Ph.D., University of Wisconsin-Madison
Berg, David, Ph.D., University of Minnesota
Bhatnagar, Amit, Ph.D., State University of New York at Buffalo
Gonzalez, Jorge, Ph.D., Texas A&M University
Gupta, Susan Forquer, Ph.D., University of Tennessee
Haines, Marc, Ph.D., University of Georgia
Kao, Yi-Ching, Ph.D. University of Texas-Dallas
Khang, Kenneth, Ph.D., University of Washington
King, Tao-Hsien (Dolly), Ph.D., University of Wisconsin-Madison
Levitas, Edward, Ph.D., Texas A&M Universtiy
Maiga, Adam S., Ph.D., University of Memphis
Mao, En, Ph.D., University of Memphis
McKay, Patrick, Ph.D., University of Akron
Nikolaeva, Ralitza, Ph.D., Purdue University
Reeves, Terrie C., Ph.D., University of Alabama at Birmingham
Ringberg, Torsten, Ph.D., Pennsylvania State University
Rothenberger, Marcus, Ph.D., Arizona State University
Singh, Romila, Ph.D., Drexel University
Srite, Mark, Ph.D., Florida State University
Taylor, William J., Ph.D., Georgia State University, CPA
Wang, Qinghai, Ph.D., The Ohio State University
Wang, T.J., Ph.D., Rutgers University
Wilson, E. Vance, Ph.D., University of Colorado-Boulder
Wongsunopparat, Sumas, Ph.D., Cornell University
Zhao, Huimin, Ph.D., University of Arizona

Master of Business Administration

Admission
An applicant must meet Graduate School requirements plus the following program requirements to be considered for admission:

- A bachelor's degree from an accredited college or university.
- Submission of score on the Graduate Management Admission Test (GMAT).
- Review by the MBA Program Committee to assess academic achievement and the ability to do intensive graduate-level work.

MBA foundation coursework provides the basis for the theory and practice of business. This coursework is required for those entering the program without an undergraduate business degree from an AACSB accredited school and consists of 9 credits (4 courses);

Bus Adm 700 Building Business Interfacing Skills (2 cr)

Bus Adm 701 Business Mathematics (2 cr)

Bus Adm 702 Business Statistics (2 cr)

Bus Adm 703 Financial Accounting (3 cr)

This coursework is waived for individuals who have completed an AACSB-accredited undergraduate business degree program. Other individual course exemptions will be determined on a case-by-case basis. Students also are assumed to have basic proficiency in the use of word processing, spreadsheet, and database software. Credits earned in these courses do not count toward the degree.

Major Professor as Advisor
The student in the MBA program is not assigned an advisor or major professor. Questions about the student's program of study, courses or regulations should be directed to Graduate Program Services, BUS N251, (414)229-5403.

Credits and Courses
The degree requirements for the Master of Business Administration degree are 36 or 39 credits without a concentration, or 39-42 credits with a concentration. Students with a BBA degree and a major in accounting, finance, management, marketing, or production/operations management will be waived from the 3-credit core course that corresponds to their major field of study. Students with a double undergraduate major may be waived from two core courses, but must substitute three elective credits to maintain the minimum 36 credits.

MBA Core - 24 or 27 credits
Bus Mgmt 704 Accounting Analysis and Control
Bus Mgmt 705 Corporate Finance
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Mgmt 707 Information Technology for Competitive Advantage
Bus Mgmt 708 Marketing Strategy: Concepts and Practice
Bus Mgmt 709 Data Analysis for Management Applications
Bus Mgmt 710 Economic Analysis for Managers
Bus Mgmt 711 Competitive Operations Strategy
Bus Mgmt 712 Strategic Management*
* Integrating course
Level I courses: BusMgmt-704, BusMgmt-709 and BusMgmt-710.
Level II courses: BusMgmt-705 and BusMgmt-711. In order to register for Level II courses, you must successfully complete all Level I courses.
BusMgmt-712 Strategic Management is the program capstone course. All courses in Level I and Level II must be successfully completed prior to enrolling in BusMgmt-712.

Electives

Students in the MBA program have two options for completion of elective credits. They may choose a designated concentration, completion of which will appear on their transcript. This route will require the completion of 15 elective credits, increasing the total number of degree credits to 39-42. The second route is to complete 12 elective credits from an approved list of tracks or courses. The second route requires a total of 36-39 degree credits. See www.uwm.edu/business for additional details.

Thesis
Not required.

Comprehensive Examination
Not required.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Executive MBA Program

Admission
Applicants for the Executive MBA Program must meet Graduate School requirements and additional program standards as specified below:

- Eight or more years of management experience and nomination of the employing organizations.
- Applicants are reviewed by the Master's Program Committee of the School of Business Administration. The admission recommendations are based upon:
    - Academic achievement and ability to do intensive graduate-level work
    - Nature of managerial experience
    - Contribution to the varied skills of the class
    - Ability and willingness of the individual and the employer to make a two-year commitment to the program.
- Proof of competency in the four foundation requirement areas of financial accounting, macroeconomics, mathematics review, and team building and business communications through coursework, or through examinations as approved by the Master's Program faculty committee. Students are also assumed to have basic proficiency in the use of word processing, spreadsheet, presentation, and Web-browsing software.

Major Professor as Advisor
The student in the Executive MBA Program is not assigned an advisor or major professor. Questions about the student's program of study, courses or regulations should be directed to Graduates Program Services, BUS N251, (414) 229-5403.

Credits and Courses
Students admitted to the Executive MBA Program will take the following sequence of courses.

Required Courses - 40 credits
Bus Mgmt 704 Accounting Analysis and Control
Bus Mgmt 705 Corporate Finance
Bus Mgmt 707 Information Technology for Competitive Advantage
Bus Mgmt 708 Marketing Strategy: Concepts and Practice
Bus Mgmt 709 Data Analysis for Management Applications
Bus Mgmt 711 Competitive Operations Strategy
Bus Mgmt 712 Strategic Management
Bus Mgmt 714 Managing People and the Role of General Managers
Bus Mgmt 716 International Business Management & Residence
Bus Adm 732 Transforming Organizations
Bus Adm 752 Corporate Economics
Bus Adm 737 Managerial Decisions and Negotiations
Bus Adm 794 Enterprise Integration: (four 1-cr modules, e.g., Virtual Teams, Legal Issues, etc.)

Thesis
Not required.

Comprehensive Examination
Not required.

Master of Science in Management

Admission
An applicant must meet Graduate School requirements plus the following program requirements to be considered for admission:

- A bachelor's degree from an accredited college or university.
- Submission of score on the Graduate Management Admission Test (GMAT).
- Review by the Master's Program Committee to assess academic achievement and ability to do intensive graduate level work.

Applicants admitted to the MS program may be required to complete management foundation courses. Individual areas of concentration require different foundation courses. (See School of Business Administration MBS/MS brochure and the School of Business Administration web site for details www.uwm.edu/business.) Foundation courses will be waived if students have completed equivalent undergraduate courses. Credits earned in these courses do not count toward the degree.

Students select the area of concentration most suited to their educational goals. The areas of concentration in the program are: accounting (first professional degree-open only for students with non-accounting majors at baccalaureate level); professional accounting (program open to students who have completed an undergraduate degree in accounting); change management; eBusiness; engineering management; finance analysis; health care management; international business; management information systems; marketing; manufacturing innovation and enterprise management; and taxation.

Major Professor as Advisor
The student in the MS program must choose a major professor during the first ten weeks of the student's first semester of graduate enrollment to advise and supervise the student's studies. A listing of faculty by area of interest is sent to each MS student to aid the student's selection of major professor. This list is also available in the Graduate Programs Services office, BUS N251.

The major professor, in consultation with the student, reviews the student's academic background and career goals and designs an appropriate program of study consistent with degree requirements. In developing a program of study for a stu-

dent who has no undergraduate background in business administration, care is taken to ensure a basic exposure to different aspects of the management field as well as an in-depth preparation in the chosen field of specialization.

Credits and Courses
The minimum degree requirement for the Management degree concentrations varies from 30-34 graduate credits. In the 30-credit concentrations, at least 18 credits must be taken in the School of Business Administration.

Electives provide distinction to each individual program. Through proper selection and packaging, each student can design a program to meet individual educational objectives while maintaining a high degree of academic strength. These courses may be selected from the many available in the School of Business Administration, or from among those offered in graduate programs of other UWM departments.

The application of methodological techniques and area studies are brought together in a thesis, a variable 2-6 credit management research project, or a designated integrating course. The urban location and strong ties with the business sector provide numerous opportunities for application of theoretical developments to ongoing operations or projects.

The distribution of coursework required in different areas of concentration is as follows:

Accounting - 30 Credits

Bus Adm 722 Advanced Financial Accounting Theory
Bus Adm 724 Business Combinations and Governmental Accounting
Bus Adm 725 Strategic Cost Management I
Bus Adm 726 Strategic Cost Management II
Bus Adm 727 Accounting Information Systems
Bus Adm 728 Auditing Theory and Applications
Bus Adm 753 Advanced Business Law
Bus Adm 405 Income Tax Accounting I
Bus Adm 406 Income Tax Accounting II
Bus Adm 428 Governmental and Nonprofit Accounting

Professional Accounting - 30-33 Credits

Core Courses - 18-21 credits
Bus Adm 406 Income Tax Accounting II*
Bus Adm 726 Strategic Cost Management II*
Bus Adm 753 Advanced Business Law*
Bus Adm 841 Financial Statement Analysis and Financial Instruments
Bus Adm 842 Governmental and Nonprofit Accounting*
Bus Adm 843 International Accounting Theory and Practice
Bus Adm 844 Auditing: Professional Standards and Practices
*406, 726, 753, and 842 are required if equivalent courses have not been completed. If advanced standing is granted, nine credits of these 12 possible credits must be replaced by accounting electives.
Accounting Elective(s) - 3 credits
Bus Adm 820 Tax Research, Practice & Procedure
Bus Adm 845 Strategic Planning and Control Systems
Bus Adm 846 Accounting Research Methods
Bus Adm 847 Topics in Accounting Theory
Allied Specialty - 6 credits
At least six credits required from selected courses in one of the following areas: Management Information Systems, Finance, Management, Manufacturing Innovation and Enterprise Management, Marketing, or Health Care. See www.uwm.edu/business for additional details.
Approved Electives - 3 credits
Any course listed in the allied specialties, or three modules of Bus Adm 794 Enterprise Integration (1 credit each).

Change Management - 30 credits

Core Courses - 9 credits
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Adm 733 Organizational Development
Bus Adm 738 Human Resource Management
Elective Courses - 18 credits
Bus Adm 441 Diversity in Organizations
Bus Adm 734 Managing Technological Innovation
Bus Adm 737 Managerial Decisions and Negotiations
Bus Adm 796 Competition and Strategy
Bus Mgmt 723 Managing and Negotiating Across Cultures
Bus Adm 795 Seminar-in-Management: Compensation Management
Bus Adm 795 Seminar-in-Management: Training and Development in Organizations
Bus Adm 795 Seminar-in-Management: Staffing Human Resources
Bus Mgmt 709 Data Analysis for Management Applications
Bus Mgmt 712 Strategic Management
Bus Mgmt 715 Leadership, Team Building, and Effective Management
Bus Mgmt 719 International Human Resource Management
Up to 9 credits of electives may be taken outside the School of Business Administration. Suitable courses are offered by Administrative Leadership, Psychology, Sociology, and other departments.
Management Research Project/Thesis (Bus Adm 899) - 3 credits

eBusiness - 31 Credits

Core Courses - 25 credits
Bus Adm 890 Introduction to Electronic Business
Bus Adm 891 Development of Electronic Business Applications
Bus Adm 892 Analysis & Design of Electronic Business Systems
Bus Adm 893 Infrastructure for Electronic Business
Bus Adm 894 Internet Marketing
Bus Adm 895 Strategic Marketing Issues in eBusiness
Bus Adm 896 Logistics and Supply Chain for Electronic Business
Bus Adm 897 eBusiness Practicum (4 cr)*
* Integrating course
Approved Electives - 6 credits
See www.uwm.edu/business for additional details.

Engineering Management - 30 Credits

All of the following courses are required for students in the cohort program. Students in the stan-

dard program may substitute up to six credits of other courses with prior approval of the program committee.
Bus Mgmt 715 Leadership, Team Building, and Effective Management
Ind Eng 716 Engineering Statistical Analysis
Bus Adm 758 Engineering Economics and Management
Bus Adm 788 Engineering Project Management
Bus Adm 719 Management of Quality
EAS 741 Legal Issues in Engineering Management
Ind Eng 717 Operations Research in Engineering Management
Bus Adm 734 Managing Technological Innovation
Bus Mgmt 717 Operations and Supply Chain Management
Ind Eng 705 Engineering Simulation Project*
* Integrating course

Finance Analysis - 33 Credits

Core Courses - 21 credits
Bus Adm 721Financial Accounting Theory
Bus Adm 751 Analysis of U.S. Business Environment
Bus Adm 771 Investments
Bus Adm 775 Financial Strategy*
Bus Mgmt 705 Corporate Finance
Bus Mgmt 709 Data Analysis for Management Applications
or
Bus Adm 754 Statistical Analysis
Bus Mgmt 710 Economic Analysis for Managers
* Integrating course

Elective Courses - 12 credits from the following:
Bus Adm 713 Business Forecasting Methods
Bus Adm 772 Portfolio Management
Bus Adm 773 Options and Futures
Bus Adm 774 Global Financial Management
Bus Adm 777 Advanced Corporate Finance
Bus Adm 778 Financial Institutions and Markets
Bus Adm 779 Fixed Income Securities
Bus Adm 795 Seminar in Management - Finance Topic

Health Care Management - 33 Credits

Core Courses - 24 Credits
Bus Adm 755 Health Care Administration
Bus Adm 756 Health Care Delivery Systems
Bus Adm 757 Managed Care and Integrated Health Networks
Bus Adm 766 Marketing for Non-Profit Organizations
Bus Adm 795 Seminar-in-Management: Health Care Accounting and Financial Management
Bus Adm 795 Seminar-in-Management: Health Law and Ethics
Bus Mgmt 707 Information Technology for Competitive Advantage
Bus Mgmt 720 Strategic Management in Health Care Organizations*
* Integrating course

Elective Courses - 9 credits from the following:
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Mgmt 709 Data Analysis for Management Applications
Bus Adm 738 Human Resource Management
Bus Mgmt 715 Leadership, Team Building, and Effective Management
Bus Adm 798 Strategic Planning in Public and Nonprofit Sectors
Bus Adm 899 Management Research Project/Thesis
Bus Mgmt 711 Competitive Operations Strategy
Bus Mgmt 721 Fundraising and Development for Nonprofit Organizations
Health Care Administration 700 Health Care Informatics
Health Care Administration 420 Advanced Systems Thinking for Health Care Leaders
Nursing 715 Health Attitudes and Practice
Nursing 727 Epidemiology
Nursing 750 Evaluation of the Quality of Health Care
Urban Studies 639 Health Care Organization and the Low Income Consumer
Urban Studies 840 Community Health Planning
Urban Studies 841 Health Policy in Urban Society

International Business - 33 credits

Core Courses - 24 credits
Bus Adm 800 Multinational Business Operations
Bus Adm 801 International Accounting and Taxation
Bus Adm 806 International Marketing
Bus Adm 774 Global Financial Management
Bus Adm 809 International Business Strategy*
Bus Mgmt 705 Corporate Finance
Bus Mgmt 709 Data Analysis for Management Applications
Bus Mgmt 710 Economic Analysis for Managers
* Integrating course

Elective Courses - 9 credits
From courses listed below or those outside the Business School with prior approval.
Bus Adm 497 Study Abroad
Bus Adm 751 Analysis of U.S. Business Environment
Bus Adm 795 Seminar in Management (International Topics)
Bus Adm 802 Legal Dimensions of International Business
Bus Adm 808 International Business Negotiations
Bus Adm 899 Management Research Project/Thesis
Bus Mgmt 719 International Human Resource Management
Bus Mgmt 722 Global Information Technology Management
Bus Mgmt 723 Managing and Negotiating Across Cultures

Management Information Systems - 30 Credits

Core Courses - 21 credits
Bus Adm 740 Management Information Systems Concepts and Languages
Bus Adm 744 Management of Information Systems
Bus Adm 747 Systems Analysis and Design
Bus Adm 748 Information Technology Project Management*
Bus Adm 749 Data Management Systems
Bus Adm 812 Emerging Information Technologies
Bus Adm 813 Object-Oriented and Visual Paradigms
* Integrating course

Elective Courses - 9 credits from the following:
Bus Adm 741 Decision Support Systems and Groupware
Bus Adm 746 Topics in Management Information Systems
Bus Adm 811 Business Reengineering Through Information Technology
Bus Adm 814 Intelligent Systems for Business
Bus Adm 819 Management Information Systems Internship
Bus Adm 890 Introduction to Electronic Business
Bus Adm 891 Development of Electronic Business Applications
Bus Adm 893 Infrastructure for Electronic Business
Bus Adm 899 Management Research Project/Thesis

Manufacturing Innovation and Enterprise Management - 30 Credits

Core Courses - 24 credits
Bus Adm 710 Management Science
Bus Adm 781 Enterprise Resource Planning and Control
Bus Adm 782 Manufacturing Technology and Simulation
Bus Adm 783 Supply Chain Management
Bus Adm 784 Process Breakthrough Management
Bus Adm 785 Project Management and Innovative Operations*
Bus Mgmt 709 Data Analysis for Management Applications
OR
Bus Adm 754 Statistical Analysis
Bus Mgmt 711 Competitive Operations Strategy
* Integrating course

Elective Courses - 6 credits
From the following:
Bus Adm 713 Business Forecasting Methods
Bus Adm 760 Marketing of Industrial and Technological Products
Bus Adm 787 Special Topics in Operations
Bus Adm 896 Logistics and Supply Chain in eBusiness
Bus Adm 899 Management Research Project
Bus Mgmt 710 Economic Analysis for Managers
Ind Eng 751 Flexible Manufacturing Systems

Marketing - 30 Credits

Core Courses - 15 Credits
Bus Adm 762 Marketing Research
Bus Adm 764 Consumer Behavior
Bus Adm 765 Strategic Product and Brand Management*
Bus Mgmt 708 Marketing Strategy: Concepts and Practice
Bus Mgmt 709 Data Analysis for Management Applications

* Integrating course.

Elective Courses - 15 credits from the following:
Bus Adm 766 Marketing for Non-Profit Organizations
Bus Adm 768 Marketing Management
Bus Adm 795 Management Seminar: Marketing Topics
Bus Adm 806 International Marketing
Bus Adm 894 Internet Marketing
Bus Adm 895 Strategic Marketing Issues in eBusiness
Bus Adm 899 Management Research Thesis/Project

Taxation - 30 Credits

Core Courses - 21-24 credits
Bus Adm 406 Income Tax Accounting II
Bus Adm 820 Tax Research, Practice and Procedure
Bus Adm 823 Corporate Income Taxation
Bus Adm 826 Tax Planning for Individuals
Bus Adm 827 Taxes and Business Strategy
Bus Adm 828 Taxation of Partnerships, S Corporations, and LLCs
Bus Adm 831 Multistate Income Taxation
Bus Adm 834 International Taxation

Elective Courses - 6-9 credits from the following:
Bus Adm 825 Estate Planning
Bus Adm 829 Executive Compensation and Benefits
Bus Adm 832 Property Taxation
Bus Adm 837 Sales and Use Taxation
Bus Adm 838 Managing State and Local Audits
Bus Adm 839 Topics in Taxation

MS/MBA Program

This coordinated degree program combines the degree requirements of the MBA and MS-MIS concentration. The combination of MBA core courses and MIS courses (including some eBusiness courses) prepares graduates for managerial positions in IT organizations or for IT-related functions within organizations. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree.

Courses
From the MBA program (24 credits):
Bus Mgmt 704 Accounting Analysis and Control
Bus Mgmt 705 Corporate Finance
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Mgmt 708 Marketing Strategy: Concepts and Practice
Bus Mgmt 709 Data Analysis for Management Applications
Bus Mgmt 710 Economic Analysis for Managers
Bus Mgmt 711 Competitive Operations Strategy
Bus Mgmt 712 Strategic Management
From the MS-MIS area of concentration (21 credits):
Bus Adm 740 MIS Concepts and Languages
Bus Adm 744 Management of Information Systems
Bus Adm 747 Systems Analysis and Design
Bus Adm 748 Information Technology Project Management
Bus Adm 749 Data Management Systems
Bus Adm 812 Emerging Information Systems
Bus Adm 813 Object-Oriented and Visual Paradigms

Elective Courses (9 credits)
Please refer to www.uwm.edu/Business/programs for a comprehensive listing of elective courses.

Total degree credits required:
54 credits

The Management Research Project/Thesis
The Management Research Project/Thesis is a variable 2-6 credit management research project.

Comprehensive Examination
Students must pass a final oral examination if they choose a 4-6-credit management research project or thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment. In areas of concentration in which the total number of degree credits required exceeds 30, the student must complete all degree requirements within seven years of initial enrollment.

Master of Science in Nursing/Master of Business Administration

The University of Wisconsin-Milwaukee College of Nursing and the School of Business Administration have joined together to collaboratively offer a program designed to provide a combined nursing and business curriculum to strengthen the graduate's performance as a leader and manager in nursing and health care administration.

Admission
Students are admitted to both the University of Wisconsin-Milwaukee graduate programs in nursing and business administration. The admission requirements are consistent with those specified by the UWM Graduate School, College of Nursing and School of Business Administration. Students may choose to complete either the GMAT or GRE and must have at least two years practice in a health care setting. Three letters of reference are required including one from a former faculty and one from a health care employer. Students must also complete foundational business courses either prior to admission to the program or during completion of the degree program (BusMgmt 700 Building Business Interfacing Skills; BusMgmt 701 Basic Quantitative Methods for Business, 2 cr*; BusMgmt 702 Accounting, Finance, and Economics, 3 cr; BusMgmt 703 Marketing, Operations, and Management, 3 cr.).
*Because completion of an undergraduate upper division statistics course is required prior to admission to the MS-Nursing/MBA program, students will be waived from BusMgmt 701.

Credit and Courses
Students accepted into the MS/MBA program complete the following courses

NURSING: 25 CREDITS
NURS 725 Nursing Research and Knowledge Generation, 3cr
NURS 735 Theoretical Foundations of Advanced Nursing Practice, 3 cr
NURS 784 Advanced Nursing Practice Interventions, 3 cr
NURS 750 Evaluation of the Quality of Health Care, 3 cr
NURS 770 Nursing Administration, 3 cr
NURS 771 Nursing Administration Practicum, 3 cr
NURS 727 Epidemiology, 3 cr
NURS 729 Health Care Systems, 3 cr
NURS 991 Research and Thesis (Clinical Project), 1 cr
BUSINESS: 39 CREDITS - BusMgmt
Core Courses
BusMgmt 704 Accounting Analysis and Control, 3 cr
BusMgmt 705 Corporate Finance, 3 cr
BusMgmt 706 Managing in a Dynamic Environment, 3 cr
BusMgmt 707 Information Technology for Competitive Advantage, 3 cr
BusMgmt 708 Marketing Strategy: Concepts and Practice, 3 cr
BusMgmt 709 Data Analysis for Management Applications, 3 cr
BusMgmt 710 Economic Analysis for Managers, 3 cr
BusMgmt 711 Competitive Operations Strategy, 3 cr
BusMgmt 720 Strategic Management in Health Care Organizations OR
BusMgmt 712 Strategic Management**, 3 cr
**BusMgmt 720 or Bus Mgmt 712 is the designated integrating course for the coordinated degree program.
6 credit hours of electives, 6 cr
6 credit hours from the College of Nursing that will apply to both degrees
NURS 727 Epidemiology, 3 cr
NURS 729 Health Care Systems, 3 cr
TOTAL PROGRAM
For the coordinated degree program, the MS in Nursing is a 25 credit hour degree program and the MBA is a 39 credit hour degree program. Students will complete 58 credit hours, 6 of these credit hours are used to meet requirements for both degrees. In addition, MBA foundation coursework (for those entering the program without previous equivalent coursework) consists of four courses - BusMgmt 700, BusMgmt 701, BusMgmt 702, and BusMgmt 703. BusMgmt 701 will be automatically waived based on the Nursing upper level mathematics/statistics entry requirement. A student not completing the requirements for the coordinated degree program would need to complete all requirements for the individual program - MS in Nursing or MBA - in order to receive a degree.

Comprehensive Clinical Project
The student will complete a comprehensive clinical project.

Time Limit
Students in the coordinated MS/MBA degree program must complete all degree requirements within seven years of the first enrollment semester as a degree student.

Master of Human Resources and Labor Relations

The School of Business Administration and the College of Letters and Science offer and confer jointly the master's degree in Human Resources and Labor Relations (MHRLR).

Admission
An applicant must meet Graduate School requirements plus the following requirements to be considered for admission to the MHRLR program:

- Submission of GRE or GMAT scores and two letters of recommendation to the MHRLR program.
- Students admitted to the program will be expected to present at least three credits of prior work in microeconomics and fulfill prerequisite requirements in statistics for either Business 709 or Economics 310.
- Students who are deficient in the areas of microeconomics or statistics at the time of admission (see above) will be expected to satisfy deficiency requirements within three enrolled semesters. Deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

- Applicants are reviewed by the MHRLR admissions committee to assess academic achievements and the ability to do intensive graduate-level work.

Major Professor as Advisor
A student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The student will be assigned an advisor matched by area of professional interests from the Program Faculty by the MHRLR coordinating committee during or prior to the first 10 weeks of enrollment in the program.

The major professor, in consultation with the student, reviews the student's academic background and career goals and designs an appropriate program of study consistent with degree requirements. In developing a program of study for a student who has no undergraduate background in either human resources or labor relations, care is taken to ensure a balanced exposure to different aspects of the field as well as an in-depth preparation for the student's particular goals.

Credits and Courses
The Master of Human Resources and Labor Relations degree will be awarded upon completion of 36 credits of prescribed graduate study and appropriate prerequisite course work. The program offers a balance between liberal arts and business-based education, requiring that at least 15 credits be taken within the College of Letters and Science and at least 15 credits be taken within the School of Business Administration.

The degree requires completion of 18 credits in core courses that provide each student with a solid grounding in both labor relations and human resources while permitting some specialization according to student interests.

Core Courses: 18 Credits
Ind Rel 701 Industrial and Labor Relations
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Adm 738 Human Resources Management
Bus Adm 795 Special Topics in HRM (Staffing)
Econ 415 Economics of Employment Relations or Econ 753 Collective Bargaining
Ind Rel 712 Employment Law or Ind Rel 711 Labor Relations Law

If Econ 415 and Econ 753 are both taken, one of these may be used to help fulfill elective requirements. If Ind Rel 711 and Ind Rel 712 are both taken, one of these may be used to help fulfill elective requirements.

To ensure a well-rounded education, students are required to fulfill the remainder of the 15-credit requirement within the College of Letters and Science and within the School of Business Administration by selecting from a list of approved elective courses from within each organization. As part of these elective courses, students are required to take a statistics course, either Bus Adm 709 or Econ 310 (but not both). A student may, with advisor approval, fulfill the 36-credit requirement by taking up to 6 credits from the approved list of alternative electives in other schools such as the College of Nursing, the School of Education, and the School of Social Welfare. No student will be permitted to apply more than nine credits taken at the U/G level toward meeting MHRLR degree requirements.

Elective Courses:
Please refer to www.uwm.edu/Dept/MHRLR for a comprehensive listing of elective courses.

Students without prior experience in the field are encouraged to take advantage of the program's extensive contacts in the business and labor communities by undertaking one or more internships as either Bus Adm 899 or Ind Rel 921. Students may also utilize the wide range of faculty expertise available within the program for a major research paper on a human resources or labor relations topic. These papers, under the direction of a faculty advisor, are taken as either Ind Rel 801 or Bus Adm 899. A student may graduate with honors from the MHRLR program by maintaining a 3.5 grade-point average within the program, and by writing a 3-credit major research paper (under Bus Adm 899 or Ind Rel 801).

See the Master of Human Resources and Labor Relations section of the Bulletin for more information.

Master of Public Administration

The Master of Public Administration program is designed to prepare students for leadership and management roles in local, state, and national government. Jointly offered by the School of Business Administration and the College of Letters and Science, this professional degree program includes applied work in several related disciplines: Business, Political Science, Urban Planning, and Economics. The conceptual and analytical skills developed through this curriculum are critical to the effective management of public agencies and programs.

COURSES

Core Courses (21 credits)
BusMgmt 709 Data Analysis for Management Applications
Bus Adm 738 Human Resource Management
PolSci/Urb Plan 630 Budgeting and Finance in the Public Sector
Pol Sci 763 Scope and Dynamics of Public Administration
Pol Sci 769 Analyzing and Evaluating Public Policies and Programs
Pol Sci 921 Government/Nonprofit Administrative Leadership
One seminar in organizational management and leadership selected from the following list:
Bus Adm 443 Special Topics in Human Resources Management
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Adm 737 Managerial Decisions and Negotiations
Concentration and Elective Courses (12-15 credits)
Courses in the concentrations and elective course information can be found at the following Web site: www.uwm.edu/Dept/MPA
Capstone Seminar (3 credits)
Pol Sci 959 Capstone Seminar in Public Administration

Doctor of Philosophy in Management Science

Admission
Applicants must meet Graduate School requirements plus the following program requirements to be considered for admission to the program:

- A bachelor's degree from an accredited college or university. Almost all applicants admitted, however, are master's degree holders.

- Substantial evidence of scholarly potential and commitment.
- Submission of score on either the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE).
- Two letters of recommendation in support of the candidate's competence to do doctoral work.
- A written statement from the applicant stating reasons for pursuing PhD level study and an indication of the major field to be studied.

Applicants are expected to have adequate preparation at the undergraduate or graduate level equivalent to one semester each of coursework in calculus, statistics, and linear algebra. Applicants who do not have the above background must complete equivalent courses. Specific courses from the School of Business or from departments outside the School will be suggested to satisfy preparation in these areas. These courses do not count toward credit requirements for the degree.

Reapplication
A student who has received a master's degree in Business Administration from the University of Wisconsin-Milwaukee must formally reapply for admission to the Graduate School before beginning studies toward the PhD degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. Within the first semester, the student arranges for assignment to an advisor within the student's specialization.

Course of Study
Minimum degree requirement is 54 credits beyond the bachelor's degree, of which a minimum of 34 credits must be earned in residence at UWM beyond the master's level.

The student plans an individual program of studies in consultation with the major professor. The program has no formal language requirement but the student is responsible for familiarity with published literature in the area of the student's research. All students will also be required to complete an "Orientation to Teaching and Research" course.

The ***first stage*** of the student's program includes general preparation in a common core of knowledge. Students will be required to validate exposure to functional business areas: accounting, finance, information systems, marketing, and management. Method of validation is to be decided by the advisor and faculty from the major field area.

The ***second stage*** of the program consists of a required research methods component to be satisfied by a minimum of 12 credits from a recommended list of research methods courses.

The ***third stage*** of the program consists of coursework and research in the major and minor fields of study as specified in the student's program of studies. Coursework must include a minimum of 12 credits in the student's major field and a minimum of 9 credits in the student's minor field of study.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examinations
The student must pass written doctoral preliminary examinations in the major field of study. Minor field requirements include completing approved coursework with a specified grade point average or passing a written examination as specified by the appropriate department. A student is admitted as a candidate for the PhD degree after successful completion of the doctoral preliminary examinations.

Dissertation
The candidate must write a dissertation that demonstrates ability to formulate a research topic and pursue independent and original investigation.

Dissertation Defense
A formal oral defense of the dissertation by the student and certification of the dissertation by the dissertation committee are necessary steps to complete the degree requirements.

Time Limit
All degree requirements must be completed within 10 years from the date of initial enrollment in the doctoral program.

Additional information on Graduate School PhD requirements is in the Doctoral Student and Advisor Manual.

Certificate in State and Local Taxation

The Certificate program in State and Local Taxation is designed to provide students with the knowledge and skills needed to successfully pursue or advance careers within tax departments of corporations, CPA firms, law firms, and government agencies.

Students wishing to earn a Certificate in State and Local Taxation must be admitted as a non-degree graduate student in the School of Business Administration at the University of Wisconsin-Milwaukee or enrolled in a master's degree program in the School of Business Administration.

Students wishing to earn the Certificate must complete the required 12 graduate credit hours with an overall GPA of 3.0 or better. The following courses are required:

Bus Adm 831 Multistate Income Taxation
Bus Adm 832 Property Taxation
Bus Adm 837 Sales and Use Taxation
Bus Adm 838 Managing State and Local Tax Audits
Students who wish to earn the certificate in State and Local Taxation and are not enrolled in the Business Administration graduate degree program at UWM can be admitted as non-degree graduate students in Business provided they meet the following requirements:

- A bachelor's or higher degree with an overall GPA of 2.75 or better.
- Background including one or more of the following: a bachelor's or master's degree in accounting, a master's degree in taxation, a law degree, a CPA certification, and relevant work experience in the accounting or tax area.

Admission as a non-degree graduate student in Business Administration does not constitute admission to a master's degree program in Business Administration.

A maximum of one three-credit course from another institution would be considered for transfer to the certificate.

There is a time limit of four years from initial enrollment for completion of the certificate.

Students wishing to obtain the Certificate in State and Local Taxation must declare

their intention by applying to the School of Business Graduate Program Services office, BUS S251. After completing the program requirements, a Certificate in State and Local Taxation will be awarded by the School of Business Administration.

Graduate Certificate In Nonprofit Management

The Graduate Certificate in Nonprofit Management is designed to provide students with the knowledge and skills needed to successfully pursue or advance careers within nonprofit sector organizations.

Students wishing to earn a Graduate Certificate in Nonprofit Management must complete the required 15 graduate credit hours with an overall GPA of 3.00 or better. No student may complete all 15 credits within a single school or college. The curriculum consists of the following five courses:

Required Courses (12 credits)
One of the following three courses:
BusMgmt 718 - Concepts and Practice of Nonprofit Management (3 credits)
Poli Sci 789 - Theory and Role of Nonprofit Organizations (3 credits)
Sociol/Pol Sci/Urb Std 704 - Seminar in Nonprofit Organizations (3 credits)

Both of the following two courses:
BusMgmt 724 - Accounting for Nonprofit Organizations (3 credits)
BusMgmt 725 - Governance of Nonprofit Organizations (3 credits)

One of the following three courses:
BusMgmt 721 - Fundraising and Development for Nonprofit Organizations (3 credits)
Bus Adm 738 - Human Resource Management (3 credits)
Pol Sci 705 - Professionals and Volunteers in Nonprofit Organizations (3 credits)

Elective Course (3 credits)
One graduate-level course selected from within the School of Business Administration, Master of Public Administration, or other UWM schools and colleges with the approval of the Program Director (3 credits)

Students wishing to pursue the Certificate in Nonprofit Management must submit an application to the Program before completion of six credits in the certificate sequence. There is a time limit of three years from initial enrollment for completion of the certificate program.

Those students who wish to earn the Graduate Certificate in Nonprofit Management can be admitted for the certificate program as non-degree graduate students provided they possess a bachelor's or higher degree with a minimum overall undergraduate grade point average of 2.75. Admission as a non-degree graduate student does not constitute admission to a master's degree program. Students may also pursue the certificate while enrolled in another graduate program or as a post-graduate student.

Courses

Business Administration (BUS ADM)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

405 Income Tax Accounting I. 3 cr. U/G. Introduction to tax issues inherent in business and financial transactions, with an emphasis on the federal individual and corporate income tax. Prereq: jr st (exc Pre-Bus Adm sr) & Bus Adm 301(205)(P); or grad st & Bus Adm 721(P)

406 Income Tax Accounting II. 3 cr. U/G. Application of framework developed in Income Tax Accounting I (Bus Adm 405) to more thoroughly analyze the taxation of business entities. Prereq: jr st (exc Pre-Bus Adm sr); Bus Adm 405(P)

408 (308) Accounting Information Systems. 3 cr. U/G. Introduction to accounting information systems and related technology, principles of accounting systems design, internal controls and coverage of commercial accounting software packages. Prereq: jr st; Bus Adm 301(205)(P) & 230(P); or grad st

441 Diversity in Organizations. 3 cr. U/G. Conceptual and experiential understanding of cultural values and practices among diverse groups in organizations. Addresses institutional and personal discrimination, stereotyping and prejudice. Counts as repeat of Bus Adm 443 with similar title. Prereq: jr st, admis to Bus Adm major, & Bus Adm 330(C); or grad st

442 Industrial Psychology. 3 cr. U/G. Application of psychological principles to industrial problems. Prereq: Bus Adm 330(P) & Psych 101(P)

443 Special Topics in Human Resources Management: (Subtitled). 3 cr. U/G. Selected topics in human resources management. Specific topics will appear in the Timetable whenever the course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st & admis to Bus Adm major (excluding Pre-Business Administration srs & Univ Special Students with no undergraduate degree), & Bus Adm 330(P); or grad st

464 Management of Promotion. 3 cr. U/G. Theory and concepts in developing and implementing communications strategies. Analysis of psychological, social and economic variables affecting promotion decisions. Prereq: jr st & admis to Bus Adm major (excluding pre-Bus Adm srs & University Special Students with no undergrad degree), & Bus Adm 461(P); or grad st

481 Real Estate Finance. 3 cr. U/G. Mechanism of real estate finance, sources of funds, loan contracts, principles of mortgage risk analysis, and the role of government agencies; real estate investment analysis. Prereq: jr st; Bus Adm 380(P)

482 Valuation of Real Estate. 3 cr. U/G. Economic theories of value applied to real estate; valuation as a guide to business decisions; real estate market which affects value; valuation methods, analysis of evidence of value; appraising residential and income properties. Prereq: jr st; Bus Adm 380(P)

483 Property Development and Management. 3 cr. U/G. Analysis of real estate development; consideration of site selections, market analysis, financing, design, and construction in connection with subdividing residential community development and shopping centers. Prereq: jr st; Bus Adm 481(P) or grad st.

497 Study Abroad: (Subtitled). 1-12 cr. U/G. - May be retaken with change in topic. Prereq: jr st; acceptance for Study Abroad Prog

700 Building Business Interfacing Skills. 2 cr. G. How organizations communicate to external stakeholders and how internal norms for communication assist businesses in meeting strategic objectives. Emphasizes fast-paced environments in modern organizations. Counts as repeat of BusMgmt 700. Prereq: grad st

701 Business Mathematics. 2 cr. G. Mathematical concepts essential to business. Exponents, polynomial functions, exponential and logarithmic functions, solution of linear systems, basic differential and integral calculus; emphasizes application to business problems. Counts as repeat of BusMgmt 701. Prereq: grad st

702 Business Statistics. 2 cr. G. Statistical concepts essential in business. Descriptive statistics, basic probability, common sampling distributions, statistical inference; application to business problems emphasized. Counts as repeat of BusMgmt 701. Prereq: grad st

703 Financial Accounting. 3 cr. G. Covers financial accounting model underlying financial statements, accounting standard setting, role of accounting in capital formation, interpretation and analysis of financial statements. Counts as repeat of BusMgmt 702. Prereq: grad st

710 Applied Management Science. 3 cr. G. Basic management science models applied to various aspects of business management; emphasis on problem formulation and modeling, computer algorithms and optimization software. Prereq: grad st; BusMgmt 709

713 Business Forecasting Methods. 3 cr. G. Overview and use of modern forecasting methods in support of managerial strategic planning, financial, and operational analysis of a dynamic global business environment. Prereq: grad st; 217-709(P) or 216-754(P)

714 Multivariate Techniques in Management Research. 2 cr. G. Multivariate data collection and dimension reduction problems in management studies; experimental design and sampling methods; multiple comparision; principal component analysis; factor analysis; multivariate statistical package. Prereq: grad st; Bus Adm 709(P)

719 Management of Quality. 3 cr. G. Planning, managing, measurement, and improvement of quality. Topics include customer satisfaction and marketing, quality management systems, and statistical methods for design and improvement. Prereq: grad st; 217-709(P) or 490-767(P)

721 Financial Accounting Theory. 3 cr. G. The principles of external reporting are integrated with approaches to problem solving. Emphasis is placed upon recent developments of the accounting profession. Not open to students who have cr in Bus Adm 203(ER). Prereq: grad st; Bus Adm 703(P)

722 Advanced Financial Accounting Theory. 3 cr. G. Specialized topics in external financial reporting are studied. A critical appraisal is made of current and emerging accounting theory. Prereq: grad st; Bus Adm 721(P)

724 Business Combinations and International Accounting. 3 cr. G. Planning and accounting for business combinations including international consolidations. Basic issues in international transactions and investments. Prereq: grad st; Bus Adm 721(P)

725 Strategic Cost Management I. 3 cr. G. Cost data accumulation and its utilization by management. Emphasis on job order and process costing, standard costing, cost-volume-profit analysis, budgets, capital expenditures. Cannot be taken by students receiving cr for Bus Adm 404. Prereq: grad st; Bus Adm 703(P)

726 Strategic Cost Management II. 3 cr. G. Uses quantitative and behavioral models to aid management planning and control. Emphasizes analysis techniques to aid in the solution of accounting oriented management problems. Not open to students who have cr in Bus Adm 426(ER). Prereq: grad st; Bus Adm 725(P)

728 Auditing Theory and Applications. 3 cr. G. A study of auditing standards, methodology, and professional and reporting responsibilities. Emphasis is on underlying concepts and theory. Prereq: grad st; Bus Adm 727(P)

732 Transforming Organizations. 3 cr. G. Combines individual and organizational-level analysis to provide insights into changing organizations. Topics include innovation, leadership, corporate cultures, and changing management from a broad view. Prereq: grad st; 217-714(P)

733 Organizational Development. 3 cr. G. Problems of implementing change. Roles of external and internal consultants. Determining needs and measuring relevant variables. Prereq: grad st; BusMgmt 706(P) or cons instr

734 Managing Technological Innovation. 3 cr. G. Organizational and strategic issues involved in managing technologies and innovation processes. Emphasizes professional enployees, creativity, project teams, leadership, interdepartmental relations, technological evolution, and R&D strategies. Prereq: grad st

736 Topics in Management Studies: (Subtitled). 2 cr. G. The topics are limited to the areas of management studies and their business applications. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated wtih change in topic to max of 4 cr. Prereq: grad st; bus adm 731(p) & cons instr

737 Managerial Decisions and Negotiations. 3 cr. G. Provides frameworks for making effective decisions and negotiating viable solutions. Improves performance in these key managerial roles by engaging in case study, exercises, and industry projects. Prereq: grad st; BusMgmt 706(P)

738 Human Resource Management. 3 cr. G. Strategies for attracting, retaining and developing a diverse and international workforce. Topics include employment law, diversity, staffing, training, performance management, compensation and current issues. Prereq: grad st; BusMgmt 706(P)

740 Management Information Systems Concepts and Languages. 3 cr. G. Introduction to data organization, object-oriented design, construction and validation of application programs, development methodologies and control structures, illustrate with object programming language. Prereq: grad st

741 Decision Support Systems and Groupware. 3 cr. G. Individual and group decision making in business. Decision processes, modeling, and data warehousing for effective support and web-based use. Technology and processes for group and distributed decisions. Prereq: grad st

742 Simulation Theory and Practice. 3 cr. G. Focus on simulation as a practical problem-solving tool. Students learn a simulation language and use the language to solve a management problem of their choosing. Prereq: grad st; Bus Adm 740(P) or cons instr

744 Management of Information Systems. 3 cr. G. Focus on the management, organizational, operations/ethical issues involved with information systems. Addresses possible approaches for effective enterprise-wide management of information system resources. Prereq: grad st; Bus Adm 747(P)

745 Managing Information Technology for Performance. 2 cr. G. Strategic and operational issues surrounding complex interactions of information technology, people and organizations. Emphasis on successful implementation of technology based on management models and practice. Prereq: grad st in mba-executive curriculum or cons instr

746 Topics in Management Information Systems: (Subtitled). 3 cr. G. Topics are limited to the areas in management information systems and business application. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. May be retaken with change in topic to max of 9 cr. Prereq: grad st

747 Systems Analysis and Design. 3 cr. G. Requirements definition, modeling, and specification of information systems. Object-oriented conceptual and logical design data management and distribution, user interface design. Prereq: grad st

748 Information Technology Project Management. 3 cr. G. Develop understanding of key knowledge areas, process groupings, and constraints of project management, project life-cycle, tools/techniques including wbs, metrics, earned value analysis, network diagrams. Prereq: grad st; Bus Adm 747(P)

749 Data Management Systems. 3 cr. G. Database modeling and design. Object oriented data modeling using uml. Logical and physical design considerations. Creating and loading databases. Data manipulation using sql. Manipulating databases from web. Prereq: grad st; Bus Adm 740 (P) & 747 (P)

751 Analysis of U.S. Business Environment. 3 cr. G. Analysis of inflation, business cycles, interest rate dynamics and term structure, federal reserve policy, tax policy, and economic growth. Prereq: grad st; Bus Adm 701(P) & 702(P)

752 Corporate Economics. 3 cr. G. Applied economic analysis of market structure, price discrimination, oligopoly, cartels, and collusion. The course integrates the psychology of price and behavioral economic issues in pricing. Prereq: grad st in mba-executive curric or cons instr

753 Advanced Business Law. 3 cr. G. Advanced legal concepts focusing on Uniform Commercial Code, bankruptcy and creditor protection, liability of bailees and common carriers, product liability, and real and personal property. Prereq: grad st; Bus Adm 391(P)

754 Statistical Analysis. 3 cr. G. Business applications of probability theory and statistical methods to managerial problems of prediction, inference and decision making under uncertainty. Prereq: grad st; Bus Adm 701(P) & 702(P)

755 (effective 01/24/2005) Health Care Administration and Delivery Systems. 3 cr. G. Covers administrative structures and processes in health care institutions, including managing clinicians and interorganizational relationships of U.S. and selected foreign health care providers. Prereq: grad st

755 Health Care Administration. 3 cr. G. Covers administrative structures and processes in health care institutions. Examines health care managers' opportunities and constraints in goal implementation in a dynamic health care environment. Prereq: grad st

756 Health Care Delivery Systems. 3 cr. G. Inter-organizational relationships of health care providers. Financing trends in medicare, medicaid, and private insurance. Managerial analysis of the economic and regulatory aspects of health care. Prereq: grad st

757 Managed Care and Integrated Health Networks. 3 cr. G. Examines concepts and management of capitated and vertically integrated health care organizations; utilization control, risk and quality assessment, benefit design, pricing, management of clinical professionals. Prereq: grad st; Bus Adm 755(P)

758 Engineering Economics and Management. 3 cr. G. Study of planning, analysis, and control tools that facilitate engineers' decision-making processes. Study of relationships between functional areas of business and decision-making processes of engineering. Prereq: grad st

760 Marketing of Industrial and Technological Products. 3 cr. G. Marketing of goods and services to business organizations, governments and institutions. Understanding organizational processes, problem solving skills with respect to business marketing and marketing channel relationships. Prereq: grad st

761 Seminar in Marketing: (Subtitled). 3 cr. G. Decision-making regarding product, price, channels of distribution, and promotion; focus on over-all marketing policies and program planning strategies. Specific topic and additional prerequisites may appear in the schedule of classes each semester. Prereq: grad st

762 (effective 01/24/2005) Information for Marketing Decisions. 3 cr. G. Understanding the market research process, obtaining and integrating relevant information into marketing decision-making processes. Listening to the voice of the customer, customer satisfaction measurement and technology utilization for database marketing. Prereq: grad st; BusMgmt 709(P)

762 (effective 05/23/2005) Marketing Research. 3 cr. G. Understanding the market research process, obtaining and integrating relevant information into marketing decision-making processes. Listening to the voice of the customer, customer satisfaction measurement and technology utilization for database marketing. Prereq: grad st; BusMgmt 709(P)

762 Information for Marketing Decisions. 3 cr. G. Understanding the market research process, obtaining and integrating relevant information into marketing decision-making processes. Listening to the voice of the customer, customer satisfaction measurement and technology utilization for database marketing. Prereq: grad st; BusMgmt 703(P) & 709(P)

764 Buyer Behavior and Marketing Communications. 3 cr. G. A multidisciplinary approach to understanding buyer behavior processes in the market place and their implications for the development

of marketing strategies, especially marketing communications. Prereq: grad st

765 Strategic Product and Brand Management. 3 cr. G. Customer-focused product development and management; the creation and management of brand equity. Technology-marketing interface and customer involvement in product innovation and strategy. Prereq: grad st

766 Marketing for Nonprofit Organizations. 3 cr. G. Explores ways in which non-business organizations such as hospitals, quasi-governmental agencies and educational institutions utilize marketing concepts and techniques in fulfilling their objectives. Prereq: grad st

767 Services and Relationship Marketing. 3 cr. G. Development and marketing of services within a changing and growing global marketplace. Includes service quality measurement and management, and the important role of relationship marketing. Prereq: grad st

768 Marketing Management. 3 cr. G. Study and application of the concepts, tools and analyses that underlie strategic marketing decisions. Prereq: grad st

771 Investments. 3 cr. G. Financial assets pricing and selection for stocks, bonds, convertible securities, and warrants. Concepts of diversification, asset valuation models and derivative securities. Prereq: grad st; BusMgmt 705(P) & BusMgmt 709(P)

772 Portfolio Management. 3 cr. G. Study of dynamic process that periodically matches investors' goals, objectives, and strategies with market expectations through portfolio construction and revision. Covers asset allocation, return optimization, and management of various asset types. Prereq: grad st; Bus Adm 771(P)

773 Options And Futures. 3 cr. G. Pricing theories and models for options and futures contracts and their application to investment hedging, arbitrage, and portfolio management. Covers equity, fixed income, commodity, and currency options and futures. Prereq: grad st; Bus Adm 771(P)

774 Global Financial Management. 3 cr. G. Analysis of financial problems corporations face when operating in an international environment. Emphasis on management of foreign exchange risk. Prereq: grad st; Bus Mgmt 705(P); Bus Mgmt 710(C)

775 Financial Strategy. 3 cr. G. Application of financial theory to corporate strategic planning. Working capital management, capital budgeting, capital structure, dividend policy, global finance, and mergers and acquisitions. Prereq: grad st; BusMgmt 705(P) & BusMgmt 709(P)

776 Financial Management of Health Care Organizations. 3 cr. G. Theory and application of techniques of financial management in a non-profit organization. Covers acquisition and management of capital assets; management of working capital; sources of funds; and financial decision-making under multiple goals. Prereq: grad st; Bus Adm 709(P) & 729(P)

777 Advanced Corporate Finance. 3 cr. G. Critical examination and evaluation of modern corporate finance theory. Market efficiency, corporate investment decisions, capital structure, financing vehicles, risk management, corporate restructuring, and governance. Prereq: grad st; Bus Adm 771(P), 775(P)

778 Financial Institutions and Markets. 3 cr. G. Application of finance theory to financial management of firms including commercial banks, insurance companies, pension funds, mutual funds, and securities firms. Prereq: grad st; BusMgmt 705(P)

779 Fixed Income Securities. 3 cr. G. Examination of the pricing and features of modern fixed income securities including treasuries, municipals, mortgage-backed, callable and putable bonds, convertibles, and interest rate swaps. Prereq: grad st; Bus Adm 771

781 Enterprise Resource Planning and Control. 3 cr. G. Production planning and inventory management for both manufacturing and service organizations. An enterprise resource planning (erp) software such as sap will be used in the course. Prereq: grad st; BusMgmt 711(P)

782 Manufacturing Technology and Simulation. 3 cr. G. Manufacturing innovations (e.g., lean manufacturing), manufacturing information systems, simulation-based technology development and prototyping, manufacturing systems design and simulation. Prereq: grad st; BusMgmt 709(P) & Bus Adm 710(P)

783 Supply Chain Management. 3 cr. G. Management of supply chain, supply chain design, purchasing and distribution, supply contracts, and supply chain technology. Prereq: grad st; BusMgmt 711(P)

784 Process Breakthrough Managment. 3 cr. G. Business process breakthrough methods and tools, including 6-sigma methodology, measurement systems analysis, and advanced process control techniques. Prereq: grad st; BusMgmt 709(P) & BusMgmt 711(P)

785 Project Management and Innovative Operations. 3 cr. G. Management of innovative business projects, including multi-tier contracting, cpm/pert, virtual manufacturing, quality targeting and pursuit, and global operations. Prereq: grad st; BusMgmt 711(P) & Bus Adm 782(C)

788 Engineering Project Management. 3 cr. G. Emphasis on techniques for managing engineering projects, including generating project proposals, cost-benefit analysis, project team formation and managing, project planning and scheduling, and risk management. Prereq: grad st

794 Enterprise Integration: (Subtitled). 1 cr. G. Knowledge and skills important for effective integration and management of organizations across technical and business functions, and national and cultural boundaries. Topics vary and may include methods for quality improvement, management communications, business ethics, organizational leadership, etc. Prereq: grad st in Bus Adm or prior approval of Bus Adm graduate prog services office

795 Seminar-in-Management. (Subtitled). 1-3 cr. G. Intensive and critical examination of a specific management problem area or a related research question. Specific topic and additional prerequisites may appear in the schedule of classes each semester. Repeatable with change in topic. Prereq: grad st; appropriate management science core courses or cons instr

796 Competition and Strategy. 3 cr. G. An interdisciplinary analysis of forces that shape industry competition and a firm's competitive advantage. Focuses on strategies for success in high technology, mature, declining, and global industries. Prereq: grad st; BusMgmt 706

797 Management Project. 2 or 4 cr. G. Investigation of an actual management problem or another substantive question in an allied discipline presented, for example, in the form of a business report or professional paper. May be retaken with change in topic with cons appropriate SBA prog committee. Prereq: grad st; cons instr

798 Strategic Planning in Public and Nonprofit Sectors. 3 cr. G. Focuses on effective designs for strategic planning processes and assessment of external environmental and internal organizational characteristics, design, and evaluation of strategies. Prereq: grad st

799 Reading and Research. 1-12 cr. G. Individual work suited to the needs of graduate students. May be retaken with change in topic with cons appropriate SBA prog committee. Prereq: grad st; cons instr

800 (effective 09/06/2005) Multinational Business Operations. 3 cr. G. Theories, information, and research pertaining to management of international business including selected aspects of foreign investment decision, strategy development, organization and control of multinational operations. Prereq: grad st

800 Multinational Business Operations. 3 cr. G. Theories, information, and research pertaining to management of international business including selected aspects of foreign investment decision, strategy development, organization and control of multinational operations. Prereq: grad st; Bus Adm 705(P)

801 International Accounting and Taxation. 3 cr. G. Introduction to the conceptual, managerial, professional, and institutional issues of international accounting and taxation. Examination of comparative financial accounting, reporting systems and foreign exchange accounting. Prereq: grad st; Bus Adm 703(P) & 800(P)

802 Legal Dimensions of International Business. 3 cr. G. Legal dimensions of international business transactions such as documentary sale, excuse for nonperformance, dispute settlement, banking and financing and loan syndications, trade controls, antitrust regulations. Prereq: grad st; Bus Adm 800(P)

806 International Marketing. 3 cr. G. Examines international market development including determining objectives, evaluating market opportunities, entry strategies, and marketing mix in the international environment. Prereq: grad st

807 (effective 01/24/2005) Seminar in International Business: (Subtitled). 3 cr. G. Topics limited to the areas of international business. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. May be repeated w/ chg in topic to 6 cr max. Prereq: grad st

808 International Business Negotiations. 3 cr. G. Process and strategies for international business negotiations between multinational corporations and foreign governmental agencies and firms for the establishment of trade, joint ventures, and economic cooperation. Prereq: grad st; Bus Adm 800(P) or cons instr

809 International Business Strategy. 3 cr. G. Examines the strategic planning and action of international firms from the perspective of corporate headquarters. Prereq: grad st; Bus Adm 800(P) & 806(P), or cons instr

811 Business Reengineering Through Information Technology. 3 cr. G. Conceptual understanding of business reengineering emphasizing role of it. Develop skills in process assessment/redesign, it assessment/integration into business processes. Action planning of it-enabled reengineering implementation. Prereq: grad st; BusMgmt 707(P) or Bus Adm 744(P); or cons instr

812 Emerging Information Technologies. 3 cr. G. Introduction to novel information technologies; assessing viability, impact and management of emerging technologies; integration with traditional information technology. Hands-on experience in laboratory setting. Prereq: grad st; Bus Adm 740(P) or cons instr

813 Object-Oriented and Visual Paradigms. 3 cr. G. Object-oriented/visual concepts and use in management applications; object-oriented/visual design and development methodologies/languages; prototyping; implementation in an appropriate environment. Prereq: grad st; Bus Adm 740(P)

814 Intelligent Systems for Business. 3 cr. G. Knowledge-based systems for business domains. Foundations and pragmatic acquisition of business knowledge. Use of intelligent systems in data mining, intelligent agents, and knowledge management. Prereq: grad st

819 Management Information Systems Internship. 3 cr. G. A defined work period addressing information systems in a corporate, government, or management consulting environment. Prereq: grad st; writ cons instr

820 Tax Research, Practice, and Procedure. 3 cr. G. Methodology of federal tax research, including computerized research. Organization of and practice before the irs. Audits, deficiencies, assessment and collection. Preparer penalties. Ethical responsibilities. Prereq: grad st; Bus Adm 405(P)

823 Corporate Income Taxation. 3 cr. G. Tax issues associated with formation, operations, liquidation and reorganization of regular corporations. Introduction to consolidated returns. Prereq: grad st; Bus Adm 820(C)

825 Estate Planning. 3 cr. G. Estate, gift and income tax issues associated with intra-family and charitable wealth transfers. Business succession planning. Prereq: grad st; Bus Adm 820(C)

826 Tax Planning for Individuals. 3 cr. G. Advanced tax issues and planning opportunities for individuals. Introduction to the taxation of trusts and estates, as well as estate and gift tax issues. Prereq: grad st; Bus Adm 820(C)

827 Taxes and Business Strategy. 3 cr. G. Comprehensive examination of tax planning issues associated with choice of entity, start-ups, purchase or sale of business, compensation, and financing options. Business succession planning. Prereq: grad st; Bus Adm 820(C)

828 Taxation of Partnerships, S Corporations, and LLCs. 3 cr. G. Tax issues associated with formation, operation, and dissolution of partnerships. Subchapter s corporations, and limited liability companies. Sale of ownership interests. prereq: grad st; Bus Adm 820(C)

829 Executive Compensation and Benefits. 3 cr. G. Tax issues associated with different methods of compensating executives and other employees. Prereq: grad st; Bus Adm 820(C)

831 Multistate Income Taxation. 3 cr. G. State taxation of income derived by corporations, flow through entities, and individuals from interstate business and investment activity. Prereq: grad st

832 Property Taxation. 3 cr. G. Basic and advanced topics in state and local property taxes, with an emphasis on issues commonly encountered by multistate businesses. Prereq: grad st

834 International Taxation. 3 cr. G. U.s. taxation of income derived by corporations, flow-through entities, and individuals from both outbound and inbound business and investment activity. Prereq: grad st; Bus Adm 820(C)

837 Sales and Use Taxation. 3 cr. G. Basic and advanced topics in state and local sales and use taxes, with an emphasis on the treatment of transactions commonly encountered by multistate businesses. Prereq: grad st

838 Managing State and Local Audits. 3 cr. G. Practical insights into managing the problems encountered in state and local income, sales and use, and property tax audits. Prereq: grad st

839 Topics in Taxation. (Subtitled). 3 cr. G. The topics are limited to the area of taxation. May be repeated with change in topic to max of 6 cr. Prereq: grad st; Bus Adm 820(C)

841 Financial Statement Analysis and Financial Instruments. 3 cr. G. Implications of alternative financial accounting methods for analysis and decision-making. Creative new financial transactions. Understanding the motivations for, and results of, financial engineering. Prereq: grad st; Bus Adm 402(P) & 403(P)

842 Governmental and Nonprofit Accounting. 3 cr. G. A study of the unique accounting, financial reporting, budget and audit issues of governmental and nonprofit organizations. Prereq: grad st; Bus Adm 721(P)

843 International Accounting Theory and Practice. 3 cr. G. Environmental influences on accounting and taxation, consolidation of foreign subsidiaries, analysis of foreign financial statements, foreign currency transactions, transfer pricing, foreign tax treaties and planning. Prereq: grad st; Bus Adm 402(P), 403(P), & 406(P)

844 Auditing: Professional Standards and Practices. 3 cr. G. An in-depth study of the various professional standards that shape the audit process including those related to audit procedures, reporting responsibilities, and statistical sampling. Prereq: grad st; Bus Adm 409(P)

845 Strategic Planning and Control Systems. 3 cr. G. Designing management control systems to implement organizational strategy. Topics include performance measurement, strategic planning, transfer pricing, and reward system design. Prereq: grad st; Bus Adm 203(P) & 404(P)

846 Accounting Research Methods. 3 cr. G. Methodology of federal tax research, including computerized tax research, as well as financial accounting research skills needed for practicing accounting in a modern electronic environment. Prereq: grad st; Bus Adm 203(P)

847 Topics in Accounting Theory. (Subtitled). 3 cr. G. Analysis of contemporary accounting issues with emphasis on applications of accounting theory and the development of research and analytical skills. Extensive use of case studies. Specific topic and additional prerequisites may appear in the Timetable each semester. Repeatable with change in topic to 6 cr max. Prereq: grad st; Bus Adm 402(P), 403(P), & 404(P).

849 Accounting Internship. 3 cr. G. A defined work period in an accounting firm, corporation, or governmental agency. Prereq: grad st; writ cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Introduction to Electronic Business. 3 cr. G. Overview of the evolution and trends in conducting ebusiness on the internet/web. Key technological, marketing, supply-chain-oriented, legal, and tax challenges and potential solutions will be discussed. Prereq: grad st

891 Development of Electronic Business Applications. 3 cr. G. Introduction to tools and technologies for developing electronic business applications. Client/server, data access protocols, scripting, business transactions, security, shopping carts, merchandising, and credit card payments. Prereq: grad st

892 Analysis and Design of Electronic Business Systems. 3 cr. G. Modeling electronic business systems. Identifying requirements, conceptual and logical design, user interface and data management. Integration with internal and external systems. Prereq: grad st

893 Infrastructure for Electronic Business. 3 cr. G. Design and development of corporate technology infrastructure for electronic business. Open standards. Security, reliability, and performance considerations. Data management issues. Prereq: grad st

894 Internet Marketing. 3 cr. G. Introduction to the principles of internet marketing, types of products that can be marketed online, communication strategies, selling strategies, and pricing strategies. Prereq: grad st

895 Strategic Marketing Issues in eBusiness. 3 cr. G. Online branding, internet pricing and promotion strategy, managing channel conflict, online competitive strategy, synergies between traditional and online operations, and other topical issues. Prereq: grad st

896 Logistics and Supply Chain for Electronic Business. 3 cr. G. Management of flow of materials and role of communication in ebusiness environment. Integration of ebusiness order management with physical delivery system. Prereq: grad st

897 eBusiness Practicum. 4 cr. G. Team project to build a prototype ebusiness system to address a specific client need. This involves need assessment, market research, requirement specification, system design and building a working prototype. Prereq: grad st; any three eBusiness courses & cons instr

899 Management Research Project/Thesis. 1-6 cr. G. Original analysis of a management problem. Involves the application of the elements of scientific inquiry in the context of a contemporary problem. Prereq: grad st; cons instr

900 Doctoral Orientation to Teaching and Research. 1 cr. G. Introduces doctoral students to academic careers and research management. Focuses on research approaches, research manage-

ment in private and public organizations, and teaching responsibilities in higher education. Prereq: grad st

912 Statistical Methods for Management Research. 2 cr. G. Overview of methods for management research including modelling of uncertainty, hypothesis testing, survey designs, and distribution-free methods for data analysis. Prereq: grad st; Bus Adm 709(P); 799(P) or cons instr

913 Advanced Business Forecasting Methods. 2 cr. G. Business forecasting using advanced quantitative techniques such as multiple time series methods, random coefficient models, and kalman filter method. Prereq: grad st; Bus Adm 713(P) & 912(P)

914 Advanced Multivariate Techniques in Management Research. 2 cr. G. Analysis of research problems in various management disciplines using advanced multivariate methods such as discriminant analysis, clustering, multidimensional scaling, logit and probit models. Prereq: grad st; Bus Adm 714; Bus Adm 754 or 912

918 Doctoral Seminar in Behavioral Research Methods in Management. 3 cr. G. Selected advanced topics in behavioral research methods. Prereq: grad st; Bus Adm 709 or 754

990 (effective 01/24/2005) Doctoral Seminar in Strategic Management: (Subtitled). 3 cr. G. Selected advanced topics in strategic management. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. May be repeated w/ chg in topic to a 9 cr max. Prereq: grad st

991 (effective 01/24/2005) MIS Doctoral Seminar II: (Subtitled). 3 cr. G. Selected advanced topics in management information systems. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. May be repeated w/ chg in topic to a 9 cr max. Prereq: grad st

992 Doctoral Seminar in Marketing: (Subtitled). 3 cr. G. Selected advanced topics in marketing. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

993 Doctoral Seminar in Production and Operations Management: (Subtitled). 3 cr. G. Selected advanced topics in production and operations management. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st & cons instr

994 Doctoral Seminar in Finance: (Subtitled). 3 cr. G. Selected advanced topics in finance. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

995 Doctoral Seminar in Decision Sciences: (Subtitled). 3 cr. G. Selected advanced topics in multi-disciplinary and methodological issues in management science. Specific topics and any additional prereqs will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st; Bus Adm 709 or 754

996 (effective 01/24/2005) Doctoral Seminar in Organizations: (Subtitled). 3 cr. G. Selected advanced topics in organizations. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakeable w/ chg in topic to 9 cr max. Prereq: grad st

996 Doctoral Seminar in Organizations and Strategic Management: (Subtitled). 3 cr. G. Selected advanced topics in organizations and strategic management. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

997 Doctoral Dissertation. 1-12 cr. G. - Prereq: grad st; cons instr

998 (effective 01/24/2005) MIS Doctoral Seminar I: (Subtitled). 3 cr. G. Selected advanced topics in management information systems. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakeable w/ chg in topic to 9 cr max. Prereq: grad st

998 Doctoral Seminar in Management Information Systems: (Subtitled). 3 cr. G. Selected advanced topics in management information systems. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

999 Independent Work. 1-3 cr. G. - Prereq: grad st; cons instr

Business Management (BUSMGMT)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

704 Accounting Analysis and Control. 3 cr. G. Prepares managers to critically analyze, interpret and use financial statements, cost reports, and other financial information provided by accountants and accounting systems. Prereq: grad st; Bus Adm 703(P)

705 Corporate Finance. 3 cr. G. Analysis of corporate financial decision-making including security valuation, cash flow estimation, capital budgeting, financial planning, capital structure, dividend policy, and international financial management. Prereq: grad st; Bus Adm 702(P) & 703(P)

706 Managing in a Dynamic Environment. 3 cr. G. Provides frameworks and techniques for managing people and improving organizations. Topics include motivation, group dynamics, leadership, performance management, structure, innovation, power, change, and corporate cultures. Prereq: grad st; Bus Adm 700(P)

707 Information Technology for Competitive Advantage. 3 cr. G. Role of information technology in business in the information age; enterprise-wide approaches and innovative solutions; it planning and impact for operational and strategic decisions. Prereq: grad st; Bus Adm 700(P) & 701(P)

708 Marketing Strategy: Concepts and Practice. 3 cr. G. Builds key concepts in marketing strategy, develops knowledge of current issues and provides hands-on

experience in developing and executing marketing strategies for today's managers. Prereq: grad st

709 Data Analysis for Management Applications. 3 cr. G. Developing statistical thinking through basic concepts for data analysis. Formulation of regression and related models, diagnostics, interpretations and reporting of statistical results for management applications. Prereq: grad st; Bus Adm 701(P) & 702(P)

710 (effective 01/24/2005) Economic Analysis for Managers. 3 cr. G. Production and pricing in different market environments, strategic decision-making, optimal incentives and procurement, regulatory issues, environmental issues, and economics of information. Prereq: grad st; BusMgmt 709(C)

710 Economic Analysis for Managers. 3 cr. G. Production and pricing in different market environments, strategic decision-making, optimal incentives and procurement, regulatory issues, environmental issues, and economics of information. Prereq: grad st; BusMgmt 702(P); BusMgmt 709(C)

711 Competitive Operations Strategy. 3 cr. G. Strategic views of operations function will be emphasized through a series of case studies on topics such as lean manufacturing, TQM, JIT, and world class manufacturing. Prereq: grad st; BusMgmt 709(P)

712 Strategic Management. 3 cr. G. Tools for strategic thinking and developing competitive strategies. Analysis of forces that shape industry competition and competitive advantage. Management issues and internal functional strategies that lead to effective strategy implementation. Prereq: grad st; BusMgmt 704(P); 705(P); 709(P); 710(P); 711(P); or admis to MS in Management prog

713 (effective 01/24/2005) Entrepreneurship: Venture Creation and Management. 3 cr. G. Study of creation, growth or acquisition of a business through entrepreneurial efforts. Process of identifying and quantifying opportunities, then conceptualizing, planning and starting a new enterprise. Prereq: grad st; Bus Adm 703(P) & BusMgmt 708(P)

713 Entrepreneurship: Venture Creation and Management. 3 cr. G. Study of creation, growth or acquisition of a business through entrepreneurial efforts. Process of identifying and quantifying opportunities, then conceptualizing, planning and starting a new enterprise. Prereq: grad st; 217-701, 217-702, 217-703 & 217-704

714 Managing People and the Role of General Managers. 3 cr. G. Provides framework for understanding organizational behavior and roles of general managers, as distinct from functional specialists. Develops managerial skills through cases, exercises, and industry projects. Prereq: grad st

715 Leadership, Team Building, and Effective Management. 3 cr. G. Provides a working knowledge of team building, managing change, and effective business communication methods, and an understanding of leadership tools. Prereq: grad st

716 International Business Management and Residence. 3 cr. G. Theories and research pertaining to international business, including foreign investment, marketing, personnel, strategy development, and control of multinational operations are presented through coursework and residency. Prereq: grad st

717 Operations and Supply Chain Management. 3 cr. G. Focuses on key issues of management of operations in general, and managing supply chain in particular. Exposure to concepts of enterprise and supply chain integration through enterprise resource planning (ERP). Prereq: grad st

718 Concepts and Practice of Nonprofit Management. 3 cr. G. Characteristics and formation of nonprofit organizations; building effective boards of directors; board roles and responsibilities; conflicts of interest; evaluating nonprofit performance; grant writing, foundations, and fund-raising. Prereq: grad st

719 International Human Resource Management. 3 cr. G. Examines international human resource management functions and processes. Theoretical and applied issues aimed at increasing understanding of how international issues affect HRM. Prereq: grad st

720 Strategic Management in Health Care Organizations. 3 cr. G. Application of strategic management tools and techniques to health care organizations. Analyzing external, competitive, and internal environment; developing objectives; understanding current strategy; formulating and implementing future directions. Prereq: grad st; Bus Adm 757(P); BusMgmt 708(P) or Bus Adm 766(P); BusMgmt 704(P), 705(P), 706(P), 707(P), & 711(P).

721 Fundraising and Development for Nonprofit Organizations. 3 cr. G. Philosophical thoughts on development; basics of fundraising; strategic planning and implementation. Prereq: grad st

722 Global Information Technology Management. 3 cr. G. Management issues surrounding the effective deployment of it and is in different regions of the world. Prereq: grad st

723 Managing and Negotiating Across Cultures. 3 cr. G. Role of culture in international management, including organization, strategy, human resource management, leadership, teams, business ethics, and negotiations. Prereq: grad st

724 Accounting for Nonprofit Organizations. 3 cr. G. Financial and managerial accounting topics for the nonprofit sector; relationship of these topics to finance, the legal environment of nonprofits, and mission of the organizations. Prereq: Grad st.

725 Governance of Nonprofit Organizations. 3 cr. G. Trusteeship, building effective boards of directors for nonprofit organizations; board roles and responsibilities; conflicts of interest; ethics and values; critical review of different governance models. Prereq: Grad st; BusMgmt 718 (P) or Pol Sci 789 (P); BusMgmt 724 (P)

726 Study Abroad: Business Topics: (Subtitled). 1-3 cr. G. Immersion (including instruction at an international university) in the economic, cultural, and business practices of selected countries. Prereq: grad st & acceptance for Study Abroad Prog

727 (effective 01/24/2005) Health Care Accounting, Law and Ethics. 3 cr. G. Critical examination of healthcare specific issues and differences from other industries: financial and accounting practice; legal requirements and constraints; ethical issues facing healthcare managers. Prereq: grad st; BusMgmt 704(P) and 705(P)

728 (effective 01/24/2005) Training and Development in Organizations. 3 cr. G. Development and evaluation of training and career development programs in organizations. Skills-based approach to understanding needs assessments, learning principles, training development and evaluation. Counts as repeat of Bus Adm 443 with similar subtitle. Prereq: grad st

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731 (effective 01/24/2005) Research Tools for Practitioners in Human Resources and Labor Relations. 3 cr. G. Planning and carrying out simple surveys; evaluating policies, programs, and procedures in organizations; interpreting, evaluating and using research conducted by others. Ind Rel 731 and BusMgmt 731 are jointly offered; they count as repeats of one another. Prereq: grad st; Econ 210(P) or Bus Adm 210(P) or cons instr

CLINICAL LABORATORY SCIENCES

College of Health Sciences

Degree Conferred: MS in Clinical Laboratory Sciences
Phone: (414) 229-3124
FAX: (414) 906-3945
Web site:
cfprod.imt.uwm.edu/chs/gp/cls/gclsmenu.html

The Clinical Laboratory Sciences Program in the Department of Health Sciences offers a program of graduate study providing an advanced level of training for medical technologists and other biomedical scientists. Major emphasis in the program is placed on developing an understanding of the mechanisms of human disease and providing broad-based training in laboratory medicine and biomedical sciences. In-depth training is offered in selected areas of emphasis which include: Biomedical Research in chemistry, hematology, immunology, microbiology, and nutrition; Management; Marketing; and Education. The M.S. degree requirements include a thesis based on research which enhances the student's problem-solving abilities and enables that individual to function more effectively in the clinical laboratory and the biomedical field.

Graduate Faculty

PROFESSORS

Dellinger, John, Ph.D., University of Illinois
Lambrecht, Randall S., Ph.D., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Burlage, Robert, Ph.D., University of Tennessee
Eells, Janis, Ph.D., University of Iowa
Ndon, John, Ph.D., Meharry Medical College
Sabatini, Linda, Ph.D., Indiana University

ASSISTANT PROFESSORS

Azenabor, Anthony, Ph.D., University of Benin, Nigeria
Lyons, Jeri-Anne, Ph.D., Medical College of Wisconsin

Master of Science in Clinical Laboratory Sciences

Admission
An applicant must meet Graduate School requirements plus the following requirements to be considered for admission:

- The program primarily enrolls individuals with backgrounds in Clinical Laboratory or a related field who have completed a bachelor's degree at an accredited institution. For students entering without a degree in a related area, the faculty determines deficiencies to be overcome prior to admission. Students may apply for admission at any time during the year; however, review of completed applications will take place twice annually, during the second week of November and March of each year for enrollment beginning the following semester. Applications received after these dates may be considered if space is available in the program. International applicants must have all application materials submitted no less than 8 months prior to the desired date of enrollment. Students may enroll on a full-time or a part-time basis.
- Applicants may be admitted to regular status if their grade point average is the equivalent of 2.75 or above (scale of 4.0). Averages below 2.75 may be considered for admission on a probationary basis, in which case particular attention is given to the last 60 hours completed in the undergraduate program, with special emphasis on performance in science courses. Probationary status is removed after successful completion of the first eight graduate credits with a grade point average of 3.0 or above.
- Graduate Record Examination scores on the General Test are required.
- Three letters of reference, preferably from academic and/or clinical sources, must be submitted.
- Along with the application form, the applicant must submit a letter of not more than I,000 words stating career objectives and reasons for seeking a graduate degree in clinical laboratory sciences.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. Students are permitted a choice of research/specialty emphasis, and an advisor is assigned according to faculty advising loads.

Credits and Courses
The minimum degree requirement is 32 graduate credits. A minimum of 6 credits of core curricular requirements must be taken. In addition, a minimum of 4 credits in seminar (710), and a minimum of 8 credits in research (799) must be taken. Of the remaining 14 credits required for the degree, a minimum of 6 credits must be taken as elective subspecialty courses offered by the program.

Thesis
The student must write an acceptable thesis based in part on original research and pass a final oral examination in defense of the thesis.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Courses

Clinical Lab Sciences (C L SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

420 Clinical Hematology. 3 cr. U/G. Lectures in the production, regulation, function, and cytomorphology of normal hematopoietic elements. Introduction to hemostastis theory. Prereq: jr st or cons instr

427 Clinical Immunology. 3 cr. U/G. Fundamentals of Clinical Immunology, including cellular, humoral and molecular aspects. Correlation of laboratory test results with clinical disease states. Prereq: jr st

497 Clinical Laboratory Sciences - Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: acceptance to Study Abroad Prog

534 Medical Microbiology. 2 cr. U/G. Advanced comprehensive study of microorganisms that influence human health and disease. Emphasis on identification/diagnosis and microbial attributes and mechanisms that facilitate infectious disease. Prereq: jr st & Bio Sci 303(P); or grad st; or cons instr

535 Medical Microbiology Laboratory. 2 cr. U/G. Formal systematic laboratory study of microorganisms important in human health and disease. Emphasis on current methods of detection, identification and treatment. 4 hr lab. Prereq: jr st & Bio Sci 303(P), or cons instr; C L Sci 534(C)

537 Medical Parasitology and Mycology. 2 cr. U/G. Lectures and laboratory dealings with the medically significant parasitic and mycotic agents of human disease. Prereq: sr st in C L Sci Prog; or grad st; or cons instr

539 Public Health Microbiology. 2 cr. U/G. The role of microbiological analysis in public health and the current techniques for detecting, identifying, and enumerating pathogenic microorganisms. Prereq: jr st & Bio Sci 303(P), or grad st; or cons instr

540 Public Health Microbiology Lab. 1 cr. U/G. Current laboratory techniques for detecting, identifying, and enumerating pathogenic microorganisms. Prereq: jr st, or cons instr; C L Sci 539(C)

552 Advanced Nutrition. 2 cr. U/G. Nutrient utilization and human metabolism, nutritional influences in anthropology, epidemiology and international development issues. Prereq: jr st; C L Sci 232(P) or Bio Sci 501(P)

555 Toxicology and Therapeutic Drug Monitoring. 1 cr. U/G. Survey of the pharmacology and analytical methods for identification and quantitation of therapeutic and toxic substances. Prereq: jr st, & Chem 341(P) or 345(P); or cons instr

561 Molecular Diagnostics Laboratory. 1 cr. U/G. Clinical laboratory experiences in molecular diagnostic techniques and instrumentation. Prereq: jr st & C L Sci 560(C); or grad st & C L Sci 705(P); or cons instr

590 Topics in Clinical Laboratory Sciences. (Subtitled). 1-5 cr. U/G. Topics of current interest in the field of clinical laboratory sciences. The major theme for each semester offering will be posted. May be repeated with change in topic to max of 9 cr for grad students. Prereq: jr st; cons instr for grad cr

610 Pharmacology. 3 cr. U/G. Lectures on pharmacokinetics, mechanisms of action, and physiological effects of toxic and therapeutic substances. Prereq: jr st, Chem 501(P), or cons instr

620 Forensic Pathology. 2 cr. U/G. An overview of medicolegal death investigation from the perspective of the forensic pathologist. Prereq: jr st; Bio Sci 203(P)

670 Introduction to Cytometry. 2 cr. U/G. A basic approach to the science of cytometry including both flow and image analysis. Emphasis on instrumentation and theory. Prereq: jr st, C L Sci 310(P) or equiv, or cons instr

701 Human Pathophysiology I. 3 cr. G. An advanced course in basic pathological mechanisms underlying production of human disease and effects on selected organ systems. Prereq: grad st or cons instr

702 Human Pathophysiology II. 3 cr. G. A continuation of 701 dealing with pathogenesis of the major diseases of human organ systems. Prereq: grad st; C L Sci 701(P) or cons instr

705 Molecular Pathology. 3 cr. G. Principles, methods, and applications of nucleic acid-based technologies in pathology and laboratory medicine. Counts as repeat of C L Sci 590 with similar topic. Prereq: grad st; cons instr

706 DNA Alterations in Cancer. 3 cr. G. The molecular basis of cancer; critical evaluation of current literature and clinical utility of various tumor markers. Prereq: grad st

710 Seminar in Clinical Laboratory Sciences. 1 cr. G. Presentation of topics of current interest to the clinical laboratory scientist. May be repeated to max of 9 cr. Prereq: grad st or cons instr

715 Medical Laboratory Management and Education. 2 cr. G. Introduction to management and education theory and application to the clinical laboratory. Prereq: grad st or cons instr

740 Disorders in Hemostasis. 3 cr. G. The course is designed to explore the basis for the clinical disorders associated with abnormal hemostasis. Prereq: C L Sci 522, 701 or equiv

755 Myeloproliferative Syndromes. 3 cr. G. A comprehensive study of human myeloproliferative disease. Emphasis on cytomorphology of peripheral blood, bone marrow and spleen, cellular markers and lineage regulation. Prereq: grad st; C L Sci 320(P) & 521 or cons instr

756 Current Concepts in Leukemia. 4 cr. G. An overview of various forms of human acute and chronic leukemia. Emphasis on cell markers and cytomorphology, clonal etiology and kinetics. Prereq: grad st & cons instr

762 Clinical Protein Chemistry. 3 cr. G. Lecture series on the chemistry and physiology of plasma proteins. Case histories, laboratory findings and interpretations of various abnormal disease states are included. Prereq: grad st; cons instr; Chem 501 or equiv

772 Antimicrobial Agents and Chemotherapy. 3 cr. G. A survey of the effects of antibiotics and chemotherapeutic agents in microorganisms and man. Mode of action, principles of antimicrobial chemotherapy application to basic research. Prereq: lc & la course in medical microbiology; grad st or cons instr

775 Mechanisms of Infectious Disease. 2 cr. G. Review of current molecular and cellular aspects of infectious disease as related to microbial determinants of virulence and the host response. Prereq: lc & la course in medical microbiology; grad st or cons instr

782 (effective 01/24/2005) Advanced Immunology. 3 cr. G. Cellular basis of the immune response with emphasis on immunoregulation and clinical disease manifestations resulting from altered cellular immune function. Prereq: grad st; course in immunology; or cons instr

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782 Advanced Immunology. 3 cr. G. Cellular basis of the immune response with emphasis on immunoregulation and clinical disease manifestations resulting from altered cellular immune function. Prereq: grad st; course in immunology; cons instr

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783 Methods of Clinical Analysis in Immunology. 4 cr. G. Advanced techniques in the clinical laboratory for detection of humoral and cellular components of the immune response. Prereq: grad st; course in immunology; cons instr

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784 Tumor Biology. 3 cr. G. Fundamentals of oncology - cell proliferation; biochemistry and epidemiology of cancer; chemical, physical and biological carcinogenesis; host-tumor relationships; diagnosis and therapy. Prereq: grad st or cons instr

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799 Research in Clinical Laboratory Sciences. 1-8 cr. G. - Prereq: grad st; cons instr

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901 Philosophical Approaches to Health Research. 3 cr. G. The nature and function of sciences, the logic of the scientific method as it relates to health, and implications of research and practices in health sciences. Prereq: grad st

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910 Advanced Seminar in Health Sciences. 1 cr. G. Faculty, students, and guests present research topics in the Health Sciences. Retakable to 4 cr max. Prereq: grad st; cons instr

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990 Research and Dissertation. 1-6 cr. G. Preparation of a dissertation under the direction of the student's primary and secondary advisors. Prereq: grad st; cons instr

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999 Advanced Independent Study. 1-3 cr. G. Individualized experience enables student to study current topics of interest to the clinical laboratory scientist. Level of credit assigned based on time required for completion. Prereq: grad st; cons instr

COMMUNICATION

College of Letters and Science

Degree Conferred: MA in Communication
Phone: (414) 229-4261
Web site:www.uwm.edu/Dept/Commun

The Department of Communication offers a Master of Arts degree designed to provide breadth and depth of study in the following areas: Organizational/Professional Communication, Intercultural/International Communication, Interpersonal Communication/Mediation, and Rhetoric/Public Communication. The program provides initial and advanced preparation for a variety of careers including continued study leading to the PhD degree.

Graduate Faculty

PROFESSORS

Allen, Michael, Ph.D., Michigan State University, Chair
Braman, Sandra, Ph.D., University of Minnesota
Burrell, Nancy, Ph.D., Michigan State University
Dindia, Kathryn A., Ph.D., University of Washington
Johnson, John R., Ph.D., University of Denver
Lim, Tae-Seop, Ph.D., Michigan State University
Meyers, Renee, Ph.D., University of Illinois

ASSOCIATE PROFESSORS

Keith, William, Ph.D., University of Texas-Austin
Mabry, Edward A., Ph.D. Bowling Green State University
Olson, Kathryn M., Ph.D., Northwestern University

ASSISTANT PROFESSORS

Casey, Mary K., Ph.D., Michigan State University
Jordan, John, Ph.D., University of Georgia
Peterson, Jennifer, Ph.D., University of Illinois - Urbana/Champaign
Ryan, Daniel, Ph.D., Texas A&M University
Supriya, K.E., Ph.D., University of Illinios
Timmerman, C. Erik, Ph.D., University of Texas
Timmerman, Lindsay, Ph.D., University of Texas

Master of Arts in Communication

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Possess the equivalent of an undergraduate major in speech, speech communication, or related areas.
- Possess an undergraduate grade point average of 3.00 in the major.
- Submit three letters of recommendation from persons capable of judging the applicant's capacity for success in a graduate program of study.
- Submit scores from verbal, quantitative, and analytical sections of the Graduate Record Examination.
- Submit a sample of written work from an academic and/or professional assignment.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Applicants without the requisite grade point average may be considered for admission on a probationary basis.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The major professor should be designated no later than the end of the student's first year of enrollment. The incoming student is assigned the Graduate Coordinator or other program faculty member as an initial advisor until a major professor is selected.

Credits and Courses
The minimum degree requirement is 30 credits, including 24 credits taken in the Department of Communication and 24 credits selected from courses number 700 or above. The 30 graduate credits are composed of 15 required credits and 15 elective credits, 6 of which may be taken outside the department.

Students must complete either a comprehensive examination or a thesis.

REQUIRED COURSES

800 Proseminar: The Discipline of Communication, 3 cr

One Methods Course, 3 cr
700 Quantitative Research in Communication
701 Critical Analysis of Communication
702 Qualitative Research in Communication
770 Measurement and Evaluation in Speech Communication

One Course from Three of the Four Content Areas, 9 cr
Organizational/Professional Communication
627 Designing and Developing Communication Training Interventions
710 Managerial Communication
810 Studies of Communication in Organizations
813 Seminar in Mediated Communication
823 Seminar in Small Group Communication
827 Seminar in Programs of Adult Communication
860 Seminar: Issues in Communication (with appropriate subtitle)

Intercultural/International Communication
550 International and Global Communication
655 Cultural Training and Adjustment
681 Seminar in Communication in a World of AIDS

850 Seminar in Intercultural Communication
860 Seminar: Issues in Communication (with appropriate subtitle)

Interpersonal Communication/Mediation
665 Introduction to Mediation
801 Seminar in Interpersonal Communication
802 Marital and Family Communication
860 Seminar: Issues in Communication (with appropriate subtitle)
864 Communication and Social Influence
865 Theory and Practice of Mediation

Rhetoric/Public Communication
667 Great American Speakers and Issues
672 Communication and Social Order
735 Theories of Rhetorical Communication
762 Argumentation in Theory and Practice
772 Rhetorical Leadership and Ethics
835 Seminar in Contemporary Public Address
860 Seminar: Issues in Communication (with appropriate subtitle)
872 Rhetoric of Constituting Community & Social Controversy

ELECTIVE CREDITS
The remaining 15 credits are selected by the student in consultation with his/her major advisor. A maximum of six credits outside the department may be counted toward the degree. A maximum of 6 credits below the 700 level may be counted toward the degree. A maximum of 6 credits in Commun 860 may count toward the degree. In addition, the following courses and credits may be counted toward the degree, but a maximum of 9 credits selected from the combination of Commun 998, Commun 999, and courses outside the department may count.

990 Research and Thesis (1 to 6 credits may count toward the degree)
998 Communication Internship (a maximum of 3 credits may count toward the degree)
999 Independent Study (a maximum of 3 credits may count toward the degree)

Rhetorical Leadership Concentration
Interested students may complete a concentration in rhetorical leadership that will be designated on their transcripts. The concentration requires the following courses, which students may select to meet the M.A. degree's course requirements:

672 Communication and Social Order
735 Rhetorical Theory
762 Argumentation in Theory and Practice
772 Rhetorical Leadership and Ethics
872 Rhetoric of Constituting Communities and Social Controversy

These courses complete one content area and 12 elective credits of the degree.

Comprehensive Examination
If the comprehensive exam option is chosen, the student must pass a written and oral examination, given by a faculty committee chaired by the major professor, demonstrating proficiency in integrating knowledge within and among subject matter areas. The examining committee is chosen by the faculty advisor in consultation with the student. The written portion of the comprehensive examination is approximately 8 hours in length, requires preparation beyond coursework taken in the program of study, and may not be attempted before the semester in which the students will complete a minimum of 24 credits in the program, including all required course work. The oral examination follows satisfactory completion of the written examination and is conducted by faculty members of the examining committee.

Thesis Option
A thesis involves applied or basic research and is a proven method for developing specialized knowledge and skills that can enhance an individual's expertise within a substantive area of study. A thesis is recommended for students who intend to continue study toward the PhD degree or plan research-related employment. If the thesis option is elected, the student must initiate and write an original research project under the guidance of his/her major professor; the student also must pass an oral defense of the finished project conducted by his/her thesis commitee.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Graduate Certificate in Mediation and Negotiation

The Department of Communication, in cooperation with the Master's in Human Resources and Labor Relations (MHRLR) and the School of Business Administration, offers the Graduate Certificate in Mediation and Negotiation. The program of study is designed to provide practical and theoretical knowledge for students who wish to pursue or advance careers that involve managing or resolving disputes in organizational, educational, community, or family contexts. The program is designed to meet the increasing need of business, organized labor, public sector and community organizations for people with skills in conflict resolution.

Using an interdisciplinary approach, the program offers a basic knowledge of mediation and negotiation between individuals and across organizations, allows some specialization in further course work, and is integrated with a final course involving either field-work or a research paper written under the direction of an expert in the area.

Students can complete the Graduate Certificate in Mediation and Negotiation while enrolled either part-time or full-time, and by taking courses during evenings and/or weekends. With the approval of the program, students admitted to either the MA in Communication or the MRLR degree program may apply courses taken to meet certificate requirements toward their degree.

Admission
Students applying for the Certificate Program in Mediation and Negotiation must hold a bachelor's degree and must have earned a 2.75 GPA overall or must furnish substantial evidence of ability to succeed in graduate level work. Students may apply to the Graduate School as candidates for the certificate program in non-degree status, or they may pursue the certificate while enrolled in another graduate program.

Credits and Courses
The certificate requires 12 credits, including 9 credits of course work and 3 credits of field work or research.

Required Courses:

Comm	665	Introduction to Mediation
Econ	753	Collective Bargaining

Elective Course: select one of the following

Comm	865	Theory and Practice of Mediation
IR	715	Arbitration and Dispute Resolution
IR	800	Alternative Dispute Resolution
Bus Adm	737	Managerial Decisions and Negotiations

Field Work or Research Requirement: select one of the following (for 3 credits)

Comm	998	Internship in Communication
Comm	999	Independent Study
IR	801	Research Seminar in Industrial and Labor Relations
IR	921	Internship in Industrial Relations
IR	999	Independent Study
Bus Adm	799	Reading and Research

Recommended or Related Courses (not required for the Certificate)

Comm	710	Managerial Communication
Comm	823	Seminar in Small Group Communication
Ed Pol	510	Foundations of Human Relations
IR	711	Labor Relations Law
IR	714	Industrial Relations in the Public Sector
Soc	766	Theory and Method in Social Psychology

Graduate Certificate in Rhetorical Leadership

Leadership is a highly valued, yet always scarce resource in all areas requiring coordinated action: civil society, professional work, profit and non-profit venues, religious and social action contexts. Communication's "Rhetorical Leadership" certificate program prepares leaders with humanistic knowledge, skills and attitudes through five graduate courses. "Rhetorical Leadership and Ethics" covers rhetoric's role in and potential for responsible leadership in multiple arenas; it is informed by the long history of debate over the legitimacy of studying rhetoric as a means of promoting joint action. "Theories of Rhetorical Communication" introduces certificate students to the vast, nearly three milennia-long theoretical range of the rhetorical tradition. "Communication and Social Order" examines how existing institutions and values get established and "naturalized" using symbolic action and conversely how they can be challenged strategically through rhetoric. The more advanced "Rhetoric of Constituting Community and Social Controversy" addresses explicitly the rhetorical range available to leaders, whether their main goal is constituting communities or promoting change in ways that the existing decision-making channels cannot accommodate. "Argumentation in Theory and Practice" integrates argumentative theory and practice in ways that are useful for potential leaders; it involves some performance-based learning that requires students to test their preferred theory alternatives in action.

Applicants must have completed a bachelor's degree prior to admission, must have a minimum 2.75 cumulative undergraduate grade point average, and must declare their intent to pursue the certificate before completion of six credits in the certificate sequence. Applicants not already admitted to the Graduate School must file a non-degree application with Graduate Student Services.

Students must earn a minimum cumulative 3.00 grade point average in certificate courses taken at UWM. Five courses are required:

Commun 672 Communication and Social Order, 3 cr
Commun 735 Theories of Rhetorical Communication, 3 cr
Commun 762 Argumentation in Theory and Practice (Integrative course), 3 cr
Commun 772 Rhetorical Leadership and Ethics, 3 cr
Commun 872 Rhetoric of Constituting Communities and Social Controversy, 3 cr
Students who have little experience in positions of responsibility will be encouraged to participate in a relevant internship during the course of their studies. The program will assist students in identifying appropriate opportunities.

For post-baccalaureate students, a maximum of 3 graduate credits may be transferred to count toward the certificate program's 15-credit requirements. Courses will be considered for transfer into the certificate program only if the applicant can provide ample, acceptable evidence that the course taken is substantially the same as one of the five courses that constitute the certificate program. The Rhetorical Leadership Committee will make such determinations, and its decision is final. No transfer credit is allowed for post-graduate students.

For those simultaneously enrolled in a degree program, up to 50% of the credits required for the certificate may count toward degree requirements, subject to approval of the degree program.

Non-degree students pursuing a "Rhetorical Leadership" certificate will have three years from initial enrollment in a certificate course to complete the certificate requirements. Degree students pursuing a "Rhetorical Leadership" certificate will have the same time limit to complete the "Rhetorical Leadership" certificate requirements as they have for completing the degree program.

The certificate will be awarded upon successful completion (i.e., once all grades for the certificate courses taken at UWM are officially recorded and show a cumulative GPA of 3.0 or more) of the certificate program requirements.

For more information or to apply for the

certificate program, please contact the program coordinator.

Graduate Certificate in Professional Writing and Communication

The Graduate Certificate in Professional Writing and Communication is designed for students who wish to pursue professional careers in technical writing, communication, corporate training and instructional design, or user interface and Web-document design.

Admission
Students must have completed a bachelor's degree with a minimum GPA of 2.75 and must submit the following materials with their graduate school application:

- A portfolio of writing samples.
- Two letters of recommendation from persons knowledgeable about applicants' recent academic or work experience.
- A statement of purpose that identifies the applicants' knowledge of workplace communication practices and business operations, their professional experience, or basic undergraduate coursework in business writing, technical writing, and communication.
- A statement describing the applicants' access to and operational knowledge of online communication technology, including a PC or equivalent computer system with Internet access and other applications sufficient to participate in the program's online learning activities.

Applicants must declare their intent to pursue the Certificate program before completion of six credits in the Certificate sequence.

Credits and Courses
Students must complete 15 credits of course work as outlined below. The Certificate will be awarded when students achieve the following:

- Complete 9 credits in required courses in English.
- Complete 6 credits from a choice of courses in Communication.
- Earn a minimum cumulative GPA of 3.0 in the courses that apply to the Certificate.

With the consent of the Certificate Coordinator and subject to the Graduate School transfer policy, students who have completed appropriate courses for graduate credit at other institutions may transfer up to three credits into the Certificate Program, provided that the courses were completed within the last five years with a grade of B or better.

Required Courses in English, 9 credits.
Students will take 9 credits selected from the following required English courses:

Advanced Professional Writing (English 708) or Professional Writing (436)
Rhetoric, Writing, and Information Technology (English 709) or Writing for Information Technology (English 436)
Advanced Project Management for Professional Writers (English 710) or Project Management for Professional Writers (English 437)

Students who within the past five years have successfully completed courses equivalent to these required English courses may, with the approval of the Certificate Coordinator, substitute alternate English graduate courses.

Required Courses in Communication, 6 credits.
Students, in consultation with the Program Coordinator, will take 6 credits selected from the following Communication Courses:

Designing and Developing Communication Training Interventions (Commun 627)
Studies of Communication in Organizations (Commun 810)
Seminar in Mediated Communication (Commun 813)
Seminar in Small Group Communication (Commun 823)
Seminar in Programs of Adult Communication (Commun 827)

Students who intend to enroll in both the Certificate program and a graduate degree program must apply for admission to both the Certificate program and to the graduate degree program of their choice. With the approval of the graduate coordinator of the student's graduate program, up to six credits completed in the Certificate also may satisfy graduate program requirements.

Students not concurrently enrolled in a UWM graduate degree program later may transfer credits completed in the Certificate to a UWM graduate degree program, subject to Graduate School transfer policy and subject to the guidelines and approval of the graduate coordinator of the respective degree program.

Students seeking admission to the Certificate and to graduate degree programs are advised to seek the advice of graduate coordinators of each program.

Time Limit
A student must complete all requirements for the Certificate within 3 years of his/her initial enrollment.

Courses

Communication (COMMUN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

550 International and Global Communication. 3 cr. U/G. Models, theories, and contexts of relational communication between people from different nation states, viewed from interpersonal, small group, organizational, and rhetorical perspectives. Satisfies L&S International req. Prereq: jr st; Commun 350(P) or cons instr

627 Designing and Developing Communication Courses and Programs. 3 cr. U/G. Theory/methods in designing/developing communication courses/programs for academic (college)/organizational (training) environments. Students design/develop instructional materials for online and/or onsite delivery. Prereq: jr st; 9 crs Commun 300-level or above; declared Commun or BAOA major; or cons instr

655 Cultural Training and Adjustment. 3 cr. U/G. Examination of theories and research related to the role of communication in cultural adjustment processes, cultural training, and evaluation of training. Prereq: jr st; Commun 350(P) or cons instr

665 Introduction to Mediation. 3 cr. U/G. Course focuses on learning about the mediation process, related theories,

and its application in a variety of contexts. Students receive twenty hours of mediation training. Prereq: jr st

667 Great American Speakers and Issues. 3 cr. U/G. Selected great speakers and their speeches on major issues in American history. Prereq: jr st

672 Communication and Social Order. 3 cr. U/G. The role of communication in both maintaining and challenging social structures and hierarchies. Prereq: jr st

675 Communication in International Mediation and Peacebuilding. 3 cr. U/G. The various forms of international mediatory activity employed to bring sustainable peace to areas gripped by ethnic and social conflict. Prereq: jr st or cons instr

681 Seminar in Communication in a World of AIDS. 3 cr. U/G. Communication issues surrounding education and prevention of HIV infection both in the United States and across the world. Satisfies L&S Seminar req. Prereq: jr st

700 Quantitative Research in Communication. 3 cr. G. Introduction to the methods and techniques of quantitative research in communication, with special focus on problems of experimental and field research. Prereq: grad st

701 Critical Analysis of Communication. 3 cr. G. Introduction to the methods and techniques of humanistic research in communication, with special focus on problems of criticism and history. Prereq: grad st

702 (effective 01/24/2005) Qualitative Research in Communication. 3 cr. G. Methods and techniques of qualitative research in communication; special focus on problems of discourse analysis and interaction observation. Prereq: grad st

702 Qualitative Research in Communication. 3 cr. G. Introduction to the methods and techniques of qualitative research in communication, with special focus on problems of discourse analysis and interaction observation. Prereq: grad st & cons instr

705 Communication for Professionals. 3 cr. G. Development of communication knowledge and skills (interpersonal, group and team, presentational, electronic) fundamental to successful professional activities. Does not count toward a Graduate degree in Communication. Prereq: grad st

710 Managerial Communication. 3 cr. G. Designed for organizational communication practitioners; surveys analytic and implementation skills necessary for effective management of communication processes. Prereq: grad st

727 Seminar in Communication and E-Learning. 3 cr. G. Theoretical and applied issues related to teaching communication within an e-learning environment. For individuals interested in college teaching/corporate training. Prereq: grad st

735 Theories of Rhetorical Communication. 3 cr. G. Critical study of various humanistic theories of rhetorical communication. Major emphasis on contemporary theories, trends, and concepts. Prereq: grad st

762 Argumentation in Theory and Practice. 3 cr. G. Argumentation theories in a performance-based context to train citizen-scholars. Assumes no prior knowledge of argumentation theories. Prereq: grad st

768 Seminar in Theories of Speech Communication. 3 cr. G. Examination of the structure, use, development, evaluation and integration of social scientific theories, perspectives, and conceptions of communciation. Includes emphasis on clashes among current positions. Prereq: grad st

770 Measurement and Evaluation in Speech Communication. 3 cr. G. Consideration of problems and methods of formulating, constructing, and interpreting tests, measurements, and evaluation procedures related to speech communication. Prereq: grad st; Commun 700(P) or cons instr

772 Rhetorical Leadership and Ethics. 3 cr. G. The practice of responsible leadership from the humanities-based perspective of rhetoric. Prereq: grad st

800 Proseminar: The Discipline of Communication. 3 cr. G. The theoretical, conceptual, and pedagogical parameters of communication as a discipline. Prereq: grad st; admission to Commun M.A. Program or cons instr.

801 Seminar in Interpersonal Communication. 3 cr. G. Overview of current perspectives and critical analysis of research in verbal and nonverbal aspects of interpersonal communication. Prereq: grad st

802 Marital and Family Communication. 3 cr. G. Examination of how communication functions to develop, maintain, enrich, or limit family relationships. Prereq: grad st

803 Gender and Communication. 3 cr. G. Seminar on interactive relationships between gender, communication, and culture; emphasis on the ways in which communication creates and perpetuates gendered identities and gendered interaction. Prereq: grad st

810 Studies of Communication in Organizations. 3 cr. G. Surveys theory and research on communication processes that constitute and maintain organizations. Topics include communication and networks, managerial hierarchy, power, and organizational culture. Prereq: grad st

813 Seminar in Mediated Communication. 3 cr. G. Advanced course focusing on theory and research pertaining to relationships between human communication processes and interactive technologies. Prereq: grad st

823 Seminar in Small Group Communication. 3 cr. G. Examination of theory and research in small group communication: methods, applications, and problems of small group communication. Prereq: grad st

827 Seminar in Instructional Communication. 3 cr. G. Theory and practice of teaching communication using face-to-face and online methods and in academic (college) and organizational (training) environments. Prereq: grad st

835 Seminar in Contemporary Public Address. 3 cr. G. Observation and analysis of verbal and nonverbal messages, forms, situations, strategies and media in contemporary public communication. Prereq: grad st

850 Seminar in Intercultural Communication. 3 cr. G. Examination of advanced theory and research in intercultural and international communication; methods and problems of intercultural communication research. Prereq: grad st

860 Seminar: Issues in Communication. (Subtitled). 3 cr. G. In-depth study and discussion of application of communication research and theory. Content varies. Retakable w/chg in topic to 9 cr max. Prereq: grad st

864 Communication and Social Influence. 3 cr. G. Advanced theory and experimental studies in persuasion. Prereq: grad st

865 Theory and Practice of Mediation. 3 cr. G. Course extends learning about mediator communication competence by exploring professional, ethical and theoretical issues in third party intervention. Students receive advanced mediation training and field experience. Prereq: grad st; Commun 665(P)

872 Rhetoric of Constituting Community and Social Controversy. 3 cr. G. Advanced theories of promoting and disrupting identification or division and social conflict through rhetoric. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

990 Research and Thesis. 1-6 cr. G. Production of a thesis under the supervision of student's major professor with consultation of the degree committee. Prereq: grad st & cons instr

998 Communication Internship. 1-3 cr. G. Student applies course work in profit or nonprofit setting; synthesizes course and work experience in graded paper. Retakable to 3 cr max. Prereq: grad st; 12 grad cr Commun or, for mediation interns, 6 grad cr from Mediation Cert course list; writ cons sponsoring agency or organization; cons supervising faculty member & Commun grad prog dir

999 Independent Study. 1-3 cr. G. Supervised investigation of a particular topic area either not covered by other communication courses or at a level of sophistication beyond that in other courses. Retakable to 3 cr max. Prereq: grad st; cons instr

COMMUNICATION SCIENCES AND DISORDERS

College of Health Sciences

Degree Conferred: MS in Communication Sciences and Disorders
Phone: (414) 229-4263
FAX: (414) 229-2620
E-mail: jane@uwm.edu

Graduate Faculty Contact
Phone: (414) 229-4291
FAX: (414) 229-2620
E-mail: cseery@uwm.edu

Web site:
cfprod.imt.uwm.edu/chs/ugp/csd/graduatestudents.htm

The Department of Communication Sciences and Disorders offers a program of graduate study which prepares students for careers as speech-language pathologists in public schools, hospitals, rehabilitation centers, nursing homes, and university training programs. The program typically takes 2 calendar years to complete. Students usually prepare for service delivery in both school and healthcare clinical settings to maximize career flexibility. Occasionally, students may choose to focus career preparation on just one type of setting.

The master's degree program in speech-language pathology (M.S. in Communication Sciences and Disorders) at the University of Wisconsin - Milwaukee is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852, 301-897-5700 (www.asha.org/about/academia/accreditation/CAA_overview.htm). Students who complete the graduate program will meet the academic course work and clinical practicum requirements of the Standards for the Certificate of Clinical Competence in Speech-Language Pathology (CCC) issued by the American Speech-Language-Hearing Association (ASHA).

The Wisconsin Department of Public Instruction (DPI) has approved the undergraduate/graduate program in communication sciences and disorders, and students considering careers in a school setting will be eligible for a Wisconsin license upon graduation with their master's degree.

Campus laboratory and instructional facilities include a speech and language clinic, a hearing evaluation center, and a communication science laboratory. Research and instructional laboratories contain videotape recorders, computers, and a variety of electrophysiological and electroacoustical instruments.

Following two successful practicum experiences in the on-campus clinics, students are eligible for off-campus externships in medical, rehabilitation, and school sites. A successful practicum experience is one in which a student earns a grade of B or better. Because of recent changes in Chapters 48 and 50 of the Wisconsin State Statutes, students placed in these facilities are required to pass a criminal background check prior to the externship placement.

Graduate Faculty

ASSOCIATE PROFESSORS

Gelfer, Marylou, Ph.D., University of Florida , Chair
Rhyner, Paula, Ph.D., Kent State University
Seery, Carol, Ph.D., University of Washington

ASSISTANT PROFESSORS

Bauer, Jay J., Ph.D., Northwestern University
Easterling, Caryn, Ph.D., University of Wisconsin-Madison
Lee, Soyoung (Sue Ann), Ph.D., University of Texas - Austin
Lund, Shelley, Ph.D., Pennsylvania State University

Master of Science in Communication Sciences and Disorders

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate major in communication sciences and disorders
- A cumulative overall grade point average of 3.0 or better (scale of 4.0).
- Minimum grade point average of 3.0 or better in the undergraduate major courses.
- Submission of three letters of recommendation from persons familiar with applicant's academic qualifications and achievements.
- Submission of Graduate Record Examination scores.
- Submission of a written statement according to departmental guidelines.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Students preparing for professional certification in speech-language pathology must also have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and mathematics.

Major Professor as Advisor
The student must have a major professor to advise and supervise the graduate studies as specified in Graduate School regulations. Entering students are assigned advisors according to faculty advising loads.

Credits and Courses
Minimum degree requirement is 45 credits, 33 of which are core curriculum requirements and must be in Communication Sciences and Disorders 670, 680,

701, 703, 704, 705, 706 OR 660, 708, 709, 710, 711, 725, 791, and 790 or 799. Additional credits are obtained in elective courses (4 credits of electives are required from among 620, 630, 690, 702, 717, 790, 799, 802, 804, or 706 OR 660, whichever was not taken to fulfill the core requirement), for a total of 37 credits. The remaining credits will be taken in clinical practicum. The student, in consultation with the major advisor, plans the appropriate practicum courses for on-campus clinics and off-campus externships to meet ASHA certification, DPI and Wisconsin licensure requirements. Only clinical clock hours for clinical practicum experiences in which the student has earned a grade of B or better will apply toward degree, certification, or licensure requirements. A student may earn up to 6 credits for a thesis if this option is selected.

Thesis
Optional. Credits earned during the completion of a thesis may be applied toward the required four credits of electives.

Research Experience
Students who do not choose the thesis option are required to engage in a one-credit research experience. This experience may involve (but is not limited to) a small-scale original study, a project related to the on-going research of a faculty member, a clinical case study, or a literature review. Students may work individually or in pairs. The final product can be either a research paper or a poster session presentation.

Knowledge and Skills Acquisition (KASA) Assessment
All students will be responsible for completion of the Knowledge and Skills Acquisition (KASA) assessment, which assesses student attainment of learning outcomes in a variety of content areas. Students who are judged by program faculty and staff to be deficient in one or more content areas will be required to take additional coursework or clinical practica until their deficiencies have been satisfied.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Courses

Commun Sciences & Disorders (COMSDIS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

510 Speech-Language Pathology Services in the Schools. 3 cr. U/G. Study of the profession of speech-language pathology in the school environment, laws and regulations, m-team process, IEP development, current issues, practices, and programming. Prereq: sr st; cons instr

520 Counseling in Communication Disorders. 3 cr. U/G. Current theories in counseling and guidance, procedures designed specifically for use with the communicatively impaired. Opportunity for application of knowledge will be provided. Prereq: jr st; admis to major or cons instr

579 Special Topics in Communication Sciences and Disorders: (Subtitled). 1-3 cr. U/G. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated with change in topic to max of 6 cr. Prereq: jr st

580 Communication Problems of the Older Adult. 3 cr. U/G. Study of the impairments to the communicative process caused by physiological, environmental, and social psychological changes which come with aging. Prereq: sr st; ComSDis 460 or cons instr

620 Craniofacial Disorders. 2 cr. U/G. Genetic, embryological, anatomical and physiological aspects of craniofacial disorders, including cleft lip and palate; associated communicative disorders; diagnostic and therapeutic approaches for related speech-language problems. Prereq: ComSDis 350(P), 351(P), 480(P); cons instr

630 Communication Disorders in Multicultural Populations. 2 cr. U/G. Application of theoretical models and research perspectives to the assessment and treatment of communication disorders in children from multicultural populations. Prereq: sr st; cons instr

640 (590) Clinical Instrumentation for Speech-Language Pathologists. 3 cr. U/G. Hands-on laboratory experience with several clinically practical and non-invasive instrumentation systems for analyzing, monitoring, documenting normal as well as abnormal articulation, voice and prosody. Prereq: sr st; ComSDis 480(P); cons instr

650 Communication Assessment and Intervention for Persons with Disabilities. 3 cr. U/G. Application of various theories and models of communication assessment and intervention for persons with severe/profound disabilities. Prereq: sr st; cons instr

660 School-Age Language. 2 cr. U/G. Language disorders in older children and adolescents; application of developmental theory to assessment and intervention. Prereq: sr st; cons instr

670 (521) Advanced Procedures in Audiology. 3 cr. U/G. Masking, speech audiometry, acoustic immittance testing, differential diagnosis, audiological screening design, development and implementation, special pediatric and geriatric concerns; audiologic counseling and hearing aid orientation. Prereq: sr st; ComSDis 470(P); cons instr

680 Assessment and Intervention in Augmentative and Alternative Communication. 3 cr. U/G. Application of current research in augmentative and alternative communication (AAC) for assessment, prescription of AAC systems, and intervention planning for individuals with severe communication disorders Prereq: sr st; ComSDis 351(P) or cons instr

690 Cognitive Communication Disorders in Adults. 2 cr. U/G. Communication disorders related to traumatic brain injury and dementia in adults. Emphasis on neuropathology, symptomatology, assessment, and management. Prereq: sr st, ComSDis 460, and cons instr; or grad st

701 Research Design and Methods in Communication Sciences and Disorders. 3 cr. G. Introduction to design and implementation of quantitative research, including selection of research topics, literature searches, developing research hypotheses, hypothesis testing, and presentation of findings. Prereq: grad st; cons instr

702 Clinical Phonology and Articulation. 2 cr. G. Normal and disordered as-

pects of articulation and phonology. Emphasis on theoretical and practical considerations for clinical assessment and treatment. Prereq: grad st; cons instr

703 Voice Disorders. 2 cr. G. Diagnosis and treatment of hyperfunctional disorders; psychogenic voice disorders; organic diseases, trauma, and congenital disorders of the larynx; resonance disorders; and alaryngeal speech. Prereq: grad st; cons instr

704 Speech Fluency and Stuttering. 3 cr. G. Theory and research related to the nature and treatment of stuttering. Discussion of factors important to the clinical management of fluency in children and adults. Prereq: grad st; cons instr

705 Aphasia in Adults. 2 cr. G. Nature of aphasia and related communication disorders. Study of pertinent diagnostic and prognostic techniques and therapeutic procedures. Prereq: grad st; cons instr

706 Language Assessment and Intervention: Birth to 5 years. 2 cr. G. Application of various theoretical models and research perspectives to the assessment and treatment of children with language impairments. Prereq: grad st; cons instr

708 Evaluation and Diagnosis in Speech-Language Pathology. 2 cr. G. The diagnostic process in speech-language assessment: case histories and interviewing, formal and informal assessment, interpretation of results, and report writing. Prereq: grad st; cons instr

709 Evaluation and Management of Swallowing Disorders. 3 cr. G. Study of normal and abnormal swallowing across the lifespan, with emphasis on etiologies, clinical and instrumental evaluation techniques, and management. Prereq: grad st; ComSDis 705(P); cons instr

710 Motor Speech Disorders. 3 cr. G. Basic neurological substrates of the dysarthrias and apraxia, differential diagnosis and treatment of acquired and developmental communication disorders associated with apraxia and dysarthria. Prereq: grad st; ComSDis 703(P) & 705(P)

711 (801) Applied Speech Science. 3 cr. G. Advanced study of physiological, acoustical, and perceptual perspectives of normal and abnormal speech production mechanisms; laboratory experience with speech science instrumentation for research/clinical application. Counts as repeat of ComSDis 801. Prereq: grad st; cons instr

717 Special Populations in Communication Disorders. 2 cr. G. Seminar reviewing the current literature on selected populations of individuals with communication disorders and the implications of this literature on clinical practice. Prereq: grad st

720 (902) Advanced Clinical Practice in Speech-Language Pathology: (Subtitled). 1-3 cr. G. Supervised clinical practice with different speech and language problems in children and adults. Counts as a repeat of ComSDis 902. May be repeated with change in topic to 6 cr max. Prereq: grad st; cons instr

725 Speech/Language Services in Educational and Medical Environments. 3 cr. G. Methods and professional issues related to the speech-language pathologist employed in the educational and medical environments. Prereq: grad st, ComSDis 709(C), cons instr

726 (903) Speech-Language Pathology Externship in Medical Environments. 4 cr. G. Supervised clinical experience in medical and rehabilitation settings. Counts as a repeat of ComSDis 903. May be repeated to 8 cr max. Prereq: grad st; ComSDis 709(P); cons instr & grad advisor

727 (905) Speech-Language Pathology Externship in Educational Environments. 4 cr. G. Supervised clinical experience in educational environments. Counts as repeat of ComSDis 905. May be repeated to 8 cr max. Prereq: grad st; ComSDis 660(P) or 706(P); cons instr & grad advisor

728 (908) Instrumentation Laboratory. 1 cr. G. Hands-on experience with speech science instrumentation for acoustic analysis of voice, prosody, and nasal resonance. Counts as repeat of ComSDis 908. Prereq: grad st; ComSDis 801(P) & conc reg in ComSDis 902 (voice clinic) or cons instr

770 (906) Clinical Practice in Audiologic Assessment. 3 cr. G. Supervised clinical experience at the UWM Hearing Evaluation Center. Activities include audiologic assessment and (re)habilitation with children and adults (adult emphasis). Counts as repeat of ComSDis 906. Prereq: grad st; ComSDis 670(521); cons instr

771 (907) Clinical Practice in Audiologic (Re)Habilitation: (Subtitled). 2-3 cr. G. Supervised experience in audiologic (re)habilitation with pediatric or adult clients at on-campus or community sites. Counts as repeat of ComSDis 907. May be repeated to 4 cr max. Prereq: grad st; ComSDis 670(521) & 706 (for pediatric placements); cons instr

790 (effective 01/24/2005) Research and Thesis. 1-6 cr. G. Independent research and writing under the supervision of a graduate faculty member. Prereq: grad st; cons instr

791 Research Experience in Communication Sciences and Disorders. 1 cr. G. Supervised research in communication sciences and disorders under the direction of an approved mentor. Prereq: grad st; cons instr

799 (effective 01/24/2005) Independent Studies. 1-3 cr. G. Independent pursuit of a creative project designed by the student and supervised by a faculty or instructional academic staff member. Prereq: grad st; cons grad advisor

802 Seminar in Applied Phonology: (Subtitled). 1 cr. G. Specific topic and any additional prerequisites announced in the Timetable each time the course is offered. May be repeated w/chg in topic to 7 cr max. Prereq: grad st; cons instr

804 Seminar in Stuttering and Fluency: (Subtitled). 1 cr. G. Specific topic and any additional prerequisites announced in the Timetable each time the course is offered. May be repeated w/chg in topic to 7 cr max. Prereq: grad st; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

990 Research and Thesis. 1-6 cr. G. Independent research and writing under the supervision of a graduate staff member. Prereq: grad st; cons instr

999 Independent Studies. 1-3 cr. G. Independent pursuit of a creative project designed by the student and supervised by a graduate staff member. Prereq: grad st; cons grad advisor

CRIMINAL JUSTICE

Helen Bader School of Social Welfare

Degree Conferred: MS in Criminal Justice
Phone: (414) 229-2392
FAX: (414) 229-5311
E-mail: rlovell@uwm.edu
Web site: www.uwm.edu/Dept/CJ

The School of Social Welfare offers a master's program of study in criminal justice. The program is designed to educate students for leadership positions in the field of criminal justice. The program also provides a strong foundation for students anticipating advanced study at the doctoral level. The curriculum is designed to give criminal justice professionals a broad foundation for understanding criminal justice policy. Legal, organizational, political and behavioral frameworks are used to analyze the operation of the criminal justice system. Students are introduced to advanced knowledge on the nature and causes of crime, the justification and means of social control, the administration of the justice system, and the evaluation of criminal justice programs.

In addition to the general master's program in criminal justice, concentrations in corrections, law enforcement, and administration are also available. The corrections concentration is designed to prepare individuals to assume administrative/management positions in correctional settings. The law enforcement concentration is designed to prepare individuals to assume administrative/management positions in law enforcement settings.The administration concentration combines coursework in public administration and criminal justice to prepare students for administrative positions within the criminal justice system, focusing on management careers in police, courts, and corrections.

Graduate Faculty

PROFESSOR

Pope, Carl E., Ph.D., State University of New York-Albany
Stojkovic, Stan, Ph.D., Michigan State University

ASSOCIATE PROFESSORS

Brandl, Steven G., Ph.D., Michigan State University
Lovell, Rick D., Ph.D., Michigan State University, Chair

ASSISTANT PROFESSORS

Hassell, Kimberly D., Ph.D., University of Nebraska - Omaha
Pelfrey, William V., Ph.D., Temple University
Urbina, Martin, Ph.D., Western Michigan University

Master of Science in Criminal Justice

Admission
An applicant must meet Graduate School requirements plus these program requirements to be considered for admission:

- Undergraduate background in criminal justice, a related social science or other relevant educational experience.
- Submission of scores from the verbal and quantitative sections of the Graduate Record Examination or the Miller Analogies Test.
- Three letters of recommendation from persons who are familiar with the applicant's academic and/or employment record.
- Satisfactory completion of an introductory criminal justice course, a research methods course, and a statistics course.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Application
Application must be made to the Graduate School. Applicants are admitted to the program at the beginning of the fall, spring and summer sessions. For further information regarding the application process, please contact the Project Assistant of the Criminal Justice Programs at (414) 229-2392.

Major Professor as Advisor
The student must have a faculty advisor to advise and supervise the student's studies as specified in Graduate School regulations. At the time of admission, the Director of the Criminal Justice Programs will assign each student to a faculty advisor. Students who begin to work closely with a particular faculty member with expertise in their area of interest may request that this faculty member serve as their advisor. Students who pursue the Essay Option must choose a faculty member to serve as their major professor.

Credits and Courses
The Master of Science in Criminal Justice consists of a minimum of 33 graduate credits; 21 credit hours must be taken within the criminal justice program and the other 12 credit hours may be taken elsewhere in the School of Social Welfare or in other departments in the University with the consent of the student's advisor. Each student is required to take the Proseminar in each of three core areas (total of 9 credit hours) and pursue either Option A: Essay Option, or Option B: Non-Essay Option described below. The three core areas are:

- The Social Context of Crime and the Criminal Justice System
- Program Administration in Criminal Justice
- Programmatic Research in Criminal Justice

Option A: Essay Option
Students must complete the required proseminars and, as part of the 33 graduate credits required, must complete 3 credits of research and a graduate-level statistics course approved by the student's faculty advisor. Students planning to go into doctoral programs are strongly encouraged to pursue the essay option.

Essay — An acceptable essay must be written on the student's area of concentration.

Comprehensive Examination — The student must pass a final oral examination in defense of the essay.

Option B: Non-Essay Option
Students must complete the 33 graduate credits required, including the three proseminars.
Essay not required.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Concentrations
The following concentrations are offered: law enforcement, corrections, and administration. Students also may create their own concentration by choosing electives in an area of interest in consultation with their faculty advisor, or they may choose not to select a concentration.

No Concentration or Self-Created Concentration
A minimum of 33 credits including:

- 9 credits of required criminal justice proseminars (743, 756, 773)
- 12 credits of credits justice electives
- 12 credits of criminal justice or other social science electives.

Law Enforcement Concentration in Criminal Justice
All of the requirements noted above with regard to admission, application, major professor as advisor, essay/non-essay options, comprehensive examination and time limit apply to the law enforcement concentration. In addition, the following credits and courses must be completed.

A minimum of 33 credits including:

- 9 credits of required criminal justice proseminars (743, 756, 773).
- 9 credits of law enforcement sequence in criminal justice (795, 810, 820).
- 15 credits of criminal justice or social science elective courses (may include 990, Thesis or Research Project).

Corrections Concentration in Criminal Justice
All of the requirements noted above with regard to admission, application, major professor as advisor, essay/non-essay options, comprehensive examination and time limit apply to the corrections concentration. In addition, the following credits and courses must be completed.

A minimum of 33 credits including:

- 9 credits of required criminal justice proseminars (743, 756, 773).
- 9 credits of corrections sequence in Criminal Justice (800, 805, 830)
- 15 credits of criminal justice or social science elective courses (may include 990, Thesis or Research Project).

Administration Concentration in Criminal Justice
This concentration combines criminal justice approaches with those of public administration in studying criminal justice organizations. It is designed to meet the needs of students who intend to enter administrative and management positions within the criminal justice system.

All of the requirements noted above with regard to admission, application, major professor as advisor, essay/non-essay options, comprehensive examination and time limit apply to the administration concentration. In addition, the following credits and courses must be completed.

Minimum degree requirement is 33 graduate credits distributed as follows:

- 9 credits of required criminal justice proseminars (743, 756, 773)
- 12 credit of administration concentration (Pol Sci 452, 763, 789 and 958)
- 12 credits of criminal justice electives (may include 990, Thesis or Research Project).

Courses

Criminal Justice (CRM JST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-6 cr. U/G. Variable content (subtitle is area of concentration). Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work. Retakeable with change in topic to max of 9 cr. Prereq: jr st; acceptance for Study Abroad Prog

668 Conceptual Foundations of Law, Order, and Justice. 3 cr. U/G. Analysis of major concepts of law, order, and justice from ancient to modern times to help determine rationales for existence of a criminal justice system. Prereq: jr st or cons instr; Crm Jst 110(P)

671 Juvenile Justice. 3 cr. U/G. Structure of juvenile justice system -- police, courts, and corrections; analysis of structure of subsystems of the juvenile justice process; introduction to literature and research. Prereq: jr st or cons instr; Crm Jst 110(P)

674 History of Criminal Justice. 3 cr. U/G. Historical study of societal response to crime/disorder. Critical review of historical research on police, courts, prisons, criminal law, juvenile justice, and social disorder. Prereq: jr st, Crm Jst 110(P)

680 Jails. 3 cr. U/G. The primary purpose is to develop a comprehensive understanding of the role of the jail in contemporary society. Prereq: jr st; Crm Jst 110 (P) & 150(P)

723 Proseminar: Comparative Analysis of Formal Intervention Policies. 3 cr. G. An examination of criminal, civil and other intervention models noting both the underlying rationale and their impact upon social control and justice. Prereq: grad st

733 Planning and Policy in Criminal Justice. 3 cr. G. An examination of criminal justice planning and policy development. Prereq: grad st

740 Criminal Justice Policy. 3 cr. G. A study of the process by which policy decisions are selected and developed in political environments for implementation in the criminal justice system. Prereq: grad st

743 Proseminar: Administration of Criminal Justice Systems. 3 cr. G. An examination of criminal justice organizations from a public administration focus, integrating organizational theory and po-

litical theory for the analysis of criminal justice administration. Prereq: grad st

753 Proseminar: Program Planning, Evaluation and Research in Criminal Justice. 3 cr. G. - Prereq: grad st

756 Proseminar: Analysis of Criminal Justice Research. 3 cr. G. A study of the application of social science research methods to criminal justice issues. Prereq: grad st

770 Organizational Behavior and the Criminal Justice process. 3 cr. G. An examination of the criminal justice process (police, courts, and corrections), with particular concern for complex organizations & organizational systems. Prereq: grad st

773 Perspectives on Crime and the Criminal Justice System. 2-3 cr. G. An in-depth analysis of the etiology of criminal behavior; processes of becoming a criminal; patterns of criminal behavior; and policy and individual consequences of decriminalization. Not open to students who have cr in Soc Wrk 773, which is identical to Crm Jst 773. Prereq: grad st

775 Race, Crime and Criminal Justice. 3 cr. G. A study of crime and criminal justice issues as they impact major racial groups such as Blacks, American Indians, and Hispanics Prereq: grad st

793 Issues in Correctional Practice and Policy. 3 cr. G. An examination of the operational, legal, and philosophical issues concerning sentencing, institutional corrections, probation and parole, and newer forms of community corrections. Prereq: grad st

794 Information Systems and Data Analysis in Criminal Justice. 3 cr. G. Computer utilization of criminal justice information systems is explored and analyses conducted for criminal justice professionals in various roles. Prereq: grad st

795 Issues in Law Enforcement Practice and Policy. 3 cr. G. An examination of police practice in a democratic society from an operational, legal, and sociological perspective Prereq: grad st

800 Issues in the Application of Correctional Philosophy. 3 cr. G. An examination of historical and contemporary philosphy, issues and applications of criminal justice and social work professions in correctional treatment and practice Prereq: grad st

805 Correctional Administration and Programming. 3 cr. G. An examination of administrative and programmatic issues facing adult corrections, including institutional corrections, probation, parole, and community - based corrections Prereq: grad st

810 Police Administration. 3 cr. G. An application of management principles to the police organization. Prereq: grad st

820 Police and the Multicultural Community. 3 cr. G. A study of the critical issues facing police officers and administrators in relation to policing a diverse society, with particular emphasis on training leadership, minorities and women police officers, and police - community relations. Prereq: grad st

830 Intervention Strategies for Correctional Clients. 3 cr. G. A review and analysis of intervention approaches and programs used with correctional clients, both juvenile and adult, with emphasis on diversion, prevention, and rehabilitation strategies. Prereq: grad st

970 Readings in Criminal Justice Research: (Subtitled). 3 cr. G. Variable content research oriented course involving systematic analysis and investigation of criminal justice topics. May be retaken to max of 9 cr. Prereq: grad st; cons instr

990 Thesis or Research Project. 1-3 cr. G. - May be repeated once for cr. Prereq: grad st; writ cons instr & coord grad prog

999 Independent Reading in Criminal Justice. 1-3 cr. G. Work suited to individual graduate students arranged. Prereq: grad st;cons instr & coord Grad Prog

CULTURAL FOUNDATIONS OF EDUCATION

School of Education

Degree Conferred: MS in Cultural Foundations of Education
Phone: (414) 229-4323
FAX: (414) 229-3700
Web site: www.uwm.edu/Dept/EPCS

The Department of Educational Policy and Community Studies offers a master's program for educators who wish to deepen their knowledge base in dealing with urban issues of educational policy and practice. The graduate study enhances participants' ability to analyze education in societal and community contexts as well as to analyze conflicting assumptions underlying crucial issues.

A core of four courses provides sociological, historical, philosophical and research frames of reference. Students select Educational Foundations or Multicultural Education as an area of concentration, although probing the complexities and issues of cultural diversity is a goal of each area. Students are encouraged to develop and understand their own frameworks of values and theoretical perspectives as applied to the realities of urban education. A faculty advisor will assist the student through the program, balancing flexibility and structure according to professional needs.

Graduate Faculty

PROFESSORS

Epps, Edgar, Ph.D., Washington State University
Harris, Ian, Ed.D., Temple University, Chair

ASSOCIATE PROFESSORS

Kailin, Julie, Ph.D., University of Wisconsin-Madison
Schutz, Aaron, Ph.D., University of Michigan

ASSISTANT PROFESSORS

Bonds, Michael, Ph.D., University of Wisconsin - Milwaukee
Farmer-Hinton, Raquel, Ph.D., University of Illinois-Urbana/Champaign
Swaminathan, Raji, Ph.D., Syracuse University
Tapia, Javier, Ph.D., Arizona State University

Master of Science in Cultural Foundations of Education

Admission
An applicant must meet Graduate School requirements plus the following departmental requirements to be considered for admission to the program:

- Submission of two letters of recommendation from individuals who can testify to the applicant's academic potential.
- Written statement of educational and professional goals with desired area of concentration.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Credits and Courses
The program in Cultural Foundations of Education requires a minimum of 30 graduate credits, divided among the following: required core courses (12); focus work (minimum 9 graduate credits) and electives. A minimum of 6 credits beyond the four core courses needs to be in graduate courses, 700 level and above.

Core Courses
The required core for all students consists of the following 12 credits: EdPol 705 Sociology of Education (3), EdPol 710 Research Methods in Cultural Foundation (3), EdPol 740 Modern Philosophies of Education (3), and EdPol 750 History of American Education (3). Each of these required courses has a set of major questions that guide the instructor and the students.

Focus Work in Cultural Foundations
In addition to the core courses, Cultural Foundations majors must complete a minimum of 9 credits in the Department of Educational Policy and Community Studies that may be focused in the following areas: alternative education, multicultural education, peace education, urban education, and educational policy. They will select this focus with the help of an advisor.

Electives
In order to individualize the program, a maximum of 9 graduate credits of electives is selected with the advisor to enhance the specific professional goals of the student. These credits may be selected from courses within the Department, courses in other departments in the School of Education, or courses outside of the School of Education. A maximum of 3 credits of Independent Reading and 3 credits of fieldwork may be included in the program.

Paper or Thesis
All students in the Cultural Foundations of Education program must complete either a paper or a thesis in addition to an exit interview as part of their degree requirements. The selection of either the thesis or the paper should be made by the student in consultation with his/her advisor.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Courses

Educ Policy/Community Studies (ED POL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

500 Sociology and Policy of Urban Communities and Schools. 3 cr. U/G. Selected contemporary social issues analyzed for their bearing on urban communities and schools. Prereq: jr st

501 (effective 01/24/2005) Seminar in Philosophy of Community Change. 3 cr. U/G. Advanced study of significant philosophers of change and critical evaluation of the role of personal values in social change efforts. Prereq: jr st or cons instr

503 (effective 01/24/2005) Community-Based Organizations. 3 cr. U/G. Overview of community based organizations, their structures, functions, & administration. Students will also be taught proposal writing skills. Prereq: jr st or cons instr

506 Research Techniques for Community Organizers and Community Educators. 3 cr. U/G. Introduction to basic research techniques and the specific skills needed for the community organizer and/or educator. Prereq: jr st

507 Action Research on Milwaukee Institutions. 3 cr. U/G. Examination and analysis of the organization, philosophy, and history of specific Milwaukee institutions. Emphasis placed on how these institutions affect the lives of community residents and appropriate alternatives to current arrangements. Prereq: jr st or cons instr

508 Problems of Change in Community Organizations. 3 cr. U/G. Advanced training in community organizing with reflective paper. Prereq: Ed Pol 111(P) & cons instr

510 Foundations of Human Relations: (Subtitled). 3 cr. U/G. Analysis of selected concepts and resources bearing on human relations training. Various approaches, e.g., Harvard case studies, to human relations will be evaluated. Prereq: jr st

511 Workshops in Foundations of Human Relations: (Subtitled). 1-3 cr. U/G. Workshop in selected concepts and resources bearing on human relations in institutions. Various approaches to field experience and in-class experience, e.g. observation, institutional analysis. Retakeable to max of 6 cr. Prereq: jr st

512 Context and Foundations of Educational Policy. 3 cr. U/G. Defines educational policy, studies philosophical, historical, and social contexts of educational policy, examines context of educational policy, and presents contemporary educational concerns. Prereq: jr st

520 Peace Education. 3 cr. U/G. This course discusses how education and community education can address the threat of nuclear weapons, and prepares students to teach about war and peace. Prereq: jr st or cons instr. Minimum of 9 hrs Soc Sci division course work

521 Nonviolence in Education. 3 cr. U/G. An overview of different theories of nonviolence and an examination of their applications in educational setting. Prereq: jr st; Ed Pol 520(R); Psych 201(R) or cons instr

522 Abusive Relationships: Community Problems, Community Solutions. 3 cr. U/G. The origins of relationship abuse, the legal aspects of domestic violence, and the healing process for people hurting in relationships. Prereq: jr st; Ed Pol 520(P) or cons instr

530 Urban Education: Foundations. 3 cr. U/G. Application of basic social science concepts to study of education in the urban setting. Prereq; jr st

531 Alternative Schools. 3 cr. U/G. Examine the alternative schools movement. Counts as repeat of Ed Pol 330. Prereq: jr st

532 Male Identity: Education and Development. 3 cr. U/G. Contribution of schools in forming male identity. Changing expectations of men in work, the family and society. Prereq: jr st

533 Educating Black Males-Theories, Methods and Strategies. 3 cr. U/G. This course will develop skills and strategies to affect changes in the lives of black males in the school system, k through 12 grade. Prereq: jr st; Ed Pol 112 or 375 or equiv or teacher certification

534 The Student at Risk (Causes). 3 cr. U/G. Helps teachers to identify and understand the personal, social, cultural and community contexts which contribute to the at-risk status of public school students. Prereq: jr st

535 Educating At-Risk Students. 3 cr. U/G. Development of skills and techniques to enable teachers to be instructionally effective with at-risk students. Prereq: jr st; Ed Pol 534(P)

541 Wisconsin Juvenile Justice System and the Law for School Personnel. 1 cr. U/G. Provides students and school personnel with knowledge of Wisconsin juvenile justice system, and legal responsibilities of all school personnel, emphasizing current code. Prereq: jr st

545 Philosophical Foundations of Counseling. 3 cr. U/G. Examination of basic issues and schools of thought in counseling for underlying assumptions, presuppositions, philosophical dilemmas, and unexamined trends. Prereq: one counseling course or cons instr

550 Comparative Education. 3 cr. U/G. Survey of foreign school systems with attention to cultural setting and major purposes. Prereq: jr st

560 Education and Hispanics. 3 cr. U/G. Examination of the educational experiences of Hispanics in schools in the USA. Prereq: jr st

561 Education Issues in American Indian Communities. 3 cr. U/G. Unique political-legal, social-cultural contexts of Native Education, intergovernmental involvement and role in addressing social/cultural and developmental needs of tribal societies. Prereq: jr st or const instr

579 Current Topics in Cultural Foundations of Education: (Subtitled). 1-6 cr. U/G. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr, including cr earned under Ed Pol 779. Prereq: jr st

580 An Overview of Child/Youth Care. 3 cr. U/G. Survey of skills, theories and approaches of the youth work field. Emphasis on interactive, developmental and relationship-building approaches in a variety of settings. Ed Pol/ExcEduc/Soc Wrk 580 are jointly offered & count as repeats of each other. Prereq: jr st or cons instr

581 Youth Work Practice. 3 cr. U/G. Applies the skills, theories and approaches of the youth work field to settings such as schools, community centers, and residential programs. Ed Pol/ExcEduc/Soc Wrk 581 are jointly offered & count as repeats of each other. Prereq: jr st; Ed Pol/ExcEduc/Soc Wrk 580(P); or grad st or cons instr

582 Operations Management in Early Childhood Programs. 3 cr. U/G. An introduction to systems and operations theory. Students explore and apply management concepts, systems, policies, and procedures to improve the quality of programs and services. Jointly offered with & counts as repeat of Ad Ldsp 582. Prereq: jr st; Ad Ldsp 581(P); or cons instr

584 Early Childhood Programs and the External Environment. 3 cr. U/G. Exam-

ines external influences that impact day-care. Students explore issues of culture, community, diversity, and policy as well as technical issues related to program quality. Prereq: jr st & Ad Ldsp 581(P); or cons instr

585 Supervised Practicum in Child and Youth Care. 2-4 cr. U/G. Supervised practicum in residential agencies and settings which utilize child and youth care workers and serve behaviorally, cognitively and/or physically disabled youth. Ed Pol/ExcEduc 585 are jointly offered & count as repeats of each other. Prereq: jr st; Ed Pol/ExcEduc/Soc Wrk 580(P), or grad st; cons instr

610 Reproduction of Minority Communities. 3 cr. U/G. Analysis of the social, economic, and cultural forces behind the formation and reproduction of minority and disadvantaged communities in the United States. Jointly offered w/& counts as repeat of Sociol 610. Prereq: jr st; any Sociol 100-level course

620 History of the Education of African Americans. 3 cr. U/G. Study of the history, biographies, trends, cultural influences, and movements in the education of African Americans: Africa to slavery to the present. Comparison with 'white education.' Prereq: jr st; Ed Pol 112 or 375 or equiv

621 History of Native Education and Policy Development. 3 cr. U/G. Historic policy development affecting the education of American Indians including the development of schools and the relationship of education to federal Indian policy. Prereq: jr st or cons instr

625 Race Relations in Education. 3 cr. U/G. Study and analysis of historical and theoretical bases of racism/race relations in america and their influences on contemporary educational policies and practices. Prereq: jr st

660 (effective 01/24/2005) History of Western Education. 3 cr. U/G. Chronological narrative examining educational systems in western countries through the development of various civilizations from ancient Egypt to Europe. Prereq: jr st

660 History of Western Education. 3 cr. U/G. - Prereq: jr st

688 Fieldwork in Multicultural Education. 1-6 cr. U/G. Fieldwork in multicultural settings appropriate for cultural research, analysis and study. Individualized requirements and evaluation criteria to be determined by faculty on individualized bases. May be retaken to 6 cr max. Prereq: jr st; cons instr

698 Fieldwork in International Education. 1-6 cr. U/G. Fieldwork in intercultural settings appropriate for cultural research, analysis and study. Requirements and evaluation criteria to be determined by faculty on individualized basis. Retakable to 6 cr max. Prereq: jr st; cons instr

705 Sociology of Education. 3 cr. G. Focus on educational institutions as social systems within community and societal contexts; dimensions of race/ethnicity, socioeconomic class and gender. Prereq: grad st

710 Research Methods in Cultural Foundations. 3 cr. G. Critical examination of historical, philosophical, sociological and comparative research methods and strategies and their implications for educational decision making. Prereq: grad st

740 Modern Philosophies of Education. 3 cr. G. Analysis of competing assumptions about the aims and means of contemporary education; exploration of beliefs about values and knowledge within cultural contexts. Prereq: grad st

750 History of American Education. 3 cr. G. Study of consensus and conflict in the ideas and issues shaping education in the changing u.s. society; includes an emphasis on the education of immigrants, minorities and women in and outside of mainstream society. Prereq: grad st

779 Current Topics in Cultural Foundations of Education. (Subtitled). 1-3 cr. G. Variable content course. Specific topic announced in schedule of classes. May be retaken with change in topic to max of 9 cr. Prereq: grad st

799 Independent Reading. 1-3 cr. G. For benefit of grad students unable to secure needed content in regular courses. Prereq: grad st; cons instr

801 (831) Seminar in Social Foundations of Education. 3 cr. G. Intensive examination of the cultural dimensions of education from philosophical, historical and sociological perspectives; emphasis on current interdisciplinary literature concerning cultural diversity. Specific cultural focus may vary. Prereq: Ed Pol 705(P) or 740(P) or 750(P) or cons instr

805 Sociology of Education: Seminar. 3 cr. G. Evaluation of theory, scholarly research, and issues in the sociology of education, with emphasis on empirical studies of social stratification and social mobility. Prereq: Doctoral st or cons instr

822 Global Educational Studies. 3 cr. G. Study of worldwide growth in learning needs and how to meet them; inequalities between and within countries; and proposed reforms, innovations and technologies. Prereq: grad st

823 Multicultural Education. 3 cr. G. Study of cultural diversity and its relationship to educational theory and practice. Emphasis upon developing and analyzing programs with a multicultural emphasis. Prereq: grad st; Ed Pol 705(P) or 750(P) or cons instr

830 A Study of Educational Classics. 3 cr. G. Reading and discussion of educational classics. Prereq: grad st; Ed Pol 740 or 750 or cons instr

833 Seminar in Multicultural Education. 3 cr. G. Emphasis upon devising an individually defined study of a specific educational issue or practice to encourage development of multicultural education. Prereq: grad st; Ed Pol 688(P) or 823(P) or cons instr

840 Seminar in Educational Theory. 3 cr. G. Examination of prominent theories of education and society and application to current educational issues and contexts. Prereq: Doctoral st or cons instr

850 Seminar in History of American Education. 3 cr. G. Historical background of contemporary debates and controversies in American education. Prereq: Doctoral st or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

897 Seminar in the Philosophy and History of Adult Education. 3 cr. G. Philosophical foundations related to the historical movement of adult education and implications for future directions. Prereq: grad st; Ad Ldsp 657 or cons instr

990 Research or Thesis. 1-3 cr. G. - Prereq: grad st

999 Independent Reading. 1-3 cr. G. Variable content course. Retakeable to max of 9 cr. Prereq: master's degree

Cross-listed Course

The following courses may be used to fill certain curricular requirements of the graduate program in Cultural Foundations of Education.

Library and Information Science 801 Issues in Education & Information Technology. 3 cr, G.

CURRICULUM AND INSTRUCTION

School of Education

Degree Conferred: MS in Curriculum and Instruction
Phone: (414) 229-2524
FAX: (414) 229-5571
Web Site: www.uwm.edu/Dept/CNI

The Department of Curriculum and Instruction offers a graduate program of study in curriculum and instruction, including choices of concentration in three Focus Areas: Subject Area, Instructional Level Area and Cross-Curricular Area.

The Department also cooperates with the Department of Administrative Leadership in the Specialist Certificate Program with an emphasis in reading.

Under the auspices of the PhD program in Urban Education, the Department offers doctoral level training with a designated specialization in Curriculum and Instruction.

Opportunities for study abroad are available each year, usually during the summer session. Recent study programs have been held in China, West Germany, England, Denmark, Poland, Mexico, and Australia. For information, contact the Education Outreach Office , Room 579, Enderis Hall.

Graduate courses in the Department of Curriculum and Instruction are available under two curricular areas: Curriculum and Instruction and Physical Education.

Graduate Faculty

DISTINGUISHED PROFESSOR

Haberman, Martin, Ed.D., Teachers College, Columbia University

PROFESSORS

Huinker, DeAnn M., Ed.D., University of Michigan
Kepner, Henry, Ph.D., University of Iowa
Pugach, Marleen C., Ph.D., University of Illinois
Ryder, Randall, Ph.D., University of Minnesota
Schug, Mark, Ph.D., University of Minnesota

ASSOCIATE PROFESSORS

Berg, Craig, Ph.D., University of Iowa
Cross, Beverly E., Ph.D., Ohio State University
Curtain, Helena, Ph.D., University of Wisconsin-Milwaukee
File, Nancy, Ph.D., Purdue University
Post, Linda, Ph.D., Syracuse University, Chair
Pucci, Sandra, Ph.D., University of Southern California
Smith, Cyrus, Ed.D., Indiana University

ASSISTANT PROFESSORS

Antrop-Gonzalez, Rene, Ph.D., Pennsylvania State University
Chapman, Thandeka, Ph.D., University of Wisconsin-Madison
Longwell-Grice, Hope, Ph.D., University of Delaware
Mertzman, Tania, Ph.D., University of South Florida
Pasternak, Donna, Ph.D., New York University
Posnanski, Tracy, Ph.D., University of Wisconsin-Milwaukee
Saffold, Felicia, Ed.D., Cardinal Stritch University

Master of Science in Curriculum and Instruction

Admission
An applicant must meet Graduate School requirements to be considered for admission to the program.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

An applicant lacking the required grade point average (2.75 on a 4.00 scale) may be considered for admission on probation.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair. Students w ho have not completed a Proposed Program of Study Form with their advisor, and filed it with the Department by the end of the semester in which they are admitted, will not be allowed to register for the next term.

Students may elect either of two alternatives: Plan A or Plan B.

PLAN A

Credits and Courses
The student is required to take 12 credits in Curriculum and Instruction core areas, 18 credits in a focus area, and 3 credits in the Master's Seminar in Curriculum and Instruction.

Curriculum and Instruction Core Area. The core areas are curriculum, instruction, and urban education. The introductory course to the core area is: 705 Curriculum and Instruction as a Field of Inquiry. Additional core courses are:

701 Curriculum Planning (Curriculum)
714 Analysis of Instruction (Instruction)
716 Urban Education: Teaching (Urban Education)

Other courses used to fulfill this requirement must be approved by the student's advisor.

Focus Areas. In consultation with an advisor, the student develops a focus area. Three focus areas are currently offered:

1. *Subject Area*. Examples are science education, mathematics education, social studies education, reading education.
2. *Instructional Level Area*. Examples are early childhood education, elementary education, junior high/middle level education, secondary education.
3. *Cross-Curricular Area*. Examples are urban teaching, curriculum planning, instruction improvement, reading K-12.

Students may take coursework in the Department of Curriculum and Instruction, other departments in the School of Education, and other departments and schools of the University. Students in subject or instructional level focus areas may elect coursework in their particular academic disciplines. However, at least 18 of each student's credits must be taken in Department of Curriculum and Instruction courses.

Minimum degree requirement is 33 credits including 12 credits in curriculum and instruction core areas: 18 credits in a focus area approved by the student's advisor, and completion of Curriculum and Instruction 800 (Master's Seminar in Curriculum and Inst ruction), 3 credits.

Thesis
None required.

Comprehensive Examination
Neither a final written nor oral comprehensive examination is required. Students demonstrate their proficiency through satisfactory completion of the Master's Seminar in Curriculum and Instruction.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

PLAN B

Credits and Courses
The student is required to take 12 credits in Curriculum and Instruction core areas, 15 or 18 credits in a focus area, and 3 or 6 credits of research or thesis, for a total of 33 credits.

Curriculum and Instruction Core Area. The core areas are curriculum, instruction, and urban education. The introductory course to the core area is: 705 Curriculum and Instruction as a Field of Inquiry. Additional core courses are:

701 Curriculum Planning (Curriculum)
714 Analysis of Instruction (Instruction)
716 Urban Education: Teaching (Urban Education)

Other courses used to fulfill this requirement must be approved by the student's advisor.

Focus Areas. In consultation with an advisor, the student develops a focus area. Three focus areas are currently offered:

1. *Subject Area*. Examples are science education, mathematics education, social studies education, reading education.
2. *Instructional Level Area*. Examples are early childhood education, elementary education, junior high/middle level education, secondary education.
3. *Cross-Curricular Area*. Examples are urban teaching, curriculum planning, instruction improvement, reading K-12.

Students may take coursework in the Department of Curriculum and Instruction, other departments in the School of Education, and other departments and schools of the University. Students in subject or instructional level focus areas may elect coursework in their particular academic disciplines. However, at least 18 of each student's credits must be taken in Department of Curriculum and Instruction courses.

Minimum degree requirement is 33 credits including 12 credits in curriculum and instruction core areas, 15 or 18 credits in a focus area approved by the student's advisor, and completion of a master's paper or thesis (890 Research or Thesis), 3 or 6 credits.

Thesis
A thesis or master's paper is required.

Comprehensive Examination
Neither a final written nor oral comprehensive examination is required. Students demonstrate proficiency by satisfactorily completing a master's paper or thesis and defending it before a quorum of the Graduate Committee of the Department.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Teacher Certification

Graduate students seeking initial teacher certification or added certification can arrange their master's program so that a portion of their credits earned toward a master's degree can also serve as partial fulfillment of Certification requirements. The students must also make separate application for admission to the certification program through the certification office in the School of Education, Enderis Hall, Room 220. Please note: Degree and certification requirements may differ. The following certification programs are available:

- Bilingual Education
- Early Childhood Education (Pre-K through 3)
- Elementary Education (1-6; 1-9)
- English as a Second Language
- Secondary Education (6-12)
- Reading Teacher K-6
- Reading Specialist

Information about the specific subject areas for certification programs listed above may be obtained from the UWM Undergraduate Bulletin, the Certification Office (Enderis Hall, Room 220) or the Department of Curriculum and Instruction (Enderis Hall, Room 310).

Certification Programs in Reading

Reading Teacher K-12
Requirements for a Wisconsin Reading Teacher license:

1. Bachelor's Degree.
2. Eligibility to hold a Wisconsin license to teach.
3. Two years of successful regular classroom teaching experience.
4. 21-24 semester credits with at least 12 of the credits taken beyond the bachelor's degree level listed below. Credit for prior course work may be considered for courses taken within five (5) years of initial enrollment.

   CurrIns 544 Improving the Teaching of Reading: (Subtitle) ***or*** CurrIns 643 Teaching Developmental Reading
   CurrIns 744 Secondary Developmental Reading Practicum

CurrIns 747 Diagnosis and Remediation of Reading Difficulties *and* CurrIns 748 Practicum in Reading Diagnosis and Treatment: Elementary ***or*** CurrIns 544 Improving the Teaching of Reading: Early Reading Empowerment, Part I and CurrIns 544 Improving the Teaching of Reading: Early Reading Empowerment, Part II
CurrIns 799 Independent Reading (1-3 cr., based on student needs)
CurrIns 746 Advanced Reading Education or CurrIns 846 Seminar in Developmental Reading: (Subtitle)
CurrIns 545 Reading in the Content Areas

One of the following:
CurrIns 501 Developing Language & Cognitive Skills in Early Childhood Education
CurrIns 529 Introduction to Program & Curriculum Evaluation
CurrIns 649 Children's Literature
CurrIns 650 Reading Interests of Adolescents
CurrIns 651 Books and Pictures for the Young Child
CurrIns 653 Children's Literature: The Past Five Years
CurrIns 794 Teaching Gifted Children ***or*** CurrIns 795 Developing Curriculum for Gifted Children

Reading Teacher K-6
The program and course requirements are equivalent to the Reading Teacher K-12 requirements with the deletion of one course, CurrIns 744 Secondary Developmental Reading Practicum.

Reading Specialist
Requirements for a Wisconsin Reading Specialist license:

1. A Reading Teacher license.
2. A Master's Degree or equivalent.
3. The following coursework:

   CurrIns 849 Guiding and Directing School Reading Programs
   Ad Ldsp 702 Leadership in Educational Organizations ***or*** Ad Ldsp 712 Instructional Leadership
   CurrIns 700 Fieldwork in K-12 Reading Programs
   CurrIns 846 Seminar in Developmental Reading
   CurrIns 799 Independent Reading
   One of the following not taken above:
   CurrIns 715 Guiding Instructional Improvement
   CurrIns 804 Practice in Curriculum Planning
   Ad Ldsp 702 Leadership in Educational Organizations ***or*** Ad Ldsp 712 Instructional Leadership

Doctor of Philosophy in Urban Education

Specialization in Curriculum and Instruction
Under the auspices of the doctoral program in Urban Education, the Department of Curriculum and Instruction provides doctoral training with a specialization in Curriculum and Instruction. Curriculum and Instruction provides program emphasis in a content area (e.g. reading), education level (e.g. early childhood), a general area (e.g. curriculum theory), or special area (e.g. guiding instructional improvement). Prospective doctoral students wishing to specialize in Curriculum and Instruction must first be admitted to the Urban Education Doctoral Program. Admission and general program requirements can be obtained from the Director of Doctoral Studies in Urban Education. This program is described in detail in the Urban Education section of this Bulletin.

Courses

Curriculum & Instruction (CURRINS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

500 Workshop in Curriculum and Instruction: (Subtitled). 1-6 cr. U/G. Development of teacher growth through problem solving, self-expression, group thinking, and individual study. Individuals or small groups work on problems growing out of their professional needs. Specific topics and any additional prerequisites will be announced in Timetable each time the course is offered. May be retaken with change of topic. Prereq: jr st or grad st

501 Developing Language and Cognitive Skills in Early Childhood Education. 3 cr. U/G. Current theories in language and cognitive development from birth to age eight. Emphasis on application of theories to developmentally appropriate early childhood practices. Prereq: jr st; admis to School of Educ or grad st

502 Developing Early Reading and Writing. 3 cr. U/G. Study of literacy patterns of preschool and kindergarten children and how to support their development. Observations and field work are required. Prereq: jr st; CurrIns 501; admis to School of Educ or grad st

503 Language Assessment in the Bilingual Classroom. 3 cr. U/G. Approaches to assessment of first and second language learning including rationale, traditional and alternative strategies, interpretation of results for placement, instruction, and program evaluation. Prereq: jr st; Ed Psy 320; admis to School of Educ or grad st

504 Teaching Reading and Writing in Early Childhood: The Primary Years. 3 cr. U/G. Integrating reading and writing instruction in grades 1-3, based on a child-centered, 'whole language' approach. Practicum included. Prereq: jr st; CurrIns 343 or 502 or cons instr

505 Home-School Relations. 1-4 cr. U/G. Theory and strategies for developing effective family-school relationships, with a focus on urban issues. Topics include: teacher-family communications, family education and support, community resources. Prereq: jr st; admis to student teaching or grad st or cons instr

506 Teaching Reading, Language Arts and Children's Literature in Primary Grades. 6 cr. U/G. Integrates reading, language arts and children's literature for diverse learners. Focuses on children in emergent, beginning and consolidating stages of literacy development. Conc field experience. Prereq: jr st & admis to School of Educ; or grad st

507 Teaching Reading, Language Arts and Adolescent Literature in Middle Grades. 6 cr. U/G. Integrates reading, language arts and adolescent literature for diverse learners. Focuses on children in consolidating accomplished and advanced stages of literacy development. Conc field experience. Prereq: jr st & ad-

mis to School of Educ; CurrIns 506(P) or grad st

508 Language and Urban Schooling. 3 cr. U/G. General overview of the major issues in both first and second language acquisition, and the relevant implications for urban schooling. Prereq: jr st & admis to School of Educ, or grad st; or cons instr

509 Reading and Social Welfare. 1 cr. U/G. Reading process, characteristics of effective reading programs and bibliotherapy as they relate to the work of school social workers. Prereq: admis to Helen Bader School of Social Welfare

510 Cooperative Strategies for Pre and Early Adolescents. 1-3 cr. U/G. Teaching and management strategies consistent with fostering productive learning environments for pre and early adolescents. May be retaken to max of 3 cr. Prereq: admis to School of Educ, or grad st

516 Field Experience/Student Teaching in Middle School. 2-6 cr. U/G. Implementation of strategies learned in the 6-12 teacher education program May be taken to max of 6 cr. Prereq: admis to School of Educ or grad st

518 (328) Science Methods I: Middle/Secondary Methods and Fieldwork. 3-6 cr. U/G. The objectives, curriculum, instructional strategies, and assessment of middle/secondary school science. Not retakeable for cr. Prereq: admis to School of Educ, or grad st

519 (329) Science Methods II: Middle/Secondary Methods and Fieldwork. 3-6 cr. U/G. The objectives, curriculum, instructional strategies, and assessment of middle/secondary school science. Includes fieldwork in middle/secondary school. Not retakeable for cr. Prereq: admis to School of Educ or grad st

520 Developing Mathematical Thinking in Young Children. 3 cr. U/G. Teaching and learning of mathematics, grades pre k-3. Emphasis on problem-solving, communication, developmentally appropriate experiences with whole numbers, fractions, geometry, measurement, and data analysis. Prereq: jr st; teaching experience

522 Economic Education. 3 cr. U/G. Approaches to teaching economic principles. Applications of economic reasoning to current problems. Curricular implications for school programs, grades K-12. Prereq: jr st

523 Current Issues and Practices in the Teaching of Social Studies. 3 cr. U/G. Examination of current issues in social studies curriculum reform. Emphasis on the latest research and teaching practices. Prereq: CurrIns 323 or grad st

524 Community Resources Workshop. 1-6 cr. U/G. Designed to give participants greater knowledge and deeper understandings of life and work in the community area; focusing on social and economic resources and special areas of interest. Prereq: jr st & cons dept

525 Environmental Resources Workshop: (Subtitled). 1-3 cr. U/G. Methods and curriculum for teaching about environmental problems. May be retaken with change in topic to max of 6 cr. Prereq: jr st; topic-specific prereq will be published in the Timetable May be retaken with change in topic to max of 6 cr. Prereq: jr st

527 Science in the Elementary School. 3 cr. U/G. Study of science curriculum materials; instructional procedures; analysis of pupil learning modes; experience with science equipment; teaching of science as inquiry; individual problems and projects. Prereq: jr st & admis to School of Educ; or grad st

529 Introduction to Program and Curriculum Evaluation. 3 cr. U/G. Examinations of various models and approaches to program and curriculum evaluation. Application of the models to a variety of educational programs will be emphasized. Not open to students who have cr in Ed Psy 529, which is identical to CurrIns 529. Prereq: jr st

530 Workshop in Computer Instruction in the Schools. 3 cr. U/G. Examination, construction and evaluation of computer extended instruction. Emphasis on participant development of curriculum materials and instructional procedures centered on pupil development. Not open to students who have cr in Ed Psy 530, which is identical to CurrIns 530. Prereq: jr st; cons instr

531 Teaching of Computer Science. 3 cr. U/G. Methods and curriculum for the teaching of computer science in the secondary schools. A brief introduction to management of a computer laboratory. Prereq: jr st & admis to School of Educ & CompSci 351; or grad st

532 (333) Teaching of Mathematics: Secondary. 3 cr. U/G. Methods and curriculum for the teaching of mathematics in middle and high schools. Prereq: jr st; admis to School of Educ

533 Foreign Language Workshop. 1-4 cr. U/G. Analysis of current developments and changes in foreign language education. Critical examination of specific problems, conflicts, and trends -e.g. in teaching basic skills, teaching culture and literature, use of audio-visual materials and the language laboratory; the effect of current competition and foreign language student teaching supervision. Study of curriculum revision and of instructional materials. Individual curriculum projects or research possibilities. Prereq: jr st & cons dept. Not available for grad cr

535 Methods and Techniques in Affective Education. 1-3 cr. U/G. Basic principles and practical techniques for instruction in the affective domain are modeled and practiced. Although process oriented, the course does not neglect theoretical frameworks. Prereq: jr st

541 Principles and Methods of Teaching English as a Second Language: K-12. 1-4 cr. U/G. Techniques of introducing ESL at the K-12 level. Teaching of basic language skills, especially listening comprehension and speaking. Curriculum materials and current literature in ESL. Micro teaching provided. Prereq: jr st

542 History of Bilingual Education in the United States. 3 cr. U/G. Overview of the historical, political, legal, and social context of bilingual education in the united states from the country's beginnings through the present. Prereq: jr st

543 Developing Literacy Skills in the Bilingual Classroom. 3 cr. U/G. Stresses the practical application of theory and research on language development in a bilingual setting. The development of primary language skills is emphasized. Prereq: jr st; CurrIns 343, 545, or 643; admis to School of Educ, or grad st

544 Improving the Teaching of Reading: (Subtitled). 1-3 cr. U/G. Focuses on instructional problems of teachers in teaching developmental reading. Specific topic and any additional prerequisites will be announced in the Timetable each time

the course is offered. May be retaken with change in topic to max of 6 cr. Prereq: jr st; teaching experience

545 Reading in the Content Areas: Middle, Junior, and Senior High School. 2-3 cr. U/G. Survey of reading process and developmental reading in the middle, junior and senior high school. Emphasis on application of instructional techniques relating the use of reading within subject matter fields. Prereq: jr st; admis to School of Educ or grad st

546 Content Area Instruction in the Bilingual Classroom. 3 cr. U/G. Emphasizes three aspects of teaching in a bilingual classroom; 1) native language instruction; 2) english as a second language; 3) second language for english speakers. Prereq: jr st; admis to School of Educ & bilingual prog, or grad st; cons instr

547 Curricular Applications of the Internet. 3 cr. U/G. Analysis and construction of internet based instruction focusing on the use of interactive media in grades 1-12. Prereq: jr st & admis to School of Educ, or grad st

551 Teaching of Language Arts. 1-4 cr. U/G. Survey of curriculum, methods and materials in skills and expressive areas of language, linking theory with practical instructional strategies in both preschool and elementary settings. Prereq: jr st & admis to School of Educ; or grad st

560 Improving Mathematics Teaching and Learning: (Subtitled). 1-3 cr. U/G. Focuses on instructional and curricular issues in mathematics. Specific topics and any additional prereqs will be announced in the Timetable each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: jr st; teaching experience

561 (effective 01/24/2005) Issues in Elementary and Middle School Mathematics. 3 cr. U/G. Introduction to the teaching and learning of mathematics at the elementary and middle school levels. Emphasis on curriculum, instructional strategies, and assessment. Prereq: jr st; admis to School of Educ or cons instr or grad st

561 Issues in Elementary and Middle School Mathematics. 2 cr. U/G. Introduction to the teaching and learning of mathematics at the elementary and middle school levels. Emphasis on curriculum, instructional strategies, and assessment. Prereq: admis to ExcEduc prog or cons instr

562 Secondary School Mathematics Issues for Exceptional Education Teachers. 1 cr. U/G. Issues in secondary mathematics curriculum, instructional strategies, and assessment for teachers of students with special needs. Prereq: jr st; admis to exceduc middle/high cert prog

570 (effective 01/24/2005) Improving Science Teaching and Learning: (Subtitled). 1-3 cr. U/G. Focuses on instructional and curricular issues in science. Specific topics and any additional prereqs will be announced in the Timetable each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: jr st; teaching experience

570 Improving Science Teaching and Learning: (Subtitled). 1-3 cr. U/G. Focuses on instructional and curricular issues in science. Specific topics and any additional prereqs will be announced in the Timetable each time the course is offered. Students needing Undegraduate Credit register for 570-U. Students needing Graduate credit register for 570-G. Retakeable with change in topic to max of 9 cr. Prereq: jr st; teaching experience

579 Current Topics in Curriculum and Instruction: (Subtitled). 1-3 cr. U/G. The specific topic will be announced in the Timetable each time the course is offered. May be retaken with change in topic to max of 9 cr including cr earned under CurrIns 779. Prereq: jr st, cons instr

585 Best Practices in Early Childhood for Children and Families. 3 cr. U/G. Child care as a family-friendly community including integration of child growth and development principles into all aspects of the program. Audit not AllowedPrereq: jr st; admis to child care director's prog or cons instr

593 Supervision of Student Teaching. 1 cr. U/G. Roles and responsibilities of the supervising teacher in planning, guidance and evaluation of the learning experiences of prospective teachers. Prereq: current teacher certification

600 Schoolhouse Commercialism: Implications for Educational Practice. 3 cr. U/G. Provides students with knowledge of the history and current status of schoolhouse commercialism and the ability to analyze and respond appropriately to commercializing activities. Prereq: jr st or cons instr

602 Early Childhood Education. 1-4 cr. U/G. Basic principles of curriculum planning for young children. Education in nursery schools, day care centers, kindergartens and primary grades. A study of the materials of instruction and techniques of teaching at this level. Prereq: jr st

629 Change and Change Strategies in Education. 1-4 cr. U/G. This course will involve students in an exploration of individual groups and institutions as these elements relate to change processes in education. Models and strategies will be studied and applied to change problems. Prereq: jr st; teaching experience

641 Principles and Methods of Teaching English as a Second Language. 1-4 cr. U/G. Review of English linguistics in teaching English as a foreign language. Introduction and practice with methods of teaching English in secondary and adult education programs. Prereq: jr st

642 Teaching Standard English as an Alternate Dialect in Urban Schools. 1-4 cr. U/G. Offered once per academic year, once every second summer. Linguistic aspects of application of research and scholarship to the problems of teaching standard english in urban schools. Includes recent curricular developments and micro teaching. Prereq: jr st. Available as grad level only

643 Balanced Literacy Instruction in the Elementary School. 1-3 cr. U/G. Study and implementation of assessment and teaching strategies for balanced literacy instruction including phonics. Retakable to max of 6 cr. Not open for cr to students with CurrIns 343(ER) or equiv. Prereq: jr st

644 Enhancing Literacy Learning for Diverse Learners: (Subtitled). 3 cr. U/G. Teaching reading and writing to diverse learners. Jointly offered with & subtitles count as repeat of same title of ExcEduc 644. CurrIns 644 & ExcEduc 644 may be retaken with change of topic to combined 9 cr max. Prereq: currently teaching with at least 2 yrs experience; cons instr

647 Early Reading Empowerment: Part 1. 3 cr. U/G. First semester of a 2 semester practicum designed for practicing teachers; develop expertise in assessing and teaching reading to struggling early literacy learners. Prereq: currently teaching, at least 2 years teaching experience, cons instr

648 Early Reading Empowerment: Part 2. 3 cr. U/G. Second semester of a 2 semester practicum designed for practicing teachers; develop expertise in assessing and teaching reading to struggling early literacy learners. Prereq: CurrIns 647(P), currently teaching, at least 2 years teaching experience, cons instr

649 Children's Literature. 1-4 cr. U/G. To acquaint students with the wide range of good books for children and to provide wide reading experiences in children's literature; evaluation and use of current materials. Prereq: jr st & admis to School of Educ; or grad st

650 Reading Interests of Adolescents. 3 cr. U/G. Recently published literature for adolescents - types, themes, issues related to school programs. Prereq: jr st

651 Books and Pictures for the Young Child. 3 cr. U/G. The course examines the use of picture books with young children to develop verbal fluency/asthetic awareness. Rationale is discussed, specific instructional strategies are suggested, illustration styles are studied. Prereq: jr st

652 Integrating Reading and Writing: Kindergarten through Eighth Grade. 3 cr. U/G. The relationship of writing instruction to reading children's books. Teaching focus on literary elements and base writing problems in literature; conferring and editing. Prereq: jr st; teaching experience or cons instr

653 Children's Literature: The Past Five Years. 3 cr. U/G. Analysis of children's books published in the past five years. Arranged by genres, this course considers issues, trends, evaluative criteria, and classroom uses of books. Prereq: jr st; CurrIns 649 or equiv

654 Speaking and Listening in Whole Language Classrooms. 3 cr. U/G. Theory and techniques of developing oral fluency. Specific forms of communication to be considered: informal sharing (listening and talking), discussion, reporting, choral reading, storytelling, and dramatics. Prereq: jr st or grad st

655 Applied Linguistics for Teachers. 1-4 cr. U/G. Explanation of linguistic principles which can be applied to language-based activities in the classroom and which can be useful in solving language-learning problems. Prereq: jr st

657 Approaches to Teaching Texts in the Secondary Schools. 3 cr. U/G. The pedagogy of literature and other texts and its classroom applications: canonical and diverse literary selections; literary critical theory. Prereq: jr st

658 (352) Teaching of English. 3 cr. U/G. The objectives, materials and techniques of teaching English. Covers language and writing methods. Prereq: jr st, Ed Psy 330(P) or 100(P), CurrIns 657(P); or grad st

664 Dramatizing Literature in Elementary Classrooms. 1-4 cr. U/G. Nature of creativity in children; basic principles of informal playmaking, including movement, mime, characterization, dialogue, and conflict. Using children's ideas to develop literature-based dramatizations. Prereq: jr st

668 Introduction to Instructional Technology. 1-4 cr. U/G. The utilization of instructional technology. Emphasis is placed upon the effective integration and utilization of instructional media as based upon a systems approach to organization. Laboratory exercises included. Prereq: jr st. Not available for grad cr.

669 Production and Utilization of Media. 1-4 cr. U/G. Production techniques and utilization of audio-visual media including audio tapes, transparencies, slides and videotapes. 35mm camera or equiv required. Prereq: jr st; CurrIns 668 or L&I Sci 668. Not available for grad cr.

675 Making Schools Work: Promoting Positive Change in Chronic Problem Behavior. 3 cr. U/G. Methods of applying system theory, cybernetics, and communication theory concepts in classrooms and schools to help solve recurring interpersonal problems and improve educational effectiveness. Prereq: grad st or cons instr

700 Field Work in Schools, Agencies and Institutions. (Subtitled). 2-6 cr. G. Supervised field experience planned in conference with the student's major professor. An evaluation report required. Prereq: grad st & cons instr

701 Curriculum Planning. 3 cr. G. The concept of elementary and secondary curriculum in modern american education. Foundation principles and major objectives. Prereq: grad st

702 Curriculum Problems and Practices in Early Childhood Education. 3 cr. G. Current trends in the education of children in day care centers, nursery schools, kindergartens and primary grades. Opportunities for study of individual problems of teachers at this level. Prereq: grad st

705 Curriculum and Instruction as a Field of Inquiry. 3 cr. G. Overview of content and inquiry in curriculum and instruction. Prereq: grad st

706 Elementary School Curriculum. 3 cr. G. Basic concepts of curriculum; the relation of foundation areas to the problems of curriculum development; modern trends in developing educational programs for children. Prereq: grad st

710 Curriculum for Early Adolescents. 2-3 cr. G. Functions and pruposes of schools for early adolescents; historical developments; types of curricula; instructional methods and techniques; recent developments and trends. Prereq: grad st

712 Secondary School Curriculum. 3 cr. G. Social function of the secondary school; recent developments; historical development of the curriculum; types of curricula, relation of the curriculum and the extra curriculum. Prereq: grad st

714 Analysis of Instruction. 3 cr. G. Study of teaching behaviors and models. Examination of factors involved in deciding how to teach. Opportunity to analyze teaching and clarify personal teaching preferences. Prereq: grad st

715 Guiding Instructional Improvement. 3 cr. G. Methods of applying the knowledge of instruction to solve instructional problems; ways of working with teachers to improve the quality of instructional behavior, styles and strategies. Prereq: grad st; CurrIns 714 or cons dept

716 Urban Education: Teaching. 1-4 cr. G. Teaching in a culturally pluralistic setting. An examination of how the law,

school policy and equity issues affect curriculum and instructional practices. Prereq: grad st

721 Advanced Problems in the Teaching of Social Studies. 3 cr. G. For teachers with experience who wish to improve their understanding and skill; equal emphasis on theory and practice. Prereq: grad st & cons instr

724 Advanced Problems in Science Education. 3 cr. G. Study of current issues and problems related to science instruction and curriculum developments, course planning, analysis of learning in the science classroom, techniques of evaluation, review of research in science education. Prereq: grad st & science teaching experience

729 Qualitative Research and Field Studies in Educational Settings. 3 cr. G. Examination of qualitative techniques as applied to educational research and evaluation in schools, classrooms, and other educational settings. Not open to students who have cr in Ad Ldsp 729 which is identical to CurrIns 729. Prereq: grad st; Ed Psy 528(P) or equiv

730 Mathematics in Elementary Education. 3 cr. G. Current trends in mathematics instruction. Investigation of curricular scope and sequence as it relates to mathematics learning by children. Emphasis on special issues. Prereq: grad st; teaching experience

731 Mathematics in the Secondary School. 3 cr. G. Current treands in curriculum and instruction. Opportunity to work on special problems. Prereq: grad st

734 Advanced Problems in the Teaching of Foreign Languages. 3 cr. G. Close re-examination of instructional practices and the soundness of the underlying principles in a period of transition regarding aims, methods, content and psychological aspects of foreign language learning. The teaching of culture and other timely material in changing curricular expectations. Prereq: grad st & teaching experience

744 Secondary Developmental Reading Practicum. 2-4 cr. G. Analysis of developmental reading methods, assessment devices for secondary students, supervised classroom teaching practicum of secondary students. Prereq: grad st; CurrIns 747 & 545

746 Advanced Reading Education. 3 cr. G. Analysis and evaluation of research on reading processes, including psycholinguistic perspectives. Evaluation of reading models. Application to current approaches to teaching reading emphasized. Prereq: grad st; CurrIns 643(P) or equiv

747 (effective 05/23/2005) Reading Assessment and Instruction with Practicum: K-12 Part I. 3 cr. G. Analysis of the factors contributing to reading difficulty; use of formal and informal assessments with implications for instruction. Includes work with student who have reading difficulties. Prereq: grad st; CurrIns 504, 506, 544, 545 or equiv; or cons instr

747 Diagnosis and Treatment of Reading Disability. 3 cr. G. Analysis of the factors contributing to reading disability; use of formal and informal testing for diagnosis of reading disability and consideration of treatment procedures. Prereq: grad st, CurrIns 643 or equiv

748 (effective 05/23/2005) Reading Assessment and Instruction with Practicum, K-12: Part II. 3 cr. G. Diagnosis, teaching, curriculum planning and materials for disabled readers. Students will work with small groups of elementary age disabled readers in a supervised tutorial situation. Prereq: grad st; CurrIns 747(P)

748 Practicum in Reading Diagnosis and Treatment: Elementary. 3 cr. G. Diagnosis, teaching, curriculum planning and materials for disabled readers. Students will work with small groups of elementary age disabled readers in a supervised tutorial situation. Prereq: grad st; CurrIns 747(P); writ cons instr

751 Language Arts in the Elementary School. 3 cr. G. Survey and critical appraisal of programs, practices and trends, emphasis on oral and written expression including spelling and handwriting; specific study of individual problems. Prereq: grad st

753 Language and Composition in the Secondary School. 3 cr. G. For teachers of secondary school english. Consideration of problems, curricular materials and teaching procedures in the areas of language, grammar and written composition, with emphasis on language history and applications of linguistic knowledge. Prereq: grad st

754 Teaching Literature in the Secondary School. 3 cr. G. Curriculum materials, methods of organization and approaches to the study of secondary school literature, with attention to problems of teaching prose fiction and nonfiction, drama and poetry. Micro teaching used. Prereq: teaching experience & grad st

774 College Teaching. 3 cr. G. Analyzes curricular issues and instructional practices in college and adult programs. Research on youth, college influences and adult change will be reviewed. Prereq: grad st

779 Current Topics in Curriculum and Instruction. (Subtitled). 1-3 cr. G. Specific topic announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr, including grad cr earned under CurrIns 579. Prereq: grad st, cons instr

794 Teaching Gifted Children. 3 cr. G. Characteristics and identification of gifted children. Instructional techniques for dealing with giftedness, survey of current research and on going program development, implementation procedures and the role of the teacher within the framework of the school system. Prereq: grad st

795 Developing Curriculum for Gifted Students. 3 cr. G. Historical development and current trends in providing programs and learning materials for gifted students, K-12. Opportunity to develop specific curricular programs to serve individual needs. Prereq: grad st, CurrIns 794

799 Independent Reading. (Subtitled). 1-3 cr. G. - Prereq: enrollment in master's prog

800 Master's Seminar in Curriculum and Instruction. 3 cr. G. Required for all curriculum and instruction students. Students develop and defend a seminar project. Master's examination is in conjunction with the seminar. Prereq: grad st; 30 grad cr; cons dept; advisor's recom

801 Urban Education: Doctoral Seminar in Curriculum & Instruction. 3 cr. G. Curriculum and instruction goals, programs, and practices in urban schools, as analyzed in varying critical perspectives. Prereq: admis to PhD prog; Educ 701(P)

802 Recent Research in the Field of Early Childhood Education. 3 cr. G. A

study of recent research in the area of early childhood education and in child development at these levels. Practical applications to the programs of day care centers, nursery schools, kindergartens and primary grades will be made. Prereq: grad st

804 Practice in Curriculum Planning. 3 cr. G. Development of curriculum guides and teaching aids. Use of teaching aids in pupil-teacher planning. Organization of curriculum programs on state-wide basis and in local school systems. Prereq: grad st; CurrIns 701; cons dept

805 History Of Curriculum Development. 3 cr. G. A study of the history of curriculum development in american education including major issues, movements and figures. Prereq: grad st; Ed Pol 650; cons dept

813 Instructional Research and Theory. 3 cr. G. Examination of current research and theory concerning teacher behavior and its antecedents and consequences. Implications for teaching teacher training, evaluation of teaching, and classroom research. Prereq: grad st; CurrIns 714 or cons dept

814 Seminar in Instruction. 3 cr. G. Individual instruction problems are examined. Emphasis is placed upon developing and carrying out a research project dealing with instruction. Prereq: grad st; CurrIns 714 or cons dept

816 Curriculum Designs for Urban Schools. 3 cr. G. Examination of the problems of urban schools and the implications of these problems for the design of school curriculum. Prereq: grad st; CurrIns 701 or 716; or cons instr

819 Theory and Design of Curriculum. 3 cr. G. Examination of the essential operations of curriculum from the point of view of common curriculum patterns, development of the theoretical considerations underlying the application of these operations to curriculum planning and development. Prereq: grad st; CurrIns 701(P)

829 Advanced Qualitative Research Techniques for Education Settings. 3 cr. G. Advanced examination of qualitative research techniques in three areas: conceptual design; data collection methods; and data analysis and reporting. Not open to students who have cr in Ad Ldsp 829, which is identical to CurrIns 829. Prereq: Ad Ldsp 729 (CurrIns 729) or cons instr

830 Seminar in Elementary School Mathematics Education. 3 cr. G. Critical issues in arithmetic instruction. Survey of research studies and their implications for instruction. Development and discussion of individual research problems. Prereq: grad st; cons dept

839 Practicum in Writing from Qualitative Research for Educational Settings. 3 cr. G. Practice in writing from qualitative research data and analysis of qualitative text. Not open to students who have cr in Ad Ldsp 839 which is identical to CurrIns 839. Prereq: grad st; Ad Ldsp or CurrIns 729(P) & 829(P)

846 Seminar in Developmental Reading: (Subtitled). 3 cr. G. Topics will vary. In-depth study of implications of trends and research for improving instruction and k-12 curriculum planning. Specific topic and any additional prerequisites will be announced in schedule of classes each time course is offered. May be retaken with change in topic to max of 6 cr. Prereq: grad st; CurrIns 746

849 Guiding and Directing School Reading Program. 3 cr. G. Consideration and development of inservice work as a reading resource teacher guiding staff efforts toward improving the school reading program and preventing reading disability. Prereq: grad st; CurrIns 746; CurrIns 846 or 848

880 Proseminar in Urban Education: Curriculum and Instruction. 2 cr. G. An examination of selected problems and issues in urban education. Prereq: grad st; admis to urban educ doctoral prog

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Master's Research or Thesis. 3-6 cr. G. Research or thesis work for students in the master's program in curriculum and instruction. Prereq: grad st; cons advisor

900 Seminar In Curriculum Construction. 3 cr. G. Opportunity to develop curriculum materials or work on individual problems. Prereq: grad st; cons dept

990 Doctoral Research or Thesis. 1-3 cr. G. - Prereq: admis to doctoral prog

993 Seminar in the Pre-Service and In-Service Education of Teachers. 3 cr. G. For advanced students interested in problems of teacher education. Prereq: grad st; cons dept

999 Independent Reading. 1-3 cr. G. For the benefit of doctoral students unable to secure needed content in regular courses. Prereq: post-masters or doctoral st; cons instr

Physical Education (PHY ED)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

590 Current Topics in Physical Education: (Subtitled). 1-3 cr. U/G. Specific topic announced in Timetable each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: jr st; cons instr for grad cr. Available as grad level only

699 Independent Reading. 1-3 cr. U/G. Designed for individuals and small groups engaged in special study. Meetings and the nature of the study to be arranged with staff member chosen to supervise the study. Prereq: jr st

799 Independent Reading. 1-3 cr. G. Individuals and small groups engage in special study; meetings and nature of study arranged with supervising staff member. Prereq: grad st; cons instr

Cross-listed Courses

The following courses may be used to fill certain curricular requirements of the graduate program in Curriculum and Instruction.

Library and Information Science 801 Issues in Education & Information Technology. 3 cr, G.

ECONOMICS

College of Letters and Science

Degrees Conferred: MA, PhD in Economics
Phone: (414) 229-4811
FAX: (414) 229-3860
E-mail: bahmani@uwm.edu
Web site: www.uwm.edu/Dept/Economics

The Department of Economics offers graduate programs of study designed to prepare students for careers in education and for careers in administrative and research positions in government, industry and labor. The programs are built upon a solid core of training in economic theory and in quantitative analysis, with area concentrations in econometrics, economic growth and development, industrial organization, international economics, labor economics and human resources, mathematical economics, monetary theory and policy, and urban and regional economics.

Graduate Faculty

PROFESSORS

Bahmani-Oskooee, Mohsen, Ph.D., Michigan State University
Heywood, John, Ph.D., University of Michigan
Holahan, William L., Ph.D., Brown University, Chair
Kim, Sunwoong, Ph.D., Massachusetts Institute of Technology
Mamalakis, Markos J., Ph.D., University of California-Berkeley
Meadows, G. Richard, Ph.D., Washington University
Mohtadi, Hamid, Ph.D., University of Michigan
Niho, Yoshio, Ph.D., Brown University
Peoples, James H., Ph.D., University of California-Berkeley
Santiago, Carlos, Ph.D., Cornell University

ASSOCIATE PROFESSORS

Arora, Swarnjit S., Ph.D., State University of New York at Buffalo
Bose, Niloy, Ph.D., Virginia Polytechnic Institute and State University
Chakrabarti, Avik., Ph.D., University of Michigan
Tahmiscioglu, Kamil, Ph.D., University of Southern California

ASSISTANT PROFESSORS

Adams, Scott, Ph.D., Michigan State University
Bender, Keith, Ph.D., Duke University
Drewianka, Scott, Ph.D., University of Chicago
Holman, Jill Ann, Ph.D., University of Colorado
Lei, Vivian, Ph.D., Purdue University
McGinty, Matthew, Ph.D., University of California-Santa Cruz
Murshid, Antu, Ph.D., Rutgers University
Neumann, Rebecca, Ph.D., University of Colorado
Vesely, Filip, Ph.D., Purdue University

Master of Arts in Economics

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- An undergraduate major in economics and one semester of calculus. Alternatively, adequate preparation at the undergraduate level equivalent to two semesters of coursework in intermediate economic theory, one semester of statistics, and one semester of calculus.
- Submission of scores on the Graduate Record Examination General Test or equivalent quantitative courses is recommended. Test of English as a Foreign Language exam is required for applicants whose native language is not English.
- Two letters of recommendation from persons familiar with applicant's scholastic achievement and potential.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. Deficiencies in economic theory are made up through Economics 301 (Intermediate Price Theory) and 302 (Intermediate Income Theory); in statistics through Economics 210 (Economic Statistics); and in calculus through Math 211.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. In Economics the newly admitted master's student is advised by the Graduate Study advisor.

OPTION A: THESIS OPTION

Credits and Courses
Minimum degree requirement is 24 graduate credits, 6 of which may be taken in Economics 990 (Graduate Thesis), for the completion of an acceptable thesis. The student must select one area of concentration offered by the Department and must take at least two semesters in this concentration in courses numbered 700 or above (except Economics 990, 991 and 999) or take Economics 506 and 606. Every student must also take Economics 513, 701 and 702.

A concentration on Latin America is available. A student with previous interest and commitment in Latin American studies, who is able to demonstrate — through examination — good reading ability and fair conversational ability in Spanish or Portuguese, is permitted to select this concentration under Option A. Requirements for this concentration are Economics 774, 775 and 778 plus 3 credits in Interdisciplinary Seminar on Latin America plus a graduate course in Latin America in some field other than economics.

Thesis
An acceptable thesis must be written on the student's area of concentration.

Comprehensive Examination
The student must pass a final oral examination in defense of the thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

OPTION B: NON-THESIS OPTION

Credits and Courses
Minimum degree requirement is 24 credits of graduate work. The student must select one area of concentration offered by the Department and must take at least two courses in this concentration in courses numbered 700 or above, or take Economics 506 and 606. The student must also select any two courses numbered 700 or above (except Economics 734,990, 991, and 999) in other areas of economics. In addition, the student must take Economics 513, 701 and 702.

Thesis
No formal thesis is required. The student must submit a master's paper instead of a thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Economics

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program. A master's degree is not prerequisite for admission to the PhD program in economics.

- An undergraduate major in economics with a grade point average (both overall and in economics) of 3.0 (4.0 scale) and one semester of calculus or adequate preparation at the undergraduate level equivalent to two semesters of coursework in intermediate economic theory, one semester of statistics, and one semester of calculus.
- An applicant having a master's degree in economics or graduate coursework in economic theory must have a graduate grade point average of at least 3.33 (4.0 scale).
- Submission of scores on the Graduate Record Examination General Test and Subject Test or equivalent quantitative courses is recommended. Test of English as a Foreign Language exam is required for applicants whose native language is not English.
- Two letters of recommendation from persons familiar with applicant's scholastic achievement and potential.

Reapplication
A student who is in the master's program must formally reapply for admission to Graduate School before continuing toward the PhD. To receive doctoral student status, a student must complete the master's degree or obtain a waiver of this requirement from the admissions committee, the graduate study advisor, and the Department Chair. The waiver must be obtained before the student completes 27 credits in the MA program.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. In Economics, the newly admitted PhD student is advised by the Graduate Study advisor.

Course of Study
Minimum degree requirement is 54 credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. Of the total credits required, a minimum of 42 must be taken in the Department: 12 credits in micro and macro economic theory; 12 credits in quantitative theory; and a total of 15 credits in two areas of concentration. An additional 9 to 12 credits may be chosen either in a minor field outside the Department or in electives either in or outside the Department, as detailed below. The student must also fulfill the research skill requirement below.

Minor field or electives: This requirement may be satisfied in one of two ways:

1. Minor field: 9 to 12 credits in a single department other than Economics; courses planned with a professor in the minor department and the examination, if required, is administered by the minor department.
2. Electives: 9 to 12 credits in courses from any departments, including Economics, but no more than 6 credits in any one department other than Economics; courses are to be planned with the approval of the Graduate Study advisor and no examination is required.

Research skill. Research skill requirements are individually assigned by the graduate study advisor. Research skill requirement is fulfilled through courses in computer science, mathematics, statistics, mathematical economics (700 level or above), or econometrics (700 level or above).

Residence
The student must meet minimum Graduate School residence requirements. The PhD student meets the continuous portion of the residence credit requirement by completing 8 to 12 credits in each of two consecutive semesters, exclusive of summer sessions. Residence credit is not earned at the master's level or prior to award of the master's degree.

Doctoral Preliminary Examination
The student must pass doctoral preliminary examinations for formal admission to candidacy for the degree. The examinations are given in sections covering economic theory and the student's two areas of concentration. Students must take the sections in economic theory first.

Students may attempt any prelim exam twice. Any student failing a prelim exam twice may appeal to the Graduate Faculty for permission to take the exam for a third time if:

1. The student's request is accompanied by letters of support from at least two members of the faculty and where one of the faculty is a member of the prelim committee awarding the failing grade, and
2. The student is still able to satisfy the time limits outlined below. (Note: These conditions must be met before an appeal can be considered by the Graduate Faculty. Satisfaction of these conditions in no way obligates the Graduate Faculty to grant any appeal.)

Students may not take the field exams until they have passed both theory exams. A section is also included covering the minor if there is one; this section is administered by the department concerned.

The schedule specifying the time at which these examinations are taken is as follows:

1. A doctoral student with an MA in Economics from UWM must attempt both theory prelims at the conclusion of 2 semesters or 12 credits (whichever happens last) and must pass both theory prelims prior to the start of the 5th semester or at the conclusion of 24 credits (whichever happens last).

2. A doctoral student with an MA in Economics from another institution must attempt both theory prelims at the conclusion of 3 semesters or 24 credits (whichever happens last) and must pass both theory prelims prior to the beginning of the 6th semester or at the conclusion of 36 credits (whichever happens last).

3. A doctoral student without an MA in Economics must attempt both theory prelims at the conclusion of 5 semesters or 36 credits (whichever happens last) and must pass both exams prior to the beginning of the 8th semester or at the conclusion of 48 credits (whichever happens last).

Dissertation
The candidate must write a dissertation which demonstrates ability to formulate a research topic and pursue independent and original investigation.

Dissertation Defense
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Graduate Student and Faculty Handbook.

Courses

Economics (ECON)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

310 Research Methods for Economics. 3 cr. U/G. Statistical research methods, especially cross-section and time-series regression, applied to evaluation of empirical literature and a directed research project. Not open for cr to students who have cr in Econ 513(531). Prereq: jr st; Econ 210(P) or cons instr

403 Business Cycles. 3 cr. U/G. Explanation of fluctuations in economic activity; their origin and amplification; the forecasting of fluctuations; fiscal and monetary stabilization policies. Prereq: jr st; Econ 210(P) & 302(P)

405 Breakthroughs and Debates in Economic Thought. 3 cr. U/G. Evolution of economic ideas and contributions from such thinkers as Smith, Ricardo, Marx, Marshall, Keynes, Veblen, etc. Prereq: jr st; Econ 301(P) & 302(P)

411 Economic Forecasting Methods. 3 cr. U/G. Economic time series, analysis, forecasts. Trends, seasonality, cycles, smoothing procedures. Simulation models; sample survey methods. Extensive applications using macro and financial data. Forecasting software use. Prereq: jr st; Econ 210(P)

413 (431) Statistics for Economists. 3 cr. U/G. Elements of probability; joint marginal and conditional distributions; measures of central tendency and dispersion, calculus of expectations; central limit theorem. Estimation and testing of economic relations. Prereq: jr st; Econ 210(P)

415 Economics of Employment Relations. 3 cr. U/G. Theoretical, applied, and policy analysis of wage setting, compensation systems, unemployment, local and national labor markets, international trade effects, discrimination, education, and unions. Prereq: jr st; Econ 103(P)

422 Regional Economics. 3 cr. U/G. The growth and decline of economic regions, the location of decisions of firms, infrastructure issues, intergovernmental relations and influences on regional economic performance. Prereq: jr st; Econ 301(P)

426 (360) Government Tax and Expenditure Policy. 3 cr. U/G. Government expenditures, sources of revenue, distribution of government financial burdens, budgets, deficits, power to tax, and provision of public goods. Prereq: jr st; Econ 104(P) & 301(P)

432 (452) Industrial Organization. 3 cr. U/G. Economic analysis of asymmetric information, barriers to competitive entry, licensing, pricing practices/transactions costs; application to markets for insurance, computers, health care, used cars, food. Prereq: jr st; Econ 301(P)

437 (410) Public Utilities and Transportation Economics. 3 cr. U/G. Performance and regulation of public utilities (electricity, gas, cable television, internet) and transportation facilities (interstate highways, passenger and freight service by air and rail). Prereq: jr st; Econ 301(P)

447 (451) Labor Economics. 3 cr. U/G. The economics of unions, minimum wage, poverty and welfare programs; influence of international trade on domestic labor markets. Study of labor supply and labor demand. Prereq: jr st; Econ 301(P)

448 (478) Economics of Human Resources. 3 cr. U/G. The economics of education, training, discrimination, and workplace incentives. Study of hiring, promotion, and job search. Prereq: jr st; Econ 103(P) or cons instr

454 (464) International Trade. 3 cr. U/G. Why countries trade; who wins, who loses; facts about world trade; political economy of trade. Balance of payments, Asian crisis, European Union, American wage dispersion. Satisfies L&S International req. Prereq: jr st; Econ 301(P)

455 International Finance. 3 cr. U/G. International monetary system; spot and foreign exchange markets; balance of payments; international adjustment mechanisms; international finance policy; history and institution. Satisfies L&S International req. Prereq: jr st; Econ 302(P)

458 Selected Topics in Economics: (Subtitled). 3 cr. U/G. Variable content course designed to focus on special topics not normally discussed in detail in other existing courses. Retakable w/chg in topic. Prereq: jr st & cons instr

506 Mathematical Economics I. 3 cr. U/G. Mathematical techniques used in economic analysis, including calculus and matrix algebra. Applications include optimizing behavior of firms and consumers. Prereq: jr st; Econ 301(P); Math 211(P)

513 (531) Econometrics. 3 cr. U/G. Multiple regression, generalized least squares, specification analysis, multicollinearity, multiple equations including simultaneous equations. Prereq: jr st; Econ 413(431)(P)

529 (509) Applied Microeconomics in the Public Sector. 3 cr. U/G. Economic applications to public sector decision-making; analysis of problems, e.g. public services, pricing, efficiency of intergovernmental grants, whether to invest in large-scale public projects. Prereq: jr st; Econ 301(P)

606 Mathematical Economics II. 3 cr. U/G. Difference and differential equations applied to economic variables such as human capital, consumption, learning, energy use, and pollution. Essential preparation for graduate work. Prereq: jr st; Econ 506(P)

701 Economic Theory: Microeconomics. 3 cr. G. Conventional theory of the behavior of firms, consumers, and markets; partial and general equilibria. Prereq: grad st; Econ 301(P). Econ 506(R)

702 Economic Theory: Macroeconomics. 3 cr. G. Aggregative economic analysis, problems of aggregation and significant aggregates; national income, flow-of-funds, and input-output. Prereq: grad st; Econ 302(P). Econ 506(R)

705 History of Economic Thought. 3 cr. G. Review of major developments in economic thought and analysis that have contributed to modern economics in its major forms, schools, and applications. Prereq: grad st; Econ 405(P)

706 Mathematical Economics. 3 cr. G. Mathematical analysis of modern economic problems; dynamic input-output system, stability analysis, general equilibrium analysis, optimizing theory including linear and non-linear programming, activity analysis and turnpike theory, and mathematical growth models. Prereq: grad st; Econ 506(P) & 606(P)

708 Industrial Organization I. 3 cr. G. Exploration of the relationship between industrial structure and market performance. Topics covered include r&d, advertising and government regulations. Prereq: grad st; Econ 301(P), 302(P) & 506(P), or cons instr

709 Industrial Organization II. 3 cr. G. Evaluation of the economic impact of the anti-trust laws. Topics covered include horizontal restraint, vertical restraint, patent, and mergers. Prereq: grad st; Econ 301(P), 302(P), & 431(P)

710 Applied Econometrics. 3 cr. G. Specification, estimation and testing of economic theory. Application of distributed lags, autoregressive models, system of equations, discrete choice models and cointegration principles. Prereq: grad st & Econ 531(P)

712 Urban Economic Theory. 3 cr. G. Trends in u.s. urbanization and suburbanization. Studies of urban household and firm behavior. General equilibrium analytical and simulation models of urban structure. Prereq: grad st; Econ 301(P)

713 Regional Economic Theory. 3 cr. G. Location theory and land-use patterns, regional social accounts and input-output models, shift-share analysis, regional econometric model, and growth policies. Prereq: grad st; Econ 301(P); Econ 431(R)

731 Money, Income, and Prices. 3 cr. G. Analysis of the demand for money by monetary theorists. Integration of theories into general equilibrium macro-models. Prereq: grad st; Econ 302(P). Econ 702(R)

734 (635) Foundation of Econometric Methods. 3 cr. G. Statistical and econometric methods for econometrics research. Asymptotic theory; maximum likelihood, generalized method of moments estimation; classical linear regression model; non-linear and multivariate regression models. Prereq: grad st; Econ 431(P) & 506(P)

735 Econometric Methods I. 3 cr. G. Review of statistical inference, asymptotic distribution theory, multivariate regression model and its extension, and use of prior information; estimation and testing of econometric models. Prereq: grad st; Econ 734(635)(P) or cons instr

747 Public Finance I. 3 cr. G. Topics in efficiency and allocation; theory of public expenditure and taxation, tax incidence analysis, public choice theory, fiscal federalism. Prereq: grad st; Econ 701(C)

748 Public Finance II. 3 cr. G. Topics in redistribution and stabilization: public expenditure analysis, fiscal theory and stabilization policy, distribution of income and wealth, cost benefit analysis. Prereq: grad st; Econ 701(C)

749 Urban Public Finance. 3 cr. G. Analysis of state and local government expenditures and revenues; demand for urban services and costs of supplying them, and methods of financing them. Prereq: grad st; Econ 301(P)

751 Labor Economics I. 3 cr. G. Human capital investments: determinants of earnings (education, experience, incentives, discrimination, unions, compensating differentials); public sector labor markets; issues of retirement and aging. Prereq: grad st; Econ 701(C)

752 Labor Economics II. 3 cr. G. Income distribution and inequality; migration and immigration; fertility, family structure, human capital and labor supply; unemployment and job search; selection bias; specialization and work organization. Prereq: grad st; Econ 701(C)

753 Collective Bargaining. 3 cr. G. Economic and behavioral theories of collective bargaining, bargaining structure, impasses and truces, union effects, management goals, terms of the agreement and national policy. May not be substituted for Econ 751 or 752 in meeting the concentration req of the Econ MA Non-thesis option or in preparing for Ph D prelims. Prereq: grad st; Ind Rel 701(R)

754 Worker Participation. 3 cr. G. Analyzes worker participation programs using history, economic and industrial relations theories, and empirical research and case studies. Jointly offered w/& counts as repeat of Ind Rel 754. Prereq: grad st; Econ 451(P) or cons instr

755 Comparative Labor Markets and Employment Relations. 3 cr. G. Labor market institutions, practices and per-

formance. The U.S. is compared with western europe, japan and elsewhere. May not substitute for Econ 751 or 752. Prereq: grad st; Econ 210(P) & 415(451)(P) or cons instr

774 Economic Development - Theory. 3 cr. G. Theories relating to production, distribution, and capital formation in less-developed nations. Prereq: grad st; Econ 301(P) & 302(P)

775 Economic Development - Policy. 3 cr. G. Planning, case studies, and empirical analysis of less-developed nations. Prereq: grad st; Econ 301(P) & 302(P)

801 (effective 09/06/2005) Advanced Microeconomic Theory I. 3 cr. G. Decision-making under risk and over time, general equilibrium and welfare, market failure, and applications, including demand systems, household production, interpersonal economics, and hedonic pricing. Prereq: grad st; Econ 701(P) & 506(P). Econ 606(R)

801 Economic Theory: Microeconomics. 3 cr. G. Determination of output and prices of products and factors in a competitive system and in certain forms on non-competitive markets. Prereq: grad st; Econ 701(P) & 506(P). Econ 606(R)

802 (effective 09/06/2005) Advanced Macroeconomic Theory I. 3 cr. G. Money, credit, and governmental operations in aggregative analysis; critical study of some aggregative and analytical systems. Prereq: grad st; Econ 702(P)

802 Economic Theory - Macro Economics. 3 cr. G. Money, credit, and governmental operations in aggregative analysis; critical study of some aggregative and analytical systems. Prereq: grad st; Econ 702(P)

803 (effective 09/06/2005) Advanced Microeconomic Theory II. 3 cr. G. Theory of the firm, imperfect competition, game theory, asymmetric information, transaction costs and applications including matching/search, factor markets, contract theory, mechanism design and specialization. Prereq: grad st; Econ 506 (P) & 701(P); Econ 606 (R).

804 (effective 09/06/2005) Advanced Macroeconomic Theory II. 3 cr. G. New growth theories, new Keynesian theories, role of information in macro models, and financial markets and macro economy. Prereq: grad st; Econ 802(P)

806 Mathematical Economics. 3 cr. G. Applications of dynamic optimization technique to modern economic problems; optimal economic growth, optimal pricing, optimal stabilization policies, etc. Prereq: Econ 706(P)

831 Monetary Theory and Policy. 3 cr. G. Study of money, credit, and liquidity as related to income, employment, and prices. Study of goals and effectiveness of monetary and banking policy. Prereq: grad st; Econ 701(P). Econ 702(C) or cons instr

835 Econometric Methods II. 3 cr. G. Identification problem, econometric model building, and simultaneous equation techniques such as two- and three-stage least squares and full- and limited-information maximum likelihood methods. Prereq: grad st; Econ 735(P)

871 The Pure Theory of International Trade. 3 cr. G. Examines for both static and growing economies the impact of trade upon relative prices of goods and factors of production. Prereq: grad st; Econ 701(P)

872 Money in the International Economy. 3 cr. G. Examines the theory and measurement of the balance of payments, appropriate policies for internal and external balance, the problems of making international payments and the issue of exchange rate flexibility. Prereq: Econ 702(P) & 576(P)

888 Candidate for Degree. 1 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

905 Seminar: Banking and Monetary Theory. (Subtitled). 3 cr. G. Consideration of the relationship between monetary policy and short-run fluctuations and long-run economic trends. May be retaken with change in topic to 6 cr max. Prereq: grad st; Econ 831(P) or cons instr

915 Seminar: Econometric Methods. (Subtitled). 3 cr. G. Selected advanced topics in econometric methods and their application to current economic problems. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 835(P)

931 Seminar: Regulated Industries. (Subtitled). 3 cr. G. Research in the field of public utilities and other regulated industries, with emphasis on changing the emerging transportation problems. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 701(P)

939 Seminar: Urban and Regional Economics. (Subtitled). 3 cr. G. Analysis of advanced topics in urban economics. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 712(P) & 713(P)

947 Seminar: Public Finance. (Subtitled). 3 cr. G. Advanced study of public finance problems and literature. Research. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 701(P) & 702(P)

955 Seminar: Labor Economics. (Subtitled). 3 cr. G. Analysis of recent research in labor economics, with emphasis on student preparation of a research paper in this area. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 855(P)

974 Seminar: Economic Development and Growth. 3 cr. G. Analysis of advanced topics relating to the process of economic development and theory of growth. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 774(P) & 775(P)

977 Seminar: International Economics. (Subtitled). 3 cr. G. Independent study in international trade and international finance. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Econ 871(P) or cons instr

990 Graduate Thesis. 1-3 cr. G. Reserved for research in connection with doctoral thesis. Retakable as necessary to fulfill thesis requirements. Prereq: grad st; cons major prof

991 Workshop in Economic Research. (Subtitled). 2-3 cr. G. Individual research and group discussion of selected problems in economic theory and its applications. Retakable with change in topic to 9 cr max. Prereq: grad st & cons instr

999 Independent Work. 1-3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

EDUCATIONAL PSYCHOLOGY

School of Education

Degrees Conferred: MS in Educational Psychology
Phone: (414) 229-4767
FAX: (414) 229-4939
E-mail: edpsych@soe.uwm.edu
Web site: www.uwm.edu/Dept/EdPsych

The Educational Psychology program is designed to serve those who want to increase their understanding of human behavior from conception through adulthood, research and evaluation of learning, and teaching in informal and formal educational settings. The program permits concentrations in School Counseling, Community Counseling, Rehabilitation Counseling, School Psychology, Human Development and Learning, and Research and Evaluation. The Department also offers certification sequences to qualify students as school psychologists and school counselors.

Under the auspices of the PhD program in Urban Education, the Department offers doctoral level training with designated specializations in Educational Psychology, Counseling Psychology, and School Psychology. The Ph.D. specializations in Counseling Psychology and School Psychology are accredited by the American Psychological Association (APA).

Graduate Faculty

PROFESSORS

Corrigan, Roberta, Ph.D., University of Denver
Ellison, Anne Teeter, Ed.D., Northern Arizona University
Fouad, Nadya, Ph.D., University of Minnesota
Sapp, Marty, Ed.D., University of Cincinnati
Smith, Philip, Ph.D., University of Illinois,Chair
Stoiber, Karen, Ph.D., University of Wisconsin-Milwaukee

ASSOCIATE PROFESSORS

Hains, Anthony, Ph.D., University of Notre Dame
Lamborn, Susie, Ph.D., University of Denver
Santiago - Rivera, Azava, Ph.D., Wayne State University
Solberg. V. Scott, Ph.D., University of California, Santa Barbara
Surber, John, Ph.D., University of Illinois
Walker, Cindy, Ph.D., University of Illinois, Urbana - Champaign

ASSISTANT PROFESSORS

Azen, Razia, Ph.D., University of Illinois, Urbana-Champaign
Baskin, Thomas, Ph.D., University of Wisconsin - Madison
Cleary, Timothy, Ph.D., City University of New York
Jang, Hyungshim, Ph.D., University of Iowa
Pichette, Eugene, Ph.D., University of Wisconsin - Madison
Priester, Paul, Ph.D., Loyola University
Reinemann, Dawn, Ph.D., University of Texas at Austin
Renard, Deborah E., Ph.D., Western Michigan University
Wester, Stephen, Ph.D., University of Florida
Zhang, Bo, Ph.D., University of Pittsburgh

Master of Science in Educational Psychology

Application
Applicants should indicate the concentration for which they wish to be considered on their application:

- Community Counseling
- Learning & Development
- Rehabilitation Counseling
- Research & Evaluation
- School Counseling
- School Psychology

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- An undergraduate GPA of 3.00.
- At least 18 undergraduate credits in education or related social sciences. Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses. The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.
- Applicants who have a GPA lower than 3.00 but above 2.5 may be recommended for probationary admission with appropriate supporting documentation.
- Personal interviews may be required prior to admission.
- Applicants for programs in counseling and school psychology are required to submit three letters of recommendation.
- Initial advisor assignment will be made by the area chair of the concentration to which the applicant has applied.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Credits and Courses
Each concentration has unique requirements; the student should consult the descriptions of each concentration to determine specific requirements. Descriptions are available from the Department.

Students seeking an emphasis in counseling are required to complete 48 credits.

Thesis
Optional. Up to 6 degree credits may be awarded for thesis research.

Comprehensive Examination
The student who writes a thesis must

pass a final oral examination in defense of that thesis. The student who does not write a thesis must pass a final oral or written comprehensive examination.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Counseling Concentrations: Community, Rehabilitation, and School Counseling and School Counseling Certification

Application Process:

Admission to the master's concentrations in counseling takes place once a year. Deadline date for department receipt of **completed** applications is **March 1 for Fall admission.**

If you are interested in applying to one of the master's concentrations in counseling, please contact the Department of Educational Psychology and request a complete counseling information packet. This packet contains a student handbook that describes the program in detail and a description of application and admission procedures.
Contact Information:
Department of Educational Psychology
University of Wisconsin-Milwaukee
P.O. Box 413
Milwaukee, WI 53201
(414) 229-4767
EDPSYDept@uwm.edu

Students who seek admission to the Community, Rehabilitation, or School Counseling concentrations within the counseling area must apply through the Graduate School for admission to the Department of Educational Psychology. Graduate School applications may be obtained from the Graduate School, Mitchell 261, University of Wisconsin-Milwaukee, P.O. Box 340, Milwaukee, WI 53201 (414) 229-4982. ***Please note that Graduate School deadlines are earlier*** because they receive, evaluate, and send completed graduate school applications to the Department.

The Counseling Area enrolls students who desire a Master of Science degree in Educational Psychology with a concentration in Community, Rehabilitation, or School Counseling or students who already have a master's degree and wish to obtain certification as a school counselor. Both types of students have to meet application deadlines and must be admitted to the Graduate School. Upon admission, the student is assigned to a faculty member of the Department of Educational Psychology-Counseling Area who shall serve as the student's advisor.

The Counseling Area follows the admissions requirements of the Graduate School and the Department of Educational Psychology.

Counseling Program Description

The counseling program in the Department of Educational Psychology offers three distinct concentration areas: Community Counseling, Rehabilitation Counseling, and School Counseling. Given UWM's location in the largest urban area in Wisconsin, the counseling faculty is committed to training multiculturally competent community counselors, rehabilitation counselors, and school counselors to serve clients in urban environments. All three concentrations share a core preparation in the areas of counseling and educational psychology. As students make progress in their program of studies, their focus will take on a more specialized training with content specific courses and field placements where they will refine their counseling skills in practical settings.

The **Community Counseling** concentration prepares students for work in a variety of community settings such as mental health clinics, community agencies, counseling centers, colleges and universities, and business and industry. Students arrange their program of studies in consultation with their advisors so that the 48 credits earned toward a master's degree will meet selected state certification requirements.

The **Rehabilitation Counseling** concentration prepares counselors to assume a full range of professional responsibilities in a variety of rehabilitation agencies, organizations, educational settings and business and industry. The training model integrates theoretical applications of the human experience with practitioner skills with the ultimate goal of full inclusion and integration of all individuals with disabilities as equally valued members of society. The program of study includes a focus on the career developmental needs of persons with disabilities as well as full community participation. Equally, the faculty believes in and promotes health, wellness and prevention of disabilities and disease within society through its scholarly pursuits. Students arrange their program of studies in consultation with their advisors so that the 48 credits earned toward a master's degree will meet requirements for certification as a rehabilitation counselor (CRC). The rehabilitation counseling concentration is aligned with the standards of the Council on Rehabilitation Education.

The **School Counseling** concentration prepares students to work as school counselors. The program is approved by the Wisconsin Department of Public Instruction. Effective for students admitted to begin their program on or after ***May 15, 2002***, certification requirements have significantly changed. All students will receive K-12 certification, and an internship or a 2-year teaching experience will no longer be required. Students are trained to apply the principles of learning, human development, counseling, and research and measurement within the schools. Preparation is designed to enable students to deliver school counseling programs and services to schools and the community. Students arrange their program of studies in consultation with their advisors so that the 48 credits earned toward a master's degree also will satisfy Wisconsin State Certification requirements. Certification is available as a K-12 School Counselor and as a Bilingual Counselor.

The **School Counseling Certification** program is for students who already possess a master's degree. Certification students are admitted to the school counseling certification and enroll as non-degree candidates. They need to meet the requirements for school counselor certification, which are generally fewer than the credits required for the M.S. Final selection of courses is determined by consultation with an advisor. Certification is available as a K-12 School Counselor and as a Bilingual Counselor. The requirements for this certification program meet the certification standards of the Wisconsin Department of Public Instruction.

The three concentrations train counselors to work with a diverse group of clients in urban settings. Likewise, students are trained to deliver services as counselors in an ethical manner, as outlined by professional codes of conduct. The components of community, school, and rehabili-

tation concentrations are listed below. All three share in common courses comprising an *Educational Psychology* core of studies, a general *Counseling* core of studies, and a *Concentration* core. The *Educational Psychology* core provides knowledge for understanding research and professional scholarship, techniques of educational and psychological measurement, and typical human growth and development across the life-span. The *Counseling* core courses provide training in basic helping processes and relationships, career development, social and diversity issues in counseling, group work, appraisal of client issues, counseling theory, and the role of family systems. The *Concentration* core provides training in advanced strategies for helping clients change, and opportunities for increasing competency with specific populations through field placement. *Fieldwork in Counseling*, and *Supervised Practicum in Counseling* (for community and school students only), and *Internship in Rehabilitation Counseling* (for rehabilitation students only) all involve the refinement of more advanced and sophisticated counseling skills in placements in actual counseling settings. Students are required to spend 20 hours each week during the semester at their placement site (an exception to this hour requirement is described below for students interested in seeking experience in dual concentrations). ***Each concentration requires 48 credits.***

PROGRAM OF STUDIES
For the Community, Rehabilitation, and School Counseling Concentrations

Educational Psychology Core - 9 cr. Students must take the following three core courses:

315-624 Educational Statistics I
315-640 Human Development: Theory and Research
315-720 Techniques of Educational and Psychological Measurement

Counseling Core - 21 cr. All counseling students must complete the following seven core courses:

265-710 Counseling: Theories and Issues
265-711 Foundations of Career Development
265-714 Essentials of Counseling Practice
265-715 Multicultural Counseling
265-800 Group Counseling Theory
265-820 Counseling Appraisal and Clinical Decision-making
265-904 Family systems: Theory, Research, and Practice

Area of Concentration - (18 cr.) Students have the option of selecting one of three areas of concentration:
1) Community Counseling; 2) Rehabilitation Counseling); or 3) School Counseling.

Community Counseling
265-600 Introduction to Counseling
265-774 Fieldwork in Counseling (Community placement)
265-812 Clinical Studies in Counseling
265-970 Supervised Practicum in Counseling (Community placement)
Electives, 6 cr.

Rehabilitation Counseling
265-601 Introduction to Rehabilitation Counseling
265-701 Psychosocial Aspects of Disability in Rehabilitation
265-702 Medical Aspects of Disability in Rehabilitation Counseling
265-703 Vocational Aspects of Disability in Rehabilitation and Special Education
265-774 Fieldwork in Counseling (Rehabilitation agency placement)
265-974 Internship in Rehabilitation Counseling

School Counseling
265-600 Introduction to Counseling
265-774 Fieldwork in Counseling (School placement)
265-810 Counseling in the Schools
265-816 Counseling Children and Adolescents
265-970 Supervised Practicum in Counseling (School placement)
Elective, 3 cr.

Students must complete a comprehensive examination, a master's paper, or a thesis (no more than three thesis credits to apply towards the degree).

Learning & Development

The Learning and Development concentration provides students with the psychological foundations of education. The program emphasizes the perspective of the learner and concentrates on the following content areas: cognition, development, and social. The program focuses on research skills as they apply to education and training, throughout the life-span, in a broad range of settings.

Requirements
Students are required to complete 30 credits for the master's degree. Students complete 9 credits of core courses, 15 credits of a concentration, and 6 elective credits. Students' programs of studies are developed in consultation with their assigned advisor.

Research and Evaluation

The research and evaluation concentration is designed to provide students with the knowledge necessary to execute research and evaluate and critique existing research. Course work exposes students to the general principles of inferential statistics, research methodology and experimental design, psychometrics, and categorical and qualitative research methods.

Requirements
Students are required to complete 30 credits for the master's degree. Students complete 9 credits of core courses, 15 credits in research and evaluation beyond Introductory Statistics, and 6 elective credits. Students' programs of studies are developed in consultation with their assigned advisor.

School Psychology

The School Psychology concentration incorporates the scientist-practitioner model and provides a concrete link between theory, research, and practice. The program prepares students for employment in school and mental health settings. Students are prepared to provide psychological services to children, adolescents, and families; to conduct research; and to empirically evaluate the efficacy of their psychoeducational interventions and assessment procedures.

The following degree options are available: Master of Science De-

gree in Educational Psychology with a concentration in School Psychology; Education Specialist Degree in School Psychology; and, a Ph.D. in Urban Education: Specialization in School Psychology. The Ph.D. Program is accredited by the American Psychological Association (APA) and the National Association of School Psychologists (NASP).

Master's Degree Requirements (30 credits minimum)
PROGRAM OF STUDIES

School Psychology Core: Professional Practices, Standards, Ethics, and History - 12 credits
Ed Psy 751 Professional and Historic Issues in School Psychology
Ed Psy 752 Pediatric Psychopathology
Ed Psy 755 Assessment and Intervention: School Age
Ed Psy 851 Assessment and Intervention: Personality, Social and Emotional Functioning

Educational Methods and Intervention Strategies - 3 credits
Ed Psy 760 Academic Intervention and Alternative Assessment

Educational Statistics and Measurement - 9 credits
Ed Psy 624 Educational Statistical Methods I **OR**
Ed Psy 724 Educational Statistical Methods II
Ed Psy 720 Techniques of Educational & Psychological Measurement
Ed Psy 728 Techniques of Educational Research

Human Development - 3 credits
Ed Psy 640 Human Development: Theory and Research (or other course chosen in consultation with advisor)

Research - 3 credits
Ed Psy 790 Research or Thesis

Master's Examination, or Thesis/Paper
Upon successful completion of 30 graduate credits, the student is eligible to become a candidate for the Master of Science in Educational Psychology. The master's degree is awarded pending successful completion of a master's thesis, paper, or comprehensive examination.

Education Specialist Degree Requirements (Ed. S.)
Upon completion of the master's degree in Educational Psychology (i.e., 30 graduate credits and successful completion of the master's exam, paper or thesis), the student will be considered for the Education Specialist Degree program in School Psychology. The student must file an application for the Ed. S. with the Graduate School. Admission to the Ed. S. program is dependent upon recommendation of the student's advisor and final approval of the school psychology faculty. Decisions will be made on the basis of successful completion of master's degree requirements, a minimum of at least one "satisfactory" annual review, and adequate demonstration of knowledge through review of the student's progressive portfolio (see the School Psychology Student Handbook for these evaluations).

Students who are not recommended for admission into the Education Specialist Degree program are not eligible for school psychology certification through UWM.

Education Specialist Degree (Ed. S.) (39 credits minimum)
PROGRAM OF STUDIES

Advanced Professional and Clinical Practice - 24 credits
Ed Psy 732 Cognitive Behavioral Intervention Strategies in Education
Ed Psy 952 Pediatric Psychology in an Urban Setting
Ed Psy 955 Advanced Therapeutic Interventions
Ed Psy 974 Beg. Practicum in School Psychology (3 credits)
Ed Psy 975 Adv. Practicum in School Psychology (6 credits)
Ed Psy 976 MS Internship in School Psychology (6 credits)

School Psychology Electives - 6 credits
Ed Psy 579 Current Topics in Educational Psychology (with appropriate topic)
Ed Psy 589 Workshop in Educational Psychology
Ed Psy 779 Current Topics in Educational Psychology (with appropriate topic)

Learning - 3 credits
Ed Psy 631 Cognition: Learning, Problem Solving and Thinking (or other course chosen in consultation with advisor)

Educational Methods & Intervention Strategies - 6 credits
Ed Psy 852 Social, Psychological, Biological Basis of Learning Disorders
Couns 805 Consultation Strtegies for Counselors and School Psychologists
CurrIns 747 Diagnosis and Treatment of Reading Disability
ExcEduc 715 Issues and Trends in Exceptional Education
OR other course chosen in consultation with advisor

Education Specialist Final Project
Upon completion of all course work, including practicum, students will demonstrate their professional knowledge by completing a Education Specialist Final Project. The Final Project will demonstrate the student's knowledge and proficiency in a clinical area such as innovative assessment practices, consultation, psychosocial therapy, or behavioral/academic intervention plan-

ning. Students will demonstrate their knowledge and proficiency by successfully completing one of the following projects:
(1) Produce a videotape showing a consultation session with a consultee
(2) Produce a videotape of a therapy session with a child or adolescent
(3) Develop a treatment manual for reducing psychosocial, behavioral or academic problems in children or adolescents
(4) Develop a parenting program for families with difficult or at-risk children
(5) Develop materials for an in-service program for teachers or parents (i.e., power point presentation, overheads, or manual)
(6) Develop a school-wide prevention program for at-risk students
(7) Develop an innovative assessment program for reducing academic, behavioral and/or psychosocial problems
The Education Specialist Final Projects are due at the end of the internship. Projects will be judged to be acceptable by the school psychology faculty in charge of the internship and the student's advisor. Recommendations for satisfactory completion of all of the Education Specialist degree requirements will be made by the student's advisor, and will be forwarded to the department chair.

Certification as a School Psychologist
Students completing the M.S. concentration and the Ed.S. in School Psychology are eligible for certification as a School Psychologist in the State of Wisconsin. School Psychologists are eligible and encouraged to obtain National Certification as a School Psychologist (NCSP) by taking the national certification examination.

Doctor of Philosophy in Urban Education

Specializations in the Department of Educational Psychology

Under the auspices of the Urban Education Ph.D. program, the Department of Educational Psychology provides three doctoral specializations. The Counseling Psychology and School Psychology specializations are accredited by the American Psychological Association (APA).

- Counseling Psychology
- Educational Psychology (includes Learning and Development and Research Methodology)
- School Psychology

Prospective doctoral students wishing to specialize in Educational Psychology must first be admitted to the Urban Education Doctoral Program. The program is described in detail in the Urban Education section of this Bulletin.

PhD/APA Accredited Specialization in Counseling Psychology

Model
The APA-accredited Ph.D. specialization in Counseling Psychology at the University of Wisconsin-Milwaukee is offered through the Department of Educational Psychology, under the umbrella of the Urban Education Ph.D. Program in the School of Education. Following the established scientist-practitioner model, the doctoral program integrates theory, practice, and research to train counseling psychologists who possess the scientific knowledge and skills necessary to work with diverse urban populations and in diverse settings. The program prepares students for employment in applied and academic settings, particularly within urban areas. Doctoral students are expected to conduct research and to advance the science of counseling psychology through scholarly inquiry.

Goals
The program has three major goals:

1. To train Psychologists who specialize as counseling psychologists.
2. To train counseling psychologists who are multiculturally competent, and are prepared to work as psychologists within an urban context.
3. To train psychological scientists who will contribute to and/or apply their scientific knowledge base using qualitative and/or quantitative methodologies.

Admission Requirements
The prospective student must initiate an application to the Graduate School. The applicant should indicate an interest in pursuing the doctoral program in the School of Education under the title Urban Education, with a specialization in Counseling Psychology. Two official copies of all undergraduate and graduate transcripts must be forwarded to the Graduate School.

Applicants should contact the Director, Urban Education Doctoral Program, School of Education, P.O. Box 413, University of Wisconsin-Milwaukee, 53201 for application materials. General admissions requirements include:

Graduate Record Examination - Scores should be forwarded to the Urban Education Doctoral Program. Scores more than 5 years old will not be considered valid.

Grade Point Average - Undergraduate GPA of 2.85; graduate GPA of 3.5; and, a combined (Undergraduate and Graduate) GPA of 6.5.

Letters of Recommendation - Applicants must have a minimum of three appropriate persons write letters of recommendation.

Writing Test - Applicants must submit a writing sample completed within the last 5 years. The writing sample must be single authored, at least 1500 words, and must be selected from one of the following options: master's thesis, undergraduate senior thesis, technical report, term paper, publication, written description of a project, or action research project.

Application and Admission Procedures
The application deadline is **January 1** for **Fall** admission. Incomplete applications will not be considered.

1. Students seeking admission to the doctoral program must indicate their intended area of specialization (Counseling Psychology). The application will be reviewed by the graduate faculty of the Counseling Psychology Area in the Department of Educational Psychology as well as the Admissions Committee of the Urban Education Doctoral Program.

   The Counseling Psychology faculty in the Department of Educational Psychology has ultimate admissions authority into the specialization. Stu-

dents may undergo a personal interview and are reviewed on the basis of letters of recommendations, academic credentials, GRE scores, and intended professional goals. Admissions decisions are also influenced by space limitations, students' evidence of commitment to and interest in urban issues, and a match between student interests and faculty expertise. Approximately 6-8 Counseling Psychology doctoral students are admitted each year.

2. Subsequent to admission a student must submit a program of concentration in Counseling Psychology developed in conjunction with the student's advisor.

3. When the student's course of studies in Counseling Psychology is approved by the Counseling Psychology Area, the student must submit his or her program of study to the Office of Doctoral Studies for review and approval by the Director.

4. Prior to admittance, or within the first 30 graduate credits after admittance to the Counseling Psychology Ph.D. Specialization, students must complete a research project, i.e., master's thesis or publishable paper.

Research Assistantships
Doctoral students are eligible to apply for research and project assistantships through the University of Wisconsin-Milwaukee Urban Education Doctoral Program and for fellowships through the Graduate School. The doctoral program provides assistantships to approximately 28 students each year. In addition, faculty seek other funding which provides for additional student support. Students are encouraged to apply for assistantships by contacting the Director of the Urban Education Doctoral Program at the time of application to the program. Various fellowships and awards are offered through the Graduate School for those who have a financial need and for minority students. Students may contact the Graduate School, UWM PO Box 340, Milwaukee, WI 53201, (414) 229-6267 for further information.

Integration of Science and Practice
Research teams. Students participate on research teams or other research projects early in their doctoral program, prior to developing their dissertations. Ph.D. students are strongly encouraged to participate on research teams for a two-year period. These teams are typically comprised of the student, his/her major professor, other Ph.D. students, and may include research faculty and master's students. Students engage in supervised research activities which may include: (1) designing studies; (2) collecting, compiling, and analyzing data; and, (3) writing and disseminating research findings. Students, may, however, choose to develop individualized projects with their advisors, and to work independently on those.

Program of Studies
Doctoral students in the Counseling Psychology specialization are required to take 15 credits in psychological foundations (physiological psychology, social psychology, history and systems, motivation, individual differences, development); 15 credits in core Counseling Psychology Proseminars, (with topics covering theory and intervention in vocational psychology; multicultural counseling; appraisal in counseling psychology and clinical decision-making; objective assessment; ethical, professional, and legal issues; research in counseling psychology; and supervision); 12 credits of practica; 9 credits in Urban Education; and 12 credits in Research and Evaluation. Students must demonstrate an understanding of the broad theories, current and empirical research across these various disciplines. Students must also pass written and oral preliminary examinations that include questions in psychological foundations, Counseling Psychology foundations, urban education issues, and research and statistical methods and procedures.

Listed below are courses recommended to fulfill requirements in each of the target areas. Recommended courses may be substituted with advisor consultation. In some cases, students will want to consult with their advisor to create a concentration in rehabilitation or pediatric counseling (or in a student-designed area), and they may choose courses in the foundational areas that fit that concentration. Courses required for the program are so designated, and may only be substituted with approval of the Training Director.

Goal 1. Training Psychologists who specialize as Counseling Psychologists

<u>Psychological Foundations: The breadth of scientific psychology</u>
Three credits are needed in each foundation area [e.g., each course is 3 credits], unless otherwise noted. Specific courses that satisfy each requirement may change upon advisor request. Courses typically are offered at least yearly.

Biological bases of behavior
Psych 756 Psychophysiology (four credits) or equivalent

Cognitive-Affective bases of behavior
(Note: Six credits required)
Learning: Ed Psy 734 Contextual Determinants of Motivation
Development: Ed Psy 844 The Multicultural Family (Prerequisite: Ed Psy 640 Human Development)

Social bases of behavior
Ed Psy 733 Educational Applications of Social Psychology

History and Systems of Psychology
Psych 750 History of Psychology

<u>Counseling Psychology; the scientific, methodological, and theoretical foundations of practice in Counseling Psychology</u>
All courses are 3 credits; all are required.

Couns 830 Proseminar 1: Overview and appraisal
Couns 831 Proseminar 2: Cognitive behavioral intervention and vocational psychology
Couns 840 Proseminar 3: Interventions
Couns 841 Proseminar 4: Assessment
Couns 850 Proseminar 5: Supervision

Goal 2. Training in an urban education knowledge base

Educ 701 Urban Educational Issues
Ed Psy 801 Urban Education: Doctoral Seminar in Educational Psychology
Educ 901 Advanced Seminar in Urban Education

Goal 3. Training in research skills

Students are required to take nine credits in research design and methodology, including the following, which are offered once a year:
Ed Psy 724 Educational Statistical Methods II (Prerequisite: Ed Psy 624 Educational Statistical Methods I), concurrent registration with Ed Psy 626 Workshop in the Computerized Analysis of Educational Data
Ed Psy 728 Techniques of Educational Research (or substitute)

Six credits in quantitative or qualitative research tracks are also required, and may be satisfied by two of the following courses:
Ed Psy 824 Educational Statistical Methods III
Ed Psy 821 Psychometric Theory and Practice
Ed Psy 825 Multiple Regression and Multivariate Methods
Ed Psy 826 Analysis of Cross-Classified Categorical Data
Ed Psy 827 Survey Research Methods in Education
Ed Psy 829 Methods of Scale Construction and Multidimensional Scaling
Ed Psy 922 Seminar in Measurement and Evaluation
Ed Psy 929 Seminar in Statistics and Research Design
Ad Ldsp/CurrIns 829 Advanced Qualitative Research Techniques for Educational Settings
Ad Ldsp/CurrIns 839 Practicum in Writing from Qualitative Research for Educational Settings

All are 3 credits, and are offered on a two-year rotational basis. Students interested in pursuing qualitative research designs are also encouraged to take CurrIns729 (Qualitative Research & Field Studies in Educational Settings) and advanced courses in qualitative methodology.

Entering with a Baccalaureate Degree
The sequence of courses noted above is delineated for students entering the program with a master's degree in counseling. Students entering with bachelor's degree must also complete the following courses, or the equivalent:
Couns 710 Counseling Theories and Issues
Couns 711 Foundations in Career Development
Couns 714 Essentials of Counseling Practice
Couns 715 Multicultural Counseling
Couns 800 Group Counseling Theory
Couns 774 Fieldwork and 970 Practicum (1 year)
Ed Psy 624 Educational Statistical Methods I
Ed Psy 640 Human Development
Ed Psy 742 Personality Theories and the Educational Process
Ed Psy 631 Cognition: Learning, Problem Solving, and Thinking

Students entering with a master's degree must also have had these courses, or take them after entering the doctoral program.

Practica
Formal practicum experiences are required of all students, and consist of twelve (12) credits over four consecutive semesters. Students are encouraged to complete 1000 hours of practicum prior to internship. Students entering the program directly from the baccalaureate degree must complete an additional year of practica (6 credits; Couns 774 and 970) prior to entry into the doctoral level practicum (Couns 975). At least one doctoral practicum site must provide students with experience in working with multicultural populations.

Internship
All Ph.D. students in the Counseling Psychology specialization must complete an internship. The internship occurs on a full-time basis over one year or half time for two consecutive years. A minimum of 2000 clock hours is required. Students may not begin their internship until after completion of the doctoral preliminary exams and approval of the dissertation proposal.

Preliminary examinations must be successfully completed prior to application for internship. The student may not apply for internship sites unless the prelims have been completed. Dissertation proposals must be successfully defended prior to the uniform notification day; otherwise, students may be requested to withdraw from the selection pool.

The internship is the last phase of the Ph.D. program in Counseling Psychology. It combines previously developed competencies with new competencies gained under the internship. The internship takes place after course work and practica have been completed. The internship begins when the student has displayed proficiency/competency in a set of content areas previously established by the training program as necessary prerequisites for the internship, such as psychological foundations, knowledge of urban and multicultural competencies and research skills. Chronologically, the internship begins when a mutually agreed upon contract is formulated by the intern, university faculty, and internship supervising psychologists. Please see the Internship Manual for more information. Students are strongly encouraged to seek an internship accredited by the American Psychological Association.

Dissertation
Students are required to complete a dissertation on a topic appropriate for counseling psychologists, and related to urban settings. Students may consult the Urban Education Doctoral Program Handbook for more specific information on UEDP and Graduate School guidelines on dissertations. Following completion of formal coursework, students are required to maintain continuous registration, usually in Couns 990, until the dissertation is completed.

PhD Specialization in Educational Psychology

The doctoral specialization in Educational Psychology requires work in Educational Psychology Foundations and advanced work in either one of two curricular areas: Human Learning and Development or Research Methods. Students contemplating applying to the Educational Psychology specialization should contact the appropriate Area Chair of that curricular area (either Research Methods or Learning and Development) prior to completing their application.

Students who wish to change their area of specialization to Educational Psychology after admission to another specialization must seek an advisor in Learning and Development or Research Methods, and must submit a new program of studies for the newly selected area to the Educational Psychology Specialization Committee for approval. When approved, it must also be submitted to the Office of Doctoral Studies for approval by the Director.

In total, doctoral students specializing in Educational Psychology must earn a minimum of 54 credits beyond the Bachelor.s level, at least 27 of which must be taken in residence. This is a minimum requirement, and many actual programs exceed this minimum. Up to 12 credits earned prior to admission to the Ph.D. program may be counted toward the required credit total. Students entering the Ph.D. program with a Master.s degree may have other courses/requirements waived. However, a minimum of 36 credits (including thesis credits) must be earned following admission to the Ph.D. specialization in Educational Psychology. In addition to course work, the satisfactory completion of preliminary exams and a dissertation are required.

Learning and Development Emphasis
Student pursuing a Ph.D in Urban Education with a specialization in Educational Psychology and concentration in Learning and Development must meet all the requirements of the Ph.D in Urban Education with the Educational Psychology specialization. Students should contact the Learning and Development faculty for a list of courses that are currently available in the area.

Ph.D. Coursework in Learning & Development Emphasis (minimum requirements):

Research Requirement (16 credits):
Ed Psy 626 Workshop in the Computerized Analysis of Educational Data - 1 credit
Ed Psy 724 Educational Statistical Methods II - 3 credits
Ed Psy 728 Techniques of Educational Research - 3 credits
Ad Ldsp/CurrIns 729 Qualitative Research and Field Studies in Educational Settings - 3 credits
Advanced Research Methods - 6 credits

Other Education Courses Required of all Ph.D. Students (9 credits):
Educ 701 Urban Educational Issues - 3 credits
Ed Psy 801 Doctoral Seminar in Educational Psychology - 3 credits
Educ 901 Advanced Seminar in Urban Education - 3 credits

Minor (elective courses, 8-12 credits):
Option A: 8 or more credits in a single department outside of the School of Education.
Option B: 6 or more credits in each of two departments, with at least one department outside the School of Education.

Learning & Development Courses (700 level and above):
12 credits required

Research Methodology Emphasis
Students pursuing a Ph.D. in Urban Education with a specialization in Educational Psychology and concentration in Research Methodology must meet all of the requirements of the Ph.D. in Urban Education with the Educational Psychology Specialization. Typically, these students will accumulate a minimum of 24 credits in Research Methodology courses. In general, the courses taken as part of the Ph.D. research requirement will count toward this minimum total. The table below summarizes the requirements for Research Methodology Students.

Ph.D. Coursework in Research Methodology Emphasis (minimum requirements):

Research & Evaluation (16 credits):
Ed Psy 626 Workshop in the Computerized Analysis of Educational Data -1 credit
Ed Psy 724 Educational Statistical Methods II - 3 credits
Ed Psy 728 Techniques of Educational Research - 3 credits
Ed Psy 821 Psychometric Theory and Practice - 3 credits
Ed Psy 824 Educational Statistical Methods III - 3 credits
Ed Psy 825 Multiple Regression and Multivariate Methods - 3 credits

Other Education Courses Required of all Ph.D. Students (18 credits)
Ad Ldsp/CurrIns 729 Qualitative Research and Field Studies in Educational Settings - 3 credits
Educ 701 Urban Educational Issues - 3 credits
Ed Psy 801 Doctoral Seminar in Educational Psychology - 3 credits
Educ 901 Advanced Seminar in Urban Education - 3 credits
Learning & Development Foundations courses - 6 credits

Minor (elective courses, 8-12 credits)
Option A: 8 or more credits in a single department outside of the School of Education.
Option B: 6 or more credits in each of two departments, with at least one department outside the School of Education.

Research & Evaluation Electives (12 credits required):
Ed Psy 822 Modern Test Theory
Ed Psy 823 Structural Equation Modeling
Ed Psy 826 Analysis of Cross-classified Categorical Data
Ed Psy 827 Survey Research Methods in Education
Ed Psy 829 Methods of Scale Construction and Multidimensional Scaling
Ed Psy 922 Seminar in Research & Statistics
Ed Psy 929 Seminar in Statistics & Research Design

Typical Elective/Minor Courses Outside of Educational Psychology:
Anthro 560 Introduction to Research Methods in Anthropology
Anthro 561 Techniques and Problems in Ethnography
Bus Adm 714 Multivariate Techniques in Management Research
CompSci Xxx Programming courses depending on experience and goals
Econ 310 Research Methods for Economics
Econ 411 Economic Forecasting Methods (time series analysis)
Econ 734 Foundations of Econometric Methods
Econ 735 Econometric Methods I
MthStat 361 Introduction to Mathematical Statistics I
MthStat 362 Introduction to Mathematical Statistics II
MthStat 465 Introduction to Mathematical Statistics for Social Sciences and Education
Pol Sci 392 Survey Research
Pol Sci 702 Advanced Techniques of Political Science Research
Other Courses According to student's interests

PhD/APA Accredited Specialization in School Psychology

Following the established American Psychological Association scientist-practitioner model, the doctoral program prepares school psychologists across a base of theory, practice and research. Professional preparation in school psychology at the UWM provides students with a broad theoretical background, as well as empirically supported clinical skills through didactic, field placement, practica, and internship experiences. The program has a strong urban mission, and is dedicated to increasing knowledge, sensitivity, and awareness of practices best suited for individuals from diverse cultural, ethnic, and economic backgrounds. Principles of biological, psychological, cultural, and sociological sciences are emphasized, in particular applied to urban school, mental health, and educational settings.

Students without a master's degree are accepted at the master's level and fulfill the requirements for a master's degree. These requirements are completion of at least 30 graduate credits and a thesis or publishable paper or an original, independent research project. Upon completion of the master's degree, students advance to the doctoral level. This does not require reapplication. Those who have previously earned a master's degree are admitted at the doctoral level if they have

completed a thesis or publishable paper. Those who have not completed a thesis or publishable paper as part of a master's degree must finish this requirement within the first 30 credits of enrollment in the doctoral program.

Acquisition of research skills is an expectation of all doctoral students reflecting the scholarly nature of a Ph.D. Formal course work serves as the initial vehicle through which students acquire research competencies. Course work covering quantitative and qualitative analysis, measurement, methodology and research design are all required. Ongoing involvement on research teams is expected. Doctoral students must have completed a master's thesis or publishable paper, and subsequently a dissertation that represents an original and independent research effort.

Program of Studies

Research, Statistics & Measurement Requirements (15 credits minimum)

Note: A minimum of 6 credits, not including dissertation credits, must be taken at the 800 level or above. All students must take 315-724 and 315-728.

Statistics (9 credits)

315-724 Educational Statistical Methods II
315-824 Educational Statistical Methods III
315-823 Structural Equation Modeling
315-825 Multivariate Analysis
315-929 Seminar in Statistics & Research Design

Research Theory and Methods/Measurement: (6 credits)

315-728 Techniques of Educational Research
315-720 Techniques of Educational & Psych. Measurement
315-821 Psychometric Theory & Practice
315-922 Seminar in Measurement and Evaluation

Dissertation Credits (6-12 credits)

315-990 Research or Thesis

Educational Psychology Core (12 credits minimum)

(Note: Three credits must be taken in development, and 3 credits must be taken in learning. A minimum of 6 credits must be taken at the 800 level or above.)

Developmental Psychology:

315-640Human Development: Theory and Research
315-741 Cognitive Development
315-799 Social Cognition in Educational Psychology
315-743 Human Development: Study of Infancy and Early Childhood
315-745 Human Development: Study of Middle Childhood
315-746 Human Development: Study of the Adolescent
315-840 Theory and Issues in Human Development
315-844 The Multicultural Family
315-949 Seminar in Human Development

Psychology of Learning:

315-631 Cognition: Learning, Problem Solving & Thinking
315-731 Cognition and the Design of Instruction
315-831 Cognition: Theory and Research
315-734 Contextual Determinants of Motivation
315-834 The Psychology of Achievement Motivation
315-939 Seminar in Human Learning

Urban Education Ph.D. Seminars (minimum 9 credits)

300-701 Urban Education Issues
315-801 Urban Education: Educational Psychology
300-901 Advanced Urban Seminar

Minor in Psychology (minimum 9 credits)

820-712 Introduction to Clinical Psychology
820-714 Conditioning & Learning
820-741 Systems of Psychotherapy
820-742 Empirically Supported Interventions
820-912 Seminar in Psychopathology
820-960 Seminar in Child Psychology
820-961 Seminar in Child-Clinical Psychology

OR other course selected in consultation with advisor

Regular and Special Education Core (minimum 6 credits)

Regular Education Foundation (minimum 3 credits)

272-701 Curriculum Planning
272-746 Advanced Reading Education
272-747 Diagnosis and Treatment of Reading Disability

Special Education Foundation (3 credits)

360-715 Issues and Trends in Exceptional Education

OR other course selected in consultation with advisor

Professional Theories, Research & Clinical Practice (33 credits)

315-751 Professional and Historic Issues in School Psychology
315-752 Pediatric Psychopathology
315-755 Assessment and Intervention: School-Age
315-756 Assessment and Intervention: Early Childhood
315-760 Academic Intervention and Alternative Assessment
315-851 Assessment and Intervention: Personality, Social and Emotional Functioning

Biological Aspects of Behavior

315-853 Biological Basis of Childhood Disorders
315-952 Pediatric Psychology in Urban Settings

Psychological Interventions

315-732 Cognitive Behavioral Intervention Strategies in Education
265-805 Consultation Strategies for Counselors & School Psychologists
315-955 Advanced Therapeutic Interventions

Professional & Clinical Practices: Practicum (9 credits)

315-974 Beg. Practicum in School Psychology (3 credits)
315-975 Adv. Practicum in School Psychology (6 credits)

Advanced Professional Clinical Practices: Internship (12 credits)

315-986 Doctoral Internship in School Psychology

Related Professional Courses (electives)

315-579 or 779 Current Topics in Educational Psychology
(e.g. Assessment & Intervention for ADHD, Interventions for At-Risk Families; Systems Level Interventions for School Psychology)
315-589 Workshop in Educational Psychology

Preliminary Examinations

Upon completion of formal course work, doctoral students complete written comprehensive preliminary examinations. The examination is constructed by the student's doctoral committee and reflects the major study areas of the student, including research and statistics, psychological foundations (the minor area for counseling and school psychology), educational psychology foundations, and specialization foundations (e.g., counseling psychology, educational psychology or school psychology). An urban knowledge base may be incorporated into one or more questions. Students must also prepare an oral defense of the examination.

Dissertation Requirements

Ph.D. candidates are required to write a dissertation in the area of specialization (i.e., Counseling, Educational or School Psychology). The student must demonstrate the ability to formulate a topic and conduct independent research. Students are encouraged to address research issues related to urban schools.

Exit Requirements for the Ph.D. Program
Students are advised to work closely with their Major Advisor to ensure that all program requirements, course work, practica/internship, preliminary examination, and dissertation and oral defense requirement are met in a timely manner.

Certification/Licensure as a Psychologist
Students completing the Ph.D. Specialization in School Psychology are eligible for licensure as a psychologist, and may practice psychology in a medical or mental health facility. Psychologists make application to the State of Wisconsin Licensing Board. Students completing the Ph.D. Specialization in School Psychology are also eligible for certification as a School Psychologist in the State of Wisconsin, through the Department of Public Instruction.

Courses

Counseling (COUNS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

579 Current Topics in Counseling: (Subtitled). 1-3 cr. U/G. Specific topic and prerequisites announced in Timetable each time course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st

589 Workshop in Counseling/Rehabilitation Counseling: (Subtitled). 1-6 cr. U/G. Content to be adopted for students interested in counseling/rehabilitation emphases. Specific topic and any additional prerequisites announced in Timetable each time course is offered. May be retaken with change in topic to max of 6 cr for MS degree. Prereq: jr st; cons instr

600 Introduction to Counseling. 3 cr. U/G. Survey of following areas: history of counseling; systems of counseling; counseling techniques; rehabilitation and vocational counseling; behavior modification and behavioral counseling; group processes in counseling. Prereq: jr st

601 Introduction to Rehabilitation Counseling. 3 cr. U/G. History, philosophy, legislation, organizational structure, legal and ethical aspects, attitudinal and environmental issues as related to vocational and independent living rehabilitation. Prereq: jr st

670 Fieldwork in Rehabilitation Counseling. 3 cr. U/G. Practical experience in agencies which employ rehabilitation counseling personnel; participation required in scheduled seminars on current issues and trends and the utilization of community resources. May be retaken to max of 6 cr. Prereq: jr st; cons instr & agency repres

701 (606) Psychosocial Aspects of Disability in Rehabilitation Counseling. 3 cr. G. Psychological adjustment to disabling conditions by clients and families; case management practices with non-physical disabilities; substance abuse among persons with disabilities. Prereq: grad st; Couns 601(C)

702 (605) Medical Aspects of Disability in Rehabilitation Counseling. 3 cr. G. Medical and case management practices with common physically disabling conditions with emphasis on functional capacities and appropriate intervention resources (e.g., assistive technology). Prereq: grad st; Couns 601(C)

703 (607) Vocational Aspects in Rehabilitation and Exceptional Education. 3 cr. G. Disability and case management practices for severely disabled persons. Emphasis on return to work interventions: vocational evaluation, work adjustment, job placement, accomodation, ergonomics. Jointly offered with & counts as repeat of ExcEduc 703. Prereq: grad st; Couns 601(C) or ExcEduc 679(P)

710 Counseling: Theory and Issues. 3 cr. G. Counseling theories and issues, associated research, and application of theory to counseling practice. Prereq: grad st; course in learning, human development &/or personality theory

711 Foundations in Career Development. 3 cr. G. Educational, psychological, and sociological bases for career development; evolution of career development research; consideration and application of educational-occupational-social information through individual and group counseling approaches. Prereq: grad st

714 Essentials of Counseling Practice. 3 cr. G. Experience and practice in basic counseling skills related to the helping process. Analysis of barriers and hazards in the counseling process. Prereq: grad st

715 Multicultural Counseling. 3 cr. G. Understanding the impact of culture on behavior and how to use that knowledge to increase effectiveness in counseling individuals from other cultures. Prereq: grad st; Couns 714(C)

719 Rehabilitation Research. 3 cr. G. Practice in consuming, evaluating and utilizing research resources; application of research to practice; review of current research issues; final examination is m.s. comprehensive examination. Prereq: 27 grad cr; rehab couns major or cons instr; Ed Psy 624

774 Fieldwork in Counseling. 3-6 cr. G. Practical, intensive and continuous experience in schools, agencies and community settings which utilize counseling personnel. Prereq: grad st; field setting; Couns 710 & 714; cons instr; competency requirement

778 Current Topics in Rehabilitation Counseling: (Subtitled). 1-3 cr. G. Current problems, issues, research, and practices in rehabilitation counseling. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated with change in topic to max of 6 cr for ms degree. Prereq: grad st; cons instr

779 Current Topics in Counseling. (Subtitled). 1-3 cr. G. Specific topic and prerequisites announced in schedule of classes each time course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

790 Research or Thesis. 1-3 cr. G. For graduate students needing to complete master's paper. Prereq: grad st (master's level in Couns/Rehab Couns); cons instr

799 Independent Reading. 1-3 cr. G. For the benefit of graduate students unable to secure needed content in regular courses. Prereq: grad st; cons instr

800 Group Counseling Theory. 3 cr. G. Theories of groups, group counseling strategies, group structure, latent struc-

tural analysis, and educational methodologies. Prereq: grad st; Couns 710 & 714

802 Advanced Group Counseling. 3 cr. G. Familiarization with complex group dynamics and process observational skills. Prereq: grad st; Couns 800

803 Vocational Psychology. 3 cr. G. Vocational theories and research; understanding of individual in relation to world of work; understanding of role of assessment in vocational counseling; multicultural vocational research and counseling. Prereq: grad st; Ed Psy 720; Couns 711 or equiv; Couns 714

805 Consultation Strategies for Counselors and School Psychologists. 3 cr. G. Analysis of consultation models; investigation of intervention strategies; and evaluation of the consultation process. Prereq: 21 grad crs in Ed Psy &/or Couns

807 Advanced Counseling Strategies. (Subtitled). 1-3 cr. G. Variable content lecture-laboratory class. This course provides an in-depth view of counseling strategies based on the precepts of a particular theoretical model. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Prereq: grad st; Couns 714

810 Counseling in the Schools. 3 cr. G. Exploration of counseling functions in schools. The rationale, scope and nature of school counseling. Theories, techniques and principles of counseling process are emphasized. Prereq: grad st; Couns 710 & 714

812 Clinical Studies in Counseling. 3 cr. G. Problem behaviors that clients bring to the counseling situation; stypical behaviors; techniques by which counselors deal with those behaviors. Emphasis on case material. Prereq: grad st; Couns 710 & 714

814 Professional, Ethical and Legal Issues in Counseling Psychology. 3 cr. G. Examination of professional, legal and ethical issues affecting the practice of counseling psychology. Introduction to the scientist-practitioner model and the profession of counseling psychology. Prereq: grad st; 21 crs in Couns or equiv

815 Advanced Multicultural Counseling. 3 cr. G. Multicultural counseling models and related strategies for professionals working in multicultural educational and community settings. Prereq: grad st; Couns 714; Couns 715; Couns 774

816 Counseling Children and Adolescents. 3 cr. G. This course will describe various counseling issues and strategies applicable to working with children and adolescents in both school and community settings. Prereq: grad st

819 Group Assessment for Adults. 3 cr. G. This course is designed to prepare students in adult group assessment. Students will become familiar with instruments used in personality, vocational, and interest assessment. Prereq: grad st; Ed Psy 624; Ed Psy 720

820 Counseling Appraisal and Clinical Decision-Making. 3 cr. G. Course will integrate science of psychology with counseling practice in order to promote development of advanced interviewing skills and intake reporting. Prereq: grad st; Couns 710(P)

830 Proseminar in Counseling Psychology 1: Overview and Appraisal. 3 cr. G. This course will introduce doctoral students to theory, interventions and research in multicultural counseling, group counseling, psychotherapy, and vocational psychology. Prereq: grad st, cons instr

831 Proseminar in Counseling Psychology 2: Cog-Behv Therapies & Voc Psych. 3 cr. G. Introduces doctoral students to theory, interventions and research in cognitive therapy and vocational psychology. Prereq: cons instr

840 Proseminar in Counseling Psychology 3: Interventions. 3 cr. G. Examines psychotherapy research and ethics in counseling psychology. Prereq: cons instr

841 Proseminar in Counseling Psychology 4: Assessment. 3 cr. G. Introduces students to the use of psychological assessment in counseling psychology practice. Prereq: grad st; Ed Psy 720(P); cons instr

850 Proseminar in Counseling Psychology 5: Supervision. 3 cr. G. Provides an introduction to and practice in supervision in counseling psychology. Prereq: grad st; cons instr

873 Fieldwork in Student Personnel Services. 3-6 cr. G. - Prereq: grad st; major in area & cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

904 Family Systems Theory, Research, and Practice. 3 cr. G. Introduction to systems theory, major approaches to family therapy, and the research on family systems concepts, in-session processes, and therapy outcomes. Prereq: grad st; Couns 710(P)

917 Supervision of Counseling. 3 cr. G. An examination of research and strategies for the supervision of counseling; experience in the actual process of supervision. Prereq: grad st; Couns 970

919 Seminar in Counseling: Research. (Subtitled). 3 cr. G. Analysis of research trends; examination of critical issues; reports of student research projects. Prereq: grad st; 21 grad crs toward master's

970 Supervised Practicum in Counseling. 3 cr. G. Practice in cooperating schools, colleges, agencies, and other community settings. Prereq: grad st; Couns 774; cons instr

971 Supervised Practicum in Group Counseling. 3-9 cr. G. Controlled practicum in group counseling with cooperating schools, colleges and agencies. Prereq: master's degree in Ed Psy; acceptance by Couns area; letter of recomm from agency or school

972 Internship in Counseling I. 6 cr. G. Practical experience in a cooperating school involving counseling procedures. Supervised by qualified staff at the employing unit and by counselor education faculty. Seminar participation required. Prereq: master's degree in Ed Psy with specialization in Couns & writ cons instr

973 Internship in Counseling II. 6 cr. G. Practical experience in a cooperating urban school involving counseling procedures. The intern counselor is supervised by qualified staff of the employing unit and by counselor education faculty. Seminar participation required. Prereq: grad st; Couns 972 & writ cons instr

974 Internship in Rehabilitation Counseling. 3-6 cr. G. Supervised experience

in a public or private rehabilitation agency. Stress on case management and counseling procedures with a variety of clients. Prereq: admis to rehab couns concentration; writ cons instr & agency

975 Doctoral Practicum in Counseling 3. 3 cr. G. A supervised counseling experience with emphasis on the process and techniques of assessment, individual, and group counseling. Opportunity for consultation and feedback on counseling issues. Retakable to 9 cr max. Prereq: grad st; admis to PhD prog in Urban Educ, cons instr

976 Doctoral Practicum in Counseling 4. 3 cr. G. A supervised counseling experience with a broad range of clients within a clinical setting. Opportunity for consultation and feedback on counseling issues, and experience at providing supervision of masters' level students. Retakable to 9 cr max. Prereq: Couns 975

977 Advanced Doctoral Practicum in Counseling-5. 3 cr. G. Advanced supervised training in specialized areas of counseling psychology: psychological assessment; individual, family, or group therapy; and consultation in outpatient, inpatient, or community mental health settings. Sat/Unsat grade only. Prereq: doctoral st; Couns 976(P)

990 Research or Thesis. 1-3 cr. G. - Prereq: grad st; cons major professor

999 Independent Reading. 1-3 cr. G. For benefit of doctoral students unable to secure needed content in regular courses. Prereq: doctoral st & cons instr

Educational Psychology (ED PSY)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

525 Measurement and Research Methods for Education Practitioners. 3 cr. U/G. General overview of educational measurement and research methods applied to education contexts. With cons dean, may be used as repeat of Ed Psy 520 or 528. Prereq: jr st; not open for cr or regis by Ed Psy majors

529 Introduction to Program and Curriculum Evaluation. 3 cr. U/G. Examinations of various models and approaches to program and curriculum evaluation. Application of the models to a variety of educational programs will be emphasized. Prereq: jr st

530 Workshop in Computer Instruction in the Schools. 3 cr. U/G. Examination, construction and evaluation of computer extended instruction. Emphasis on participant development of curriculum materials and instructional procedures centered on pupil development. Not open to students who have cr in CurrIns 530, which is identical to Ed Psy 530. Prereq: jr st

550 Social and Affective Issues in Urban Classrooms. 3 cr. U/G. Explore the social/emotional aspects of children's development as related to schooling and present a framework for creating conducive classroom learning environments. Prereq: jr st; admis to School of Educ

551 Social and Affective Issues: Case-Based Problem-Solving. 1 cr. U/G. Students will critique various strategies presented in Ed Psy 550 and engage in a problem-solving process focusing on social/emotional issues and classroom interventions. Prereq: jr st; Ed Psy 550(P)

575 Infant and Early Childhood Assessment. 3 cr. U/G. Theoretical and applied aspects of early childhood assessment. Experience administering specific individual and group (screening) tests. Assessment of language, cognition, motor, adaptive behavior, developmental delay. Prereq: Ed Psy 320 or 321

579 Current Topics in Educational Psychology: (Subtitled). 1-3 cr. U/G. Specific topic and prerequisites announced in Timetable each time course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st

589 Workshop in Educational Psychology: (Subtitled). 1-6 cr. U/G. Educational psychological content adapted for a discreet group of students enrolled in a workshop conducted by the department of educational psychology. Prereq: jr st. Cons dept chair &/or workshop dir

624 Educational Statistical Methods I. 3 cr. U/G. Overview of common statistical techniques used in educational research, including univariate and bivariate descriptive statistics, chi square and linear regression. Prereq: jr st

626 Workshop in the Computerized Analysis of Educational Data. 1 cr. U/G. Workshop in designing, implementing and interpreting the computer analysis of survey, research or test-program type data using a popular comprehensive statistical analysis package. May not be used to satisfy Ed Psy degree requirements. Prereq: jr st & course in applied statistics. Additional work required for grad cr

631 Cognition: Learning, Problem Solving and Thinking. 3 cr. U/G. Overview of historical theories of learning and current theories of cognition. Emphasis on application to instruction, school subjects, workplace training, self-directed learning. Prereq: jr st

633 Applications of Learning Theories to Computer-Based Instruction. 3 cr. U/G. Strategies for applying selected learning theories and research findings to the development of instructional programs for computer applications in educational settings. Prereq: jr st; Ed Psy 330 & programming experience in basic or pascal

640 Human Development: Theory and Research. 3 cr. U/G. Survey of theory and research in human development from conception to death, emphasizing the child and adolescent periods of growth. Prereq: jr st

642 Parenting: Educational and Psychological Influences on Parenthood. 3 cr. U/G. The theoretical and empirical bases of parenthood will be critically examined as they pertain to relevant home and school practices. Prereq: jr st

720 Techniques of Educational and Psychological Measurement. 3 cr. G. Principles of measurement with major emphasis upon standardized instruments for measuring intelligence, achievement, aptitude, attitude, interest and personality. Prereq: Ed Psy 624(P) & grad st

724 Educational Statistical Methods II. 3 cr. G. Univariate analysis of variance, including one-way and n-way designs, repeated measures, and multiple comparisons. Prereq: grad st; Ed Psy 624(P), 626(C)

728 Techniques of Educational Research. 3 cr. G. Study of major design and analysis strategies used in educa-

tional research with emphasis upon the critique of existing studies and the planning of future studies. Prereq: grad st & Ed Psy 624(P)

731 Cognition and the Design of Instruction. 3 cr. G. Review of theories of human learning and cognition; emphasis on research on learning from text and the design of text and learning adjuncts. Prereq: grad st; Ed Psy 631(P) or equiv

732 Cognitive Behavioral Intervention Strategies in Education. 3 cr. G. Theory and application of effective behavioral treatments for children with adjustment problems in school. Emphasis on principles and techniques of cognitive and multimodal behavioral therapy. Prereq: grad st; cons instr

733 Educational Applications of Social Psychology. 3 cr. G. Implications of theory and research in socialization, attitude development and change, group processes, social perception and role behavior for classroom practices and teacher-student interaction. Prereq: grad st

734 Contexual Determinants of Motivation. 3 cr. G. Review of research concerning the effects of teacher expectations, school and classroom climate, and psycho-social variables on student motivation. Focus on problem-solving. Prereq: grad st

735 Social Cognition in Educational Psychology. 3 cr. G. Theory and research on basic cognitive elements and processes used in understanding the self and others with emphasis on applications in educational and counseling settings. Prereq: grad st; Ed Psy 631(P) or 640(P); or cons instr

741 Cognitive Development. 3 cr. G. Examination of theory and research in cognitive development and applications to developmental assessment and instruction. Prereq: grad st; Ed Psy 640(P) or equiv or cons instr

742 Personality Theories and the Educational Process. 3 cr. G. A study of the major theories of personality growth and development. An emphasis upon the application of the theories to the educational process. Prereq: grad st

743 Human Development: Study of Infancy and Early Childhood. 3 cr. G. Study of physical, intellectual, social and emotional development from birth to six years. Prereq: grad st, Ed Psy 640(P) or cons instr

744 Problems in Parenting. 3 cr. G. Examination of problems confronting parents in rearing children, exploration of research and educational practices applicable to their resolution. Prereq: grad st or cons instr. Ed Psy 642

745 Human Development: Study of Middle Childhood. 3 cr. G. Study of the physical, intellectual, social, and emotional development of children from 6-12 years of age. Prereq: grad st & Ed Psy 640(P) or equiv or cons instr

746 Human Development: Study of the Adolescent. 3 cr. G. Study of physical, intellectual, social and emotional development during adolescents. Prereq: grad st; Ed Psy 640(P) or cons instr

747 Human Development: Study of the Adult. 3 cr. G. Physical, social, affective and cognitive development which characterizes the period from young adulthood through aging. Prereq: grad st & Ed Psy 640(P) or equiv or cons instr

751 Professional and Historical Issues in School Psychology. 3 cr. G. Introduction to the practice of psychology in the schools. This course includes the history and systems of psychology, and professional practice issues. Prereq: grad st

752 Pediatric Psychopathology. 3 cr. G. Study of characteristics, definitions, developmental course, correlates, causes, contexts, and outcomes of psychopathology in children and adolescents. Explores interventions within a developmental systems perspective. Prereq: Ed Psy 755 or Couns 710 or equiv

755 Assessment and Intervention: School Age. 3 cr. G. Introduction to school psychology practices in assessment and intervention for school age students. Includes didactic and clinical experiences. Prereq: grad st; Ed Psy 720; cons instr

756 Assessment and Intervention: Early Childhood. 3 cr. G. Introduction to school psychology practices in assessment and intervention for early childhood children and families. Didactic and clinical experiences are included. Prereq: grad st; Ed Psy 755; cons instr

760 Academic Intervention and Alternative Assessment. 3 cr. G. Reviews and critiques major educational reforms in regular and exceptional education. Alternative assessment paradigms, context variables in classrooms, teacher-child interactions, and change strategies are examined. Prereq: grad st

779 Current Topics in Educational Psychology. (Subtitled). 1-3 cr. G. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st

790 Research or Thesis. 1-3 cr. G. Master's level course. Prereq: grad st & cons instr

799 Independent Reading. 1-3 cr. G. For benefit of superior graduate students unable to secure needed content in regular courses. Prereq: grad st; cons instr

801 Urban Education: Doctoral Seminar in Educational Psychology. 3 cr. G. Overview of theory and research in educational psychology with emphasis on problems and issues in urban settings. Prereq: grad st admis to urban educ doctoral prog; Educ 701

821 (effective 01/24/2005) Psychometric Theory and Practice. 3 cr. G. Overview of psychometrics. Presents construction of educational and psychological test from the prespective of classical test theory and generalizability theory, with an introduction to item response theory. Prereq: grad st; Ed Psy 724(P) or equiv; Ed Psy 720(P) or equiv

821 Psychometric Theory and Practice. 3 cr. G. Presents the classical, rasch and irt psychometric models and provides practical experience utilizing them in constructing and analyzing measuring instruments in the behavioral sciences. Prereq: grad st; Ed Psy 724(P) or equiv

822 Modern Test Theory. 3 cr. G. Foundations and practical applications of item response theory (IRT). Prereq: Grad St; Ed Psy 724(P) or cons instr

823 Structural Equation Modeling. 3 cr. G. Study of applied structural equation modeling including path analysis, confirmatory factor analysis and other latent variable models; exposure to computer

programs used for model analysis. Prereq: Ed Psy 825 or equiv; cons instr

824 Advanced Experimental Design and Analysis. 3 cr. G. Advanced topics in the design and statistical analysis of experiments particularly as applied to educational settings. Lec; lab. Prereq: grad st; Ed Psy 724(P) or 626(P) or equiv computer proficiency

825 Multiple Regression and Multivariate Methods. 3 cr. G. The multiple regression model and mutivariate analysis methods such as factor analysis, discriminant analysis, canonical correlation, etc. considered in relation to each other. Prereq: grad st; Ed Psy 724(P) or cons instr

826 Analysis of Cross-Classified Categorical Data. 3 cr. G. Use of methods that include chi-square, log linear, and log multiplicative association models to analyze cross-classified categorical data; with application to the social sciences. Prereq: grad st; Ed Psy 724(P)

827 Survey Research Methods in Education. 3 cr. G. Design and analysis of simple random, stratified, systematic, cluster, two-stage, and multi-stage survey sampling designs; randomized response; control of nonresponse; questionaire design. Prereq: grad st; Ed Psy 724(P)

828 Program Evaluation in Education. 3 cr. G. An examination of the issues related to educational program evaluation; application of statistical and measurement methods to evaluation strategies and designs. Prereq: grad st; Ed Psy 724(P)

829 Methods of Scale Construction and Multidimensional Scaling. 3 cr. G. Introduction to thurstone, likert, and guttman scaling; coomb's unfolding; and methods of nonmetric multidimensional scaling with applications in education and the social sciences. Prereq: grad st; Ed Psy 724(P)

831 Cognition: Theory and Research. 3 cr. G. A detailed look at cognitive theory and research underlying learning and instruction. Aimed at students who expect to use some aspect of cognitive theory in their research. Prereq: grad st; Ed Psy 631(P), 731(P) or course in human verbal learning

833 Psychology of Race and Ethnicity. 3 cr. G. Psychological research and theory concerning race, ethnicity and racial and ethnic relations in american society with applications to a variety of educational situations. Prereq: grad st

834 The Psychology of Achievement Motivation. 3 cr. G. Review of research on personality factors that influence achievement motivation. Designed for those interested in incorporating aspects of motivation theory into their research. Prereq: grad st; Ed Psy 734(P) or cons instr

840 Theory and Issues in Human Development. 3 cr. G. Study of theory, experimental design, and research in human development. Prereq: grad st; Ed Psy 640(P)

844 The Multicultural Family. 3 cr. G. Course examines theory and research for studying development in the family context as it applies to ethnic minority groups in the u.s. Prereq: grad st; Ed Psy 640(P)

850 Objective Personality Assessment. 3 cr. G. Objective diagnostic techniques used in the personality assessment of school-age populations. Prereq: grad st, Ed Psy 755 & 756. Course in behavior disorders of children or in abnormal psychology recom

851 Assessment and Interventions: Personality, Social and Emotional Functioning. 3 cr. G. Introduction to school psychology practices of assessment and interventions for psychological, social, and emotional functioning of children and adolescents. Didactic and clinical experiences included. Prereq: Ed Psy 742 & 752; writ cons instr

852 Social, Psychological, and Biological Basis of Learning Disorders. 3 cr. G. Current assessment and intervention in the approaches to learning and emotional difficulties. Includes social, psychological, cultural, educational, and biological factors affecting children and adolescents. Prereq: grad st; Ed Psy 751 or Couns 710 or equiv

853 Biological Basis of Childhood Disorders. 3 cr. G. Current theory, research, and clinical findings in the biological basis of childhood disorders. Neurodevelopmental assessment and implications for intervention with cognitive behavioral, and psychosocial disorders. Prereq: grad st; Ed Psy 755 or cons instr

871 Fieldwork in Child Development. 3-6 cr. G. - Prereq: grad st; major Ed Psy; cons instr

879 Current Topics in Educational Psychology: (Subtitled). 1-3 cr. G. Specific topic announced in schedule of classes each time course is offered; any additional prerequistites are included in announcement. May be repeated with change in topic to max of 9 cr. Prereq: grad st

880 Proseminar in Urban Education: Educational Psychology. 2 cr. G. An examination of selected problems and issues in urban education. Prereq: grad st; admis to urban educ doctoral prog

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

922 Seminar in Measurement and Evaluation. (Subtitled). 3 cr. G. Specific topic and any additional prerequisites are announced in Timetable each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st & cons instr

929 Seminar in Statistics and Research Design. 3 cr. G. Specific topic and any prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

939 Seminar in Human Learning. 3 cr. G. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

949 Seminar in Human Development. (Subtitled). 3 cr. G. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

952 Pediatric Psychology in Urban Settings. 3 cr. G. Theory, research and clinical practice addressing the mental health needs of children in urban settings. Risk and protective factors are explored within a resiliency framework. Prereq: Ed Psy 752(R), Ed Psy 755(R) or cons instr

955 Advanced Therapeutic Interventions. 3 cr. G. Develop theoretical understanding and competencies related to advance-level prevention and intervention work, including group prevention and intervention and family intervention. Prereq: grad st, writ cons instr, Ed Psy 732 or equiv

959 Seminar in School Psychology. (Subtitled). 3 cr. G. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

960 Evidence-Based Practices in School Psychology: Prevention & Intervention. 3 cr. G. Evidence-based practices for school psychologists and other professionals working in school and clinic settings. Prereq: grad st

974 Beginning Practicum in School Psychology. 1-3 cr. G. Supervised practice in schools, clinics or institutions. Practical experience in administration and interpretation of psychological tests, preparation of case reports and staffing of cases under supervision. Prereq: grad st; enrollment in School Psych prog; cons instr

975 Advanced Practicum in School Psychology. 3-9 cr. G. Advanced psycho-diagnostic practice in schools, clinics or institutions under supervision of a psychologist. Prereq: grad st; Ed Psy 974; writ cons instr

976 MS Internship in School Psychology. 1-6 cr. G. Provides opportunity for masters students to acquire advanced clinical skills in consultation, interventions, and psychological assessment. Supervised experiences in schools. Prereq: grad st; completion of all course requirements for School Psychology certification; writ cons instr

977 Advanced Child and Adolescent Therapy Practicum. 3 cr. G. Design, implementation, and evaluation of therapeutic interventions with the goal of improving the adjustment and functioning of youth and their families. Prereq: grad st; Ed Psy 732 or equiv

986 Doctoral Internship in School Psychology. 3-6 cr. G. Provides opportunity for doctoral students to acquire advanced clinical skills in consultation, intervention, and assessment practices. Supervised experiences in school, mental health, and medical setting. Prereq: grad st; writ cons instr; admis to Urban Educ doctoral prog & identification of specific specialization

990 Research or Thesis. 1-3 cr. G. - Prereq: grad st; cons instr

999 Independent Reading. 1-3 cr. G. For doctoral students unable to secure needed content in regular courses. Prereq: grad st; cons instr

Cross-listed Courses

The following course may also be used to fulfill certain curricular requirements of the graduate program in Counseling.

Educational Psychology 732 Cognitive-Behavioral Intervention Strategies in Education. 3 cr, G.

The following course may also be used to fulfill certain curricular requirements of the graduate program in Educational Psychology.

Library and Information Science 801 Issues in Education and Information Technology. 3 cr, G.

ENGINEERING

College of Engineering and Applied Science

Degrees Conferred: MS in Engineering; MS in Computer Science; PhD in Engineering

Engineering
Phone: (414) 229-6169
E-mail: bwarras@uwm.edu
Web site: www.uwm.edu/CEAS

Computer Science
Phone: (414) 229-4677
E-mail: dta@uwm.edu
Web site: www.cs.uwm.edu

Fax: (414) 229-6958

With the exception of the Master of Science in Computer Science, the graduate programs offered by the College of Engineering and Applied Science are college-wide programs, and the responsibility for these programs is vested in the graduate faculty of the College operating via an interdepartmental committee, the Graduate Program Subcommittee (GPSC).

The engineering master's program offered by the College is the Master of Science in Engineering.

The program provides breadth by requiring a program of coursework and depth through participation in research or design synthesis. The research or design synthesis effort is documented in a thesis that is presented and defended by the student at the final degree examination. For those with prior engineering/scientific work experience which includes appropriate report writing, the program offers a non-thesis option which requires additional coursework in lieu of thesis.

Since the program does not require a rigid set of courses, each student, in consultation with faculty, has the flexibility to put together a program of study which is compatible with the student's career objectives. The flexibility of customizing the program of study makes the Master of Science in Engineering Program suitable as a terminal degree as well as a stepping stone for doctoral level study.

The master's program in Engineering currently offers eight areas of concentration:

- Civil Engineering
- Electrical and Computer Engineering
- Engineering Mechanics
- Industrial and Management Engineering
- Manufacturing Engineering
- Materials Engineering
- Mechanical Engineering
- Engineering Management (*Jointly offered with Business Administration. See MS in Management for more information.*)

The Master of Science in Computer Science is a departmental program and is offered by the Department of Electrical Engineering and Computer Science. The program is designed to provide the student with a broad background in important aspects of computer science. Areas of concentration include software engineering, computer systems, computer networks, data security, and artificial intelligence. The student may prepare for a career in the industrial, business, or government communities, or for doctoral studies.

The Doctor of Philosophy, the highest degree offered by the University, is conferred in recognition of marked scholarship in a broad field of knowledge as well as distinguished critical or creative achievement within a special area of the general field (the special area being the subject of the doctoral dissertation). The Doctor of Philosophy program in the College is designed to meet the traditional high standards for such programs.

There are six major areas in the PhD program:

- Civil Engineering
- Computer Science
- Electrical Engineering
- Industrial Engineering
- Materials Engineering
- Mechanical Engineering

In the various programs, there is enough flexibility to allow the student to develop a plan of studies tailored to meet individual needs. Evaluation of the study plan is based on its appropriateness as an engineering or computer science program, the availability within the University of appropriate course offerings, and the availability within the College of a faculty member who is qualified to serve as the student's major professor.

The PhD degree requires a minimum of 66 credits beyond the baccalaureate, including a dissertation. The student must also satisfy a residence requirement.

Students who wish to gain an advanced level professional learning experience with an industrial or government organization may select the internship course (997) subject to approval of the advisor, a participating industrial or government organization and of the GPSC and the CEAS Associate Dean. Internship registration must be for 6 credits and may be used towards fulfilling the residence requirement. Not more than 6 credits of internship registration will be counted toward the degree. Further details are included under the description of the Doctor of Philosophy degree program in this section.

Many of the courses leading towards the various master's degrees and the doctoral degree are offered in the late afternoon or evening; thus students can complete much of their coursework on a part-time basis.

MS/MUP Program

In cooperation with the Department of Urban Planning, the College of Engineering and Applied Science offers a Master of Science in Engineering/Master of Urban Planning program to prepare students for positions in transportation, public works or similar areas. Students in the program will concurrently pursue a Master of Science in Engineering degree and a Master of Urban Planning degree from the School of Architecture and Urban Planning. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree. Candidates seeking admission to the MS/MUP must apply to and be admitted to both programs. The requirements for admission to the Master of Urban Plan-

ning degree program are detailed in the Urban Planning section of the Bulletin.

Students are required to meet the College of Engineering and Applied Science requirements for the Master of Science in Engineering degree as well as the requirements for a Master of Urban Planning degree as set by the Department of Urban Planning. Students in the MS/MUP program are required to take 6 credits in the Department of Urban Planning as well as an additional 24 credits of core courses in the Department of Urban Planning. The total credit requirement for the MS/MUP program is 54 credits. Students in the MS/MUP program must also take and pass a comprehensive exam in Urban Planning.

Cooperating Departments

- Civil Engineering
- Electrical Engineering and Computer Science
- Industrial and Manufacturing Engineering
- Materials
- Mechanical Engineering

Graduate Faculty

Civil Engineering

PROFESSORS

Beimborn, Edward, Ph.D., P.E., Northwestern University
Christensen, Erik, Ph.D., P.E., University of California-Irvine, Chair
Ghorbanpoor, Al, Ph.D. P.E., University of Maryland
Horowitz, Alan J., Ph.D., University of California-Los Angeles
Naik, T. R., Ph.D., P.E., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Bravo, Hector, Ph.D., University of Iowa
Helwany, Sam M.B., Ph.D., University of Colorado-Boulder
Tabatabai, Habibollah, Ph.D., University of Florida

ASSISTANT PROFESSOR

Li, Jin, Ph.D., University of Cincinnati
Papadopoulos, Christopher M, Ph.D. Cornell University
Rahman, Adeeb, Ph.D., University of Wisconsin - Madison
Titi, Hani, Ph.D., Louisiana State University

Electrical Engineering and Computer Science

PROFESSORS

Davida, George I., Ph.D., University of Iowa
Gregory, William, Ph.D., Massachusetts Institute of Technology
Misra, Devendra K., Ph.D., Michigan State University
Reza, Ali M., Ph.D., University of Wyoming, Co-Chair
Suzuki, Ichiro, D.E., Osaka University
Vairavan, K., Ph.D., University of Notre Dame
Yu, David, Ph.D., University of Oklahoma
Zhang, Jun, Ph.D., Rensselaer Polytechnic Institute

ASSOCIATE PROFESSORS

Armstrong, Brian, Ph.D., Stanford University
Hanson, George W., Ph.D., Michigan State University
Hosseini, Seyed, Ph.D., University of Iowa, Co-Chair
Klemer, David P., M.D., Ph.D., University of Michigan - Ann Arbor
Law, Chiu-Tai, Ph.D., Purdue University
McRoy, Susan, Ph.D., University of Toronto
Munson, Ethan, Ph.D., University of California-Berkeley

ASSISTANT PROFESSORS

Boyland, John, Ph.D., University of California- Berkeley
Buechler, Dale, Ph.D., University of Utah
Cheng, Christine, Ph.D., Johns Hopkins University
Goyal, Mukul, Ph.D., Ohio State University
Mali, Amol, Ph.D., Arizonia State University
Wang, Weizong, Ph.D., University of Maryland-College Park
Ying, Lei, Ph.D., University of Illinois-Urbana/Champaing
Zencir, Ertan, Ph.D., Syracuse University
Zhao, Tian, Ph.D., Purdue University

Industrial and Manufacturing Engineering

PROFESSORS

Garg, Arun, Ph.D., University of Michigan, Chair
Lee, Jay, D.Sc., George Washington University
Saxena, Umesh K., Ph.D., P.E., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Jang, Jaejin, Ph.D., Purdue University
Seifoddini, Hamid, Ph.D., Oklahoma State University

ASSISTANT PROFESSOR

Abu-Zahra, Nidal, Ph.D., Cleveland State University

Materials

WISCONSIN DISTINGUISHED PROFESSORS

Aita, Carolyn R., Ph.D., Northwestern University
Rohatgi, Pradeep K., D.Sc., Massachusetts Institute of Technology

PROFESSORS

Lopez, Hugo F., Ph.D., Ohio State University, Chair
Neumann, Joachim P., Ph.D., University of California-Berkeley

ASSOCIATE PROFESSOR

Venugopalan, Devarajan, Ph.D., McMaster University,

Mechanical Engineering

PROFESSORS

Amano, Ryoichi S., Ph.D., University of California-Davis, Chair
Kojasoy, G., Ph.D., Georgia Institute of Technology

ASSOCIATE PROFESSORS

Dhingra, Anoop, Ph.D., Purdue University

Jen, Tien-Chien, Ph.D., University of California-Los Angeles
Perez, Ronald A., Ph.D., Purdue University, Chair
Reisel, John R., Ph.D., Purdue University
Renken, Kevin J., Ph.D., University of Illinois-Chicago

ASSISTANT PROFESSORS

Chen, Junhong, Ph.D., University of Minnesota
He, Xiaoling, Ph.D., Georgia Institute of Technology
Kim, Kyu-Jung, Ph.D., University of Michigan
Li, Yaoyu, Ph.D., Purdue University
Pillai, Krishna, Ph.D., University of Delaware

Master of Science in Engineering

Admission
An applicant must meet Graduate School requirements plus this College requirement to be considered for admission to the program:

> Undergraduate major in engineering, mathematics or a natural science.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The Graduate School requires that the student have a major professor to advise, supervise, and approve the Program of Study before registering for courses. The College will assign the incoming student to a temporary Program Advisor at the time of admission.

Program of Study
During the first semester or immediately after completion of 9 credits, a student in the Master of Science in Engineering program must select a thesis advisor who will be the student's major professor. During the first semester the student, in consultation with the program advisor or major professor, develops a program of studies and submits it to the College Graduate Program Subcommittee. To make subsequent changes, the student must petition the Graduate Program Subcommittee prior to pursuing the proposed changes.

Master's Program Committee
The Program Committee is proposed by the major professor in consultation with the department. The Committee is to include at least two members from the major area and at least one from outside the major area.

Credits and Courses
Minimum degree requirements are 24 credits for the thesis option and 30 credits for the non-thesis option as outlined below. The student, in consultation with the major professor, develops a plan of study consistent with the student's professional interests; this plan has to be approved by the College Graduate Program Subcommittee (GPSC). Of the courses offered in the College only those numbered 400 and above may be taken for graduate credit for this degree. Independent study courses (699 and 999) may be included in the minimum course credit requirements provided GPSC approval has been obtained prior to registration in such courses. Typically no more than three credits of independent study are allowed in the MS Program. Guidelines on acceptable independent study courses are available in the CEAS Graduate Studies Office. A student may not use courses required for a baccalaureate degree for subsequent graduate credit.

Thesis Option. All students are encouraged to undertake the thesis option with the following exception: The Engineering Management area of concentration does not have a thesis option and students enrolled in Engineering Management must meet the criteria for non-thesis option. The degree requires a minimum of 12 credits in an approved technical program of studies, 9 credits of approved electives and 3 credits of thesis. At least 12 credits, not including thesis, must be in courses of 700 level or higher. At least 12 credits, including thesis, must be earned at UWM. The thesis may be written in absentia provided prior permission has been obtained from the major professor and the Associate Dean for Graduate Studies in the College of Engineering and Applied Science.

Non-Thesis Option. Students with prior or concurrent experience appropriate to their intended program may register for a non-thesis option subject to approval by the College Graduate Program Subcommittee. Students must apply for non-thesis option by the end of the second semester in the program. Student eligibility for the non-thesis option is based upon the evaluation of the student's dossier showing prior or concurrent experience carried out in industry; this evaluation is made by the College Graduate Program Subcommittee. Students majoring in the Engineering Management area of concentration must show the eligibility for the non-thesis option at the time of admission to the program. Students majoring in the Electrical and Computer Engineering area of concentration may be accepted in the non-thesis option without the requirement of the prior or concurrent work experience. Students in this option must undertake a minimum of 30 credits of work of which at least 21 must be in an approved technical program of studies and 9 may be approved electives. At least 15 credits must be of 700 level and above. Students majoring in Materials are not eligible for the non-thesis option.

Comprehensive Examination
Students in both the thesis or non-thesis option must pass a final comprehensive examination partially in defense of the thesis and/or relating to the prior experience shown on the dossier. For students in the Engineering Management area of concentration, successful completion of an approved capstone course may be considered as satisfying the requirement of passing a final comprehensive examination.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Certificate In Ergonomics

The Certificate in Ergonomics program is designed to provide a formal program of study for students who wish to pursue careers in ergonomics in industry, government, or academia.

Students wishing to earn the certificate must be enrolled either in a master's or doctoral degree program in any depart-

ment or be admitted as non-degree graduate students (see below) at the University of Wisconsin-Milwaukee and must complete the required 15 credit hours with a GPA of 3.0 or better from the following group of courses:

I&ME 580 Ergonomics of Workplace, 3 cr.
I&ME 780 Advanced Ergonomics - Low Back Pain, 3 cr.
I&ME 783 Advanced Ergonomics - Upper Exremity, 3 cr.
I&ME 786 Issues In Ergonomics: Measurement and Statistics, 1 cr.
I&ME 787 Issues In Ergonomics: Epidemiology, 1 cr.
I&ME 788 Issues In Ergonomics: Legal/Regulatory, 1 cr.
I&ME 790 Design Project, 3 cr.

Those students who wish to earn the certificate in ergonomics and are not enrolled in a degree program at UWM can be admitted as non-degree graduate students in Engineering provided they meet one of the following requirements:

- A bachelor's or higher degree with a GPA of 2.75 or better in engineering, medicine, industrial hygeine, safety, physical therapy, occupational therapy, nursing, educational psychology, human kinetics.
- A bachelor's or higher degree with a GPA of 2.75 or better with evidence of at least one year of experience in ergonomics and/or occupational health and safety related area.

Admission as a non-degree graduate student in Engineering does not constitute admission to a Master's or a Doctoral degree program in Engineering.

Students wishing to obtain the Certificate in Ergonomics must declare their intentions by applying to the Industrial and Manufacturing Engineering Department prior to completion of two of the seven required courses. After completing the program requirements, a Certificate in Ergonomics will be awarded by the Department of Industrial and Manufacturing Engineering within four weeks after completing the requirements.

Master of Science in Computer Science

Admission
An applicant must meet Graduate School requirements and one of the following program requirements to be considered for admission:

- Undergraduate major in Computer Science.
- Satisfactory completion of an introductory programming course (such as Comp Sci 152), 6 credits of coursework in Computer Science and Math 231, 232, 233, and Math or Elec Eng 234 or their equivalent. Under exceptional circumstances the Math prerequisites may be reduced to Math 231 and 232 with the approval of the Chair of the Department of Electrical Engineering and Computer Science.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in the Graduate School regulations. A student is assigned an advisor at the time of admission.

OPTION A: (THESIS OPTION)

Credits and Courses
Minimum degree requirement is 21 credits of coursework and at least 6 credits of thesis (with no more than 4 credits of thesis in one semester). A student must take at least 15 credits of 700 (or higher) level courses. CompSci 704 is a required core course. In addition, the student must have completed the following six courses or their equivalents before the completion of the Master's program: CompSci 215, 217, 458, 535, 536 and 537. (No more than six graduate credits from this list may be applied toward the degree credit requirements).

Thesis
The student must write an acceptable thesis under the supervision of a faculty advisor. A minimum of 6 credits of thesis work, taken over at least 2 semesters, is required. Students who cannot complete their theses within this credit allowance will be required to register for additional thesis work in subsequent semesters until the thesis is completed. Once a student begins a thesis under the supervision of an advisor, the Chair of Computer Science must approve all changes, including a change to a new advisor.

Comprehensive Examination
The student must pass a final comprehensive examination which normally will emphasize the student's thesis work. However, the examination may also cover the student's coursework.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

OPTION B: (NON-THESIS OPTION)

Credits and Courses
Minimum degree requirement is 30 credits with at least 21 credits at the 700 level (or higher). CompSci 704 is a required course. In addition, the student must have completed the following six courses or their equivalents before the completion of the Master's program: CompSci 215, 217, 458, 535, 536 and 537. (No more than six graduate credits from this list may be applied toward the degree credit requirements). As part of the above requirements, the student must complete a capstone project by registering for 3 credits of CompSci 999 under the supervision of a faculty advisor.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Engineering

Admission
An applicant must meet Graduate School requirements plus these College require-

ments to be considered for admission to the program:

- Bachelor's or master's degree in engineering or computer science depending on the program area selected.
- Applicants with BS or MS degrees outside of engineering or computer science may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

  The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. The undergraduate/graduate preparation including mathematics equivalent to ElecEng 234 or Math 234, or the made-up deficiencies must be sufficient to assure the Graduate Program Subcommittee that the applicant is able to proceed with advanced work directed toward the doctoral degree.
- A grade point average of 3.0 on the basis of 4.0 in highest degree granted. An applicant with a master's degree in engineering having a GPA of less than 3.0, but at least equal to 2.75, may be admitted if substantial evidence can be submitted demonstrating that the applicant has the capacity to perform satisfactory doctoral work.
- All applicants are required to submit a brief (1 or 2 page) statement describing their professional goals and at least two letters of reference.

Reapplication
A student who receives a master's degree at UWM must formally apply for admission to the Graduate School as a doctoral student before continuing studies which will be credited toward the Doctor of Philosophy in Engineering.

Credits and Courses
The minimum degree requirement is 66 graduate credits beyond the bachelor's degree. The minimum credit distribution of coursework to be undertaken must be as follows depending on the option selected.

- 21 credits in the major area of concentration
- 9 credits in an approved minor area
- 6 credits in mathematics and/or quantitative methods
- 18 credits of doctoral thesis
- 12 credits of approved electives

The 6-credit requirement in mathematics and/or quantitative methods may be met by satisfactorily completing certain courses specified by the GPSC or by taking the minor in mathematics. When such courses also count for either the major or the minor area, the remaining credits may be taken as approved electives.

The major area of concentration must be in one of the six areas approved for the PhD degree in the College. These areas are: Civil Engineering, Computer Science, Electrical Engineering, Industrial Engineering, Materials, and Mechanical Engineering. The minor is normally in another area offered in the College or in the physical sciences or mathematics or in management sciences. Consideration of any other area as a minor requires the prior approval of the GPSC.

A minimum of 26 credits, excluding thesis and internship, if applicable, must be at the 700 level or higher.

A minimum of 33 credits, including thesis and internship, when applicable, must be completed while enrolled at UWM in the PhD degree program.

A maximum of 33 credits of coursework can be considered for transfer credits for prior graduate work including a master's degree earned at UWM or elsewhere provided the coursework taken falls within the appropriate areas. Students entering the program without a prior applicable master's degree are limited to a total maximum transfer of 9 credits for courses taken elsewhere. Independent study courses (699 and 999) may be included in the minimum course credit requirements provided GPSC approval has been obtained prior to registration in such course. Typically no more than six credits of independent study are allowed in the Ph.D. Program. Guidelines on acceptable independent study courses are available in the CEAS Graduate Studies Office.

The GPSC may require candidates to complete certain courses as part of the requirement for the specific major or to meet the mathematics and/or quantitative methods requirement.

Major Professor as Advisor
The Graduate School requires that the student must have a major professor to advise, supervise, and approve the program of study before registering for courses. The GPSC will assign the incoming student to a temporary Program Advisor at the time of admission. Prior to the completion of 12 credits (9 credits for part-time students), the student must select a major professor who will be the student's thesis advisor. The student in consultation with the major professor develops a proposed program of studies which is submitted to the Graduate Program Subcommittee for approval. For subsequent changes, the student must file a revised program of study for approval.

Internship Elective
Students interested in undertaking an internship may do so by taking not more or less than 6 credits in course 997. Registration for Internship may be used toward meeting the residence requirements. Not more or less than 6 credits of internship will be counted toward the degree. The internship normally involves a cooperative effort with industry or government agencies where the student is involved actively in advanced professional engineering activities.

Registration in the internship course must be subsequent to passing the Qualifying Examination and submission of an internship proposal outlining the scope and objectives of the activity. The internship proposal must be duly approved by the advisor, the organization where the internship is proposed, the GPSC and the CEAS Associate Dean for Graduate Studies. The College does not guarantee that every student interested in an internship will be placed appropriately. In the absence of suitable placements, students should plan to take other courses to fulfill the degree requirements.

Foreign Language
There is no foreign language requirement

for the degree.

Residence
The program residence requirement is satisfied either by completing 8 or more graduate credits in two consecutive semesters, exclusive of summer sessions, or by completing 6 or more graduate credits in each of three consecutive semesters, exclusive of summer sessions.

Qualifying Examination
A qualifying examination must be taken to determine whether the individual is qualified for doctoral-level work. For students entering with a bachelor's degree, this examination, which will be written, may be taken after 18 credits of graduate work have been earned and must be satisfactorily completed before 30 credits of graduate work have been completed. Students admitted after completion of an appropriate master's degree must complete the examination satisfactorily before 12 credits of coursework have been earned at UWM subsequent to admission to the PhD program.

The examination will be for a given area, but will also include material on basic engineering principles. The examination will normally be offered twice a year during the regular academic year. A student may take the examination twice; if a passing grade is not obtained on the second attempt the applicant will not be permitted to proceed toward the Doctor of Philosophy degree.

Doctoral Program Committee
The Program Committee is proposed by the major professor in consultation with the department. The Committee is to include at least five graduate faculty (three from major area, one from minor area, and one from another area). Outside members, particularly for those with internships, are desirable. The majority of the Committee members should be from the student's major field.

Doctoral Preliminary Examination
A student is admitted to candidacy only after successful completion of the doctoral preliminary examination conducted by the Program Committee. This examination, which normally is oral, must be taken before the completion of 48 credits of graduate work toward the Doctor of Philosophy degree in Engineering and should be taken within the first seven years in the program. Prior to the examination the student must present a proposal for a doctoral dissertation project. The examination may cover both graduate course material and items related to the proposed dissertation project.

Dissertation
The student must carry out a creative effort in the major area under the supervision of the major professor and report the results in an acceptable dissertation. Registration for dissertation requires successful completion of the doctoral preliminary (Candidacy) examination and prior approval of the student's advisor, the doctoral committee, and the GPSC of a dissertation proposal which outlines the scope of the project, the method of approach, and the goals to be achieved. Any proposal that may involve a financial commitment by the University also must be approved by the Office of the Dean. Total dissertation project registration is for a minimum of 18 credits and any student registering for thesis must continue to register for 3 credits per semester during the academic year until the dissertation is completed.

Dissertation Defense
The final examination, which is oral, consists of a defense of the thesis project. It can only be taken after all coursework and other requirements have been completed.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Graduate Student and Faculty Handbook.

Courses

Civil Engineering & Mechanics (CIV ENG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

401 Intermediate Strength of Materials. 3 cr. U/G. Area moment, conjugate beam, deflection due to shear, bending of unsymmetrical beams, curved beams, shear flow, shear center, stresses in open sections, theories of failure, plastic stress-strain relations, plastic deformation, limit analysis, energy methods, laboratory investigation. Prereq: jr st, Civ Eng 303(P)

411 Engineering Principles of Water Resources Design. 3 cr. U/G. Principles of hydraulics; steady and non-steady flow in closed conduits and open channels; hydraulic design of structures, surge tanks; hydraulic model studies. Prereq: jr st & admis to an Eng major or grad st; MechEng 320(P)

412 Applied Hydrology. 3 cr. U/G. Applied hydrology with emphasis on analysis of rainfall, runoff and streamflow processes, hydrologic forecasting and simulation, urban hydrology, hydrologic design and modelling. Prereq: jr st; Math 233(P) & MechEng 320(P)

413 Environmental Engineering. 3 cr. U/G. Water pollution and control; hazardous substances and risk assessment; water and wastewater treatment systems; air-pollution and emission control; solid wastes; design of treatment facilities. Prereq: jr st & admis to an Eng major or grad st; MechEng 320(P)

431 (331) Materials of Construction. 3 cr. U/G. Investigation covering engineering properties of metals, timber, concrete, masonry, plain and reinforced plastics, glues; thermal effects. Prereq: jr st; Civ Eng 303(P)

456 Foundation Engineering. 3 cr. U/G. Site investigation; foundation bearing capacity and settlement; design of spread and combined footings; lateral earth pressures; retaining wall design; slope stability analysis; pile foundations. Prereq: jr st; Civ Eng 335(P)

463 Introduction to Finite Elements. 3 cr. U/G. Generation and assembly of finite element matrices in one- and two-dimensional problems. Modeling and practical applications in solid mechanics, heat transfer and fluid flow. Not open to students with cr in MechEng 463, which is identical to Civ Eng 463. Prereq: ElecEng 234(P), Civ Eng 303(P), MechEng 320(C), 311(C) or 321(C)

490 Transportation Engineering. 3 cr. U/G. Technological and common elements of all modes of transportation; their effect on performance, demand, and outputs of a transportation system. Development of new transportation systems.

Prereq: jr st & admis to an Eng major; or grad st

492 Environmental Impact Assessment. 3 cr. U/G. Study and evaluation of the impacts of large scale projects on the quality of the environment with emphasis on the assessment of physical and community impacts. Impact statement preparation. Prereq: sr st

502 Experimental Stress Analysis. 3 cr. U/G. Basic stress strain relations; demonstration of experimental methods of determining stresses and strains; use of mechanical strain, electric strain, and strain gages, optical photoelastic equipment, brittle lacquers, models. Prereq: jr st & Civ Eng 303(P)

511 Water Supply and Sewerage. 3 cr. U/G. Resources of water supply quality and quantity requirements. Principles of hydraulic design of water supply and sewerage systems; pumping stations. Principles of sewage disposal. Problems of management involving hydrological, engineering, institutional, legal and economic aspects. Design project. Prereq: jr st; Civ Eng 411(P)

521 Water Quality Assessment. 3 cr. U/G. Laboratory techniques for detecting and measuring physical, chemical and biological characteristics of water and wastewater. Water quality requirements. Design of sampling programs. Prereq: sr st; Civ Eng 411(P)

560 (460) Structural Analysis. 3 cr. U/G. Topics in traditional analysis methods; indeterminate structures, load & load paths, moment distribution, approximate methods, elementary plate analysis. Prereq: jr st; Civ Eng 360(P), 372(P)

571 Design of Concrete Structures. 3 cr. U/G. Topics in reinforced concrete design; indeterminate reinforced concrete beams and frames; length effect in columns; torsion; two way floor systems; yield line theory. Prereq: jr st; Civ Eng 360(P), 372(P)

572 Design of Steel Structures. 3 cr. U/G. Topics in design of steel structures; tension, compression, and beam members; combined axial and bending; connections; moment resisting frames; serviceability; composite construction, maintenance. Prereq: jr st; Civ Eng 360(P), 372(P)

573 Design of Masonry Structures. 3 cr. U/G. Topics in design of masonry structures; materials, loads, design codes, reinforced & unreinforced axial & flexural members, composite & cavity walls, shear walls, seismic requirements. Prereq: jr st; Civ Eng 360(P), 372(P)

574 Design of Prestressed Concrete Structures. 3 cr. U/G. Design of prestressed concrete structures; methods of prestressing; loss of prestress; design for flexure, shear, torsion; camber and deflections; continuity; connections; fire rating; circular prestressing. Prereq: jr st; Civ Eng 360(P), 372(P)

578 Design of Wood Structures. 3 cr. U/G. Design of timber structures; properties of wood; design for bending, shear, and combined bending and axial load; connections; laminated sections; rigid frames and arches. Prereq: jr st; Civ Eng 360(P)

579 Earthquake Engineering. 3 cr. U/G. Earthquake mechanics and effects, structural dynamics, seismic hazard analysis, design guidelines, design of steel and concrete buildings for earthquake loads. Counts as repeat of Civ Eng 891 w/same subtitle. Prereq: sr st; Civ Eng 571(P) or 572(P); or cons instr; or grad st

580 Engineering Analysis in Applied Mechanics. 3 cr. U/G. Engineering analysis of initial and boundary value problems in applied mechanics. Application of various methods to investigate a variety of engineering situations. Not open to students with cr in MechEng 580, which is identical to Civ Eng 580. Prereq: jr st; ElecEng 234(P)

590 Urban Transportation Planning. 3 cr. U/G. Techniques used to plan urban transportation systems; data collection, trip generation, trip distribution, factors underlying the choice of mode, traffic assignment, modeling and evaluation techniques. Prereq: sr st

592 Traffic Control. 3 cr. U/G. Control of transportation systems with emphasis on traffic engineering principles. Data collection, capacity analysis, traffic improvements, signalization, signs and markings, channelization, intersection, speeds and safety considerations. Prereq: sr st

594 Physical Planning and Municipal Engineering. 3 cr. U/G. Organization and structure of local government, zoning and planning, subdivision layout, street design, transit service, urban drainage, storm and sanitary sewer, water supply and other public works activities. Prereq: sr st & cons instr

596 Transportation Facilities Design. 3 cr. U/G. Physical design of transportation facilities including geometric design, pavements, and terminals for highway, rail, air and water transportation. Student project work will be required. Prereq: Civ Eng 335(C) & 490(P)

598 Pavement Analysis and Design. 3 cr. U/G. Pavement types, design factors, traffic loading and volume, materials characterization, drainage design, flexible and rigid pavements design, stresses and deflections, overlay design, pavement rehabilitation. Prereq: jr st & Civ Eng 335(P); or grad st

610 Introduction to Water and Sewage Treatment. 3 cr. U/G. Characteristics of water and sewage. Principles of physical, chemical and biological processes for water and sewage treatment. Design project. Prereq: sr st; Civ Eng 511(P)

614 Hazardous Waste Management. 3 cr. U/G. Hazardous waste; regulatory process; fate and transport of contaminants; treatment and disposal methods; site remediation; quantitative risk assessment; design project. Prereq: Civ Eng 413(P)

691 Topics in Civil Engineering: (Subtitled). 1-3 cr. U/G. Topics vary. Study of topics in theory and practice of civil engineering. Specific topics and any additional prerequisites will be announced in Timetable each time the course is offered. Retakeable for max of 6 cr. Prereq: jr st

699 Independent Study. 1-3 cr. U/G. - May be retaken to max of 6 cr toward the undergraduate degree. Prereq: jr st; cons instr

701 Advanced Strength of Materials. 3 cr. G. Beams of elastic foundations; advanced energy methods; thick walled cylinders; torsion of non-circular sections; approximate methods for stresses in plates, stress concentrations, contact stresses, interaction curves, elastic and inelastic buckling, introduction to elasticity. Some laboratory, matrix, and tensor applications. Prereq: grad st; Civ eng 303(P) & 401(C) or cons instr

702 Elastic Stability. 3 cr. G. Sending of bars under simultaneous action of axial and lateral loads; buckling of compressed bars, rings, and tubes; lateral buckling of beams; torsion of i-beams; buckling of thin plates. Prereq: grad st. Civ Eng 401(P) ElecEng 234(P)

710 Industrial Waste Treatment. 3 cr. G. Principles and theories of treating industrial wastes. Characterization of industries and their wastes. Treatment processes including tertiary and advanced wastewater separation techniques. Hazardous wastes management. Administration of industrial waste control. Programs. Prereq: grad st; Civ Eng 521(P) & 610(P) or cons instr

711 Water Resource Planning and Systems Analysis. 3 cr. G. Programming and optimization theory applied to water resources. Ground water systems analysis. Multi-level optimization of systems analysis for water supply and pollution control. Systems simulation for regional analysis. Economic evaluation. Prereq: grad st; Civ Eng 411(P) or cons instr

712 Ground Water Flow and Seepage. 3 cr. G. Linear and non-linear seepage laws; theoretical models; electro-osmosis in soils; analytical solution to steady state problems; numerical solutions to transcient problems; analytical solutions to transient problems; experimental methods and models; design of dewatering systems. Prereq: grad st; Civ Eng 411

713 Design Of Environmental Engineering Systems. 3 cr. G. Principles and analysis of environmental systems involving surface and groundwater. Methods of environmental engineering processes, planning design, and management of water and land systems. Prereq: grad st; Civ Eng 511(P) & 610(P) or equiv

714 Unit Operations in Environmental Engineering. 3 cr. G. Unit operations of physicochemical and biological aspects employed in water and wastewater treatments. In-situ treatment of contaminated groundwater. Theory and development of design criteria. Prereq: grad st; Civ Eng 610(P); cons instr

716 Sediment and Pollutant Transport. 3 cr. G. Sediment properties; incipient motion, bed forms, suspended load, bed load, river processes. Pollutant diffusion theories; longitudinal dispersion, vertical and transverse mixing in open channel flow. Prereq: grad st; Civ Eng 411(P)

717 Open Channel Flow. 3 cr. G. Basic equations of continuity, mechanical energy and momentum; uniform, gradually varied, and spatially varied flows; hydraulic structures; governing equations of unsteady flow and numerical solutions. Prereq: grad st; Civ Eng 411(P) or equiv

720 Solid Wastes Engineering. 3 cr. G. Concepts in designing solid wastes collection, processing, and disposal systems; combustion by incineration, fluidized beds; landfill; composting; pollution problems; recycling; systems approach to design. Prereq: grad st; Civ Eng 610(P)

721 Advanced Water Analysis. 3 cr. G. Advanced analytical methods for evaluating sources, distribution patterns, concentrations, and biological effects of pollutants in natural waters. Tracers, nuclear techniques, organics, metals, bioassays. Lecture and laboratory. Prereq: grad st; Civ Eng 521(P) or cons instr

725 Finite Element Methods in Engineering. 3 cr. G. Formulation and assembly of finite elements. Tools in numerical analysis, interpolation, integration. Trusses, beams, plates, two-dimensional problems. Generalized field problems: heat transfer, fluid flow. Emphasis on practical application. Prereq: grad st

726 Mechanical Vibrations. 3 cr. G. Free and forced vibrations of multiple degree of freedom systems using modern matrix methods. Not open to students who have cr in MechEng 726, which is identical to Civ Eng 726. Prereq: grad st; MechEng 475 or equiv

731 Properties of Concrete. 3 cr. G. Advanced course in portland cement concrete; proportioning methods, theories of hardening and setting, properties, prefabricated concrete, precast concrete, construction methods, light-weight aggregates and concrete, causes of disintegration, protective treatments, specifications, cost estimates. Prereq: grad st; cons instr

732 Fatigue in Engineering Materials. 3 cr. G. Influence of repeated stress in engineering design, fatigue testing machines, and procedures, factors influencing fatigue properties, theories of fatigue failure. Prereq: Civ Eng 401(P) or cons instr

735 Advanced Soil Mechanics. 3 cr. G. Advanced treatment and application of theories and principles of soil mechanics; permeability and seepage; elastic theories of stress distribution; consolidation theories; shearing strength and failure criteria; plastic equilibrium. Prereq: grad st; Civ Eng 335(P)

755 Soil and Foundation Dynamics. 3 cr. G. Dynamic properties of soils; analysis of block and pile foundations for vibrating and impact loads; analysis of retaining structures and slopes subjected to seismic loading. Prereq: grad st; Civ Eng 456(P)

756 Advanced Foundation Engineering. 3 cr. G. Critical study of actual engineering projects; introduction to existing design procedures and the basis for foundation recommendations. Prereq: grad st; Civ Eng 456(P)

761 Matrix Methods of Structural Analysis. 3 cr. G. Generation of structural matrices; analysis of two and three dimensional structures utilizing matrix stiffness techniques; solution of large structural systems. Prereq: grad st; Civ Eng 360(P)

771 Advanced Concrete Design. 3 cr. G. Advanced topics in design of concrete structures; structural systems & bracing, two-way slab, walls, construction phase assessment, joints & ductility, design for fire, seismic design. Prereq: grad st; Civ Eng 571(P)

772 Advanced Steel Design. 3 cr. G. Advanced topics in design of steel structures; plate girders, moment resisting frames, stability & bracing, connections, torsion, seismic design, fatigue & fracture. Prereq: grad st; Civ Eng 572(P)

773 Advanced Dynamics. 3 cr. G. General theory of dynamic behavior from the viewpoint of Lagrangian and Hamiltonian mechanics. Application of energy principles to dynamical analysis of mechanical systems. Not open to students who have cr in Civ Eng 773, which is identical. Prereq: grad st; MechEng 580(P) or Civ Eng 580(P); or cons instr

774 Shock and Vibration Analysis. 3 cr. G. Dynamic response of mechanical systems to complex shock and vibration conditions; application of the eigenvalue and transform methods of analysis to the solution of engineering problems. Not open to

students who have cr in MechEng 774, which is identical to Civ Eng 774. Prereq: grad st; MechEng 475(P) & 580(P)

775 Analysis and Design of Bridges. 3 cr. G. Analysis of thin-walled members; aashto leadings and specifications; design of steel and concrete i-shaped and box girders; construction techniques; computer applications. Prereq: grad st; Civ Eng 366(P); 371(P); 401(P) or cons instr

777 Design of Multistory Buildings. 3 cr. G. Topics in design of multistory building systems; planning & environmental criteria, loading, analysis, design, construction, lateral systems, foundation, cladding, building service & management. Prereq: grad st; Civ Eng 571(P), 572(P)

785 Dynamics of Structures. 3 cr. G. Analysis and design of structures subjected to dynamic loads; effects of damping and inelastic action; multi-degree of freedom and continuous systems; numberical techniques; seismic design. Prereq: grad st; ElecEng 234(P); Civ Eng 761(R) or cons instr

790 Transportation Systems Design. 3 cr. G. Principles of systems analysis as they relate to the planning, design and operation of transportation systems. Model building, evaluation, systems management. Prereq: grad st; Civ Eng 590(P)

792 Methods of Transportation Analysis. 3 cr. G. Mathematical tools useful in analysis of transportation systems. Process of modeling and simulation, matrix techniques, network analysis, statistical analysis, etc. As related to transportation. Use of standard packaged computer programs. Class project may be utilized to develop these skills. Prereq: grad st; CompSci 151(P) or equiv. Civ Eng 590(P)

794 Traffic Planning and Operations. 3 cr. G. Planning and design of traffic systems, delay and capacity of signalized intersections, freeway controls, traffic system management and optimization, queues, traffic assignment and simulation. Prereq: grad st; Civ Eng 592(C)

801 Applied Elasticity. 3 cr. G. Equations of elasticity in two and three dimensions; two dimensional problems in rectangular polar and curvilinear coordinates; torsion of noncircular shafts; bending of prismatic bars. Prereq: grad st; Civ Eng 401(P) or cons instr

804 Theory of Plasticity. 3 cr. G. Yield conditions, stress strain relations; plastic potential, hardening theories, torsion, bending, thick walled spherical and cylindrical shells under internal pressure; plane strain of perfectly plastic material. Prereq: Civ Eng 805(P)

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee for 1 cr assessed. Prereq: grad st

890 Advanced Topics in Engineering Mechanics. (Subtitled). 1-3 cr. G. Topics vary. Study and discussion of advanced topics of current interest in mechanics. Students will prepare reports or designs using the latest developments in mechanics literature. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st

891 Advanced Topics in Civil Engineering. (Subtitled). 1-3 cr. G. Topics vary. Study of advanced topics of theory and practice of structural engineering. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st

940 (effective 01/24/2005) Topics in Transportation. (Subtitled). 1-3 cr. G. Topics vary. Topics and problems of current interest in transportation; readings and review of recent literature and development of a critical analysis or paper. Subject matter may be student initiated. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st.

940 Topics in Transportation. (Subtitled). 1-3 cr. G. Topics vary. Topics and problems of current interest in transportation; readings and review of recent literature and development of a critical analysis or paper. Subject matter may be student initiated. Specific topic and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakeable with change in topic to max of 9 cr. Prereq: grad st.

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

995 Masters Design Project. 1-9 cr. G. - Prereq: grad st; cons instr

997 Doctoral Internship. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog Comm

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog Comm

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st; cons instr & grad prog committee

Computer Science (COMPSCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

417 (517) Introduction to the Theory of Computation. 3 cr. U/G. Introduction to formal languages, grammars and automata. Finite state automata, pushdown automata, turing machines. Regular, context-free recursive and recursively enumerable languages. Decidability. Prereq: Math 221(P) or 232(P), grade of C or better in CompSci 217(P)

422 Introduction to Artificial Intelligence. 3 cr. U/G. Introduction to core techniques and broad survey of AI. Topics include: Lisp, heuristic search, knowledge representation, planning, vision, learning. Prereq: jr st; C or better in CompSci 217(P) & 252(P)

423 Introduction to Natural Language Processing. 3 cr. U/G. Introduction to natural language processing programs and an overview of the field. Topics include syntactic frameworks, parsing, semantics, interpretation, and applications. Prereq: Jr st; C or better in CompSci 252(P) & 417(517)(P)

431 (631) Programming Languages Concepts. 3 cr. U/G. Examination of abstract features of languages. Study of syntactic and semantic models; design and programming in procedural, object-oriented, functional and logical languages. Implementation methods. Prereq: soph st; grade of C or better in CompSci 252(P)

438 (effective 05/23/2005) Software Engineering Laboratory. 1-6 cr. U/G. Software projects involving definition, design, development, documentation and implementation of software systems. May be retaken with change of topic to 6 cr max. Prereq: jr st; C or better in CompSci 251(P)

438 Software Engineering Laboratory. 1-6 cr. U/G. Software projects involving definition, design, development, documentation and implementation of software systems. May be retaken with change of topic to 6 cr max. Prereq: jr st; C or better in CompSci 252(P)

458 Computer Architecture. 3 cr. U/G. Processor organization and design; memory organization; microprogramming and control unit design; I-O organization; case studies of selected machine architectures. Jointly offered with & counts as repeat of ElecEng 458. Prereq: jr st; CompSci 215(P) or ElecEng 354(P)

459 (effective 05/23/2005) Fundamentals of Computer Graphics. 3 cr. U/G. Scan-line algorithms, object representation, homogeneous coordinates, geometric transformations, viewing curves, illumination models, interactive input methods, texture mapping. Prereq: jr st; Math 233(P); Math 234(P) or ElecEng 234(P); CompSci 251(P) or 252(P)

459 Fundamentals of Computer Graphics. 3 cr. U/G. 2 and 3D point computations. Computer manipulation and perspective transformations of figures. Curved line and surface calculations: Spline, Beizer, and B-Spline. Soft and hard copy graphical devices. Prereq: jr st; CompSci 217(P) & 252(P)

469 (effective 05/23/2005) Introduction to Computer Security. 3 cr. U/G. Privacy and authenticity of data and programs, communication, operating systems, network and database security, computer viruses, cryptography, private and public key cryptosystems, protocols. Prereq: jr st; C or better in both CompSci 217(P) & 201(P)

469 Introduction to Computer Security. 3 cr. U/G. Privacy and authenticity of data and programs, communication, operating systems, network and database security, computer viruses, cryptography, private and public key cryptosystems, protocols. Prereq: Jr st; C or better in both CompSci 217(P) & 252(P)

511 (effective 01/24/2005) Symbolic Logic. 3 cr. U/G. First-order predicate calculus; formal properties of theoretical systems; chief results of modern mathematical logic; advanced topics such as completeness and computability. CompSci 511, Math 511, & Philos 511 are jointly offered & count as repeat of each other. Prereq: jr st & either Philos 212(P) or 6 cr Math at the 300-level or above; or grad st.

520 (620) (effective 05/23/2005) Computer Networks. 3 cr. U/G. Layered network architecture, protocols, data transmission, local area networks, multiplexing and switching, routing flow and congestion control, internetworking, wireless networking, network reliability and security. Prereq: jr. st; CompSci 215(P) or CompSci 458(P) or ElecEng 367(P)

520 (620) Computer Networks. 3 cr. U/G. Layered network architecture, protocols, data transmission, local area networks, multiplexing and switching, routing flow and congestion control, internetworking, wireless networking, network reliability and security. Prereq: grade of C or better in CompSci 152(P); ElecEng 367(P) or grade of C or better in CompSci 215(P)

535 Data Structures and Algorithms. 3 cr. U/G. Introduction to abstract data structures, analysis of time and space requirements of numerical and nonnumerical algorithms methods for data manipulation. Prereq: jr st; C or better in both CompSci 217(P) & 252(P)

536 (effective 05/23/2005) Introduction to Software Engineering. 3 cr. U/G. Software engineering, the software life cycle, qualities of software; design, specification and verification of software, programming environments and tools, object oriented programming. Prereq: jr st; grade of C or better in CompSci 251(P)

536 Introduction to Software Engineering. 3 cr. U/G. Software engineering, the software life cycle, qualities of software; design, specification and verification of software, programming environments and tools, object oriented programming. Prereq: jr st; grade of C or better in CompSci 252(P)

537 Introduction to Operating Systems. 4 cr. U/G. Process management including scheduling, concurrency, synchronization, and deadlock; memory management, I/O management and disk scheduling, file systems, distributed operating systems. Systems programming. Prereq: jr st; CompSci 431(631)(P) or 535(P); grades of C or better in CompSci 215(P) & 217(P)

552 Object-Oriented Programming. 3 cr. U/G. An advanced course in object-oriented programming. Abstraction; single and multiple inheritance; dynamic binding of functions; polymorphic types and operators; survey of object-oriented techniques. Prereq: jr st; CompSci 431(631)(P)

557 (effective 05/23/2005) Introduction to Database Systems. 3 cr. U/G. General database system concepts. Physical data organization. Data models and database systems. Database design theory. Query optimization. Transaction management. Logic and database. Prereq: jr st; CompSci 215(P) & 251(P) or equiv

557 Introduction to Database Systems. 3 cr. U/G. General database system concepts. Physical data organization. Data models and database systems. Database design theory. Query optimization. Transaction management. Logic and database. Prereq: CompSci 215(P) & 252(P) or equiv

654 (effective 01/24/2005) Introduction to Compilers. 4 cr. U/G. Fundamentals of compiler construction for modern programming languages. Syntax analysis, table organization, storage administration, semantic routines and code generation Prereq: jr st; CompSci 417(P) & 431(631)(P)

654 Introduction to Compilers. 4 cr. U/G. Fundamentals of compiler construction for modern programming languages. Syntax analysis, table organization, storage administration, semantic routines and code generation Prereq: jr st; CompSci 417(P) & 431(631)(P)

657 (effective 01/24/2005) Topics in Computer Science: (Subtitled). 1-4 cr. U/G. Lectures on recent advances in computer science. Specific credits and any additional prerequisites will be announced in Timetable whenever course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st

657 Topics in Computer Science: (Subtitled). 1-4 cr. U/G. Lectures on recent advances in computer science. Specific credits and any additional prerequisites will be announced in Timetable whenever course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st

699 Independent Study. 1-3 cr. U/G. - May be repeated to max of 6 cr by undergraduates. Prereq: jr st; cons instr

704 Analysis of Algorithms. 3 cr. G. Introduction to concrete complexity theory and efficient algorithms. Fast data structure and graph algorithms, matrix multiplication, algebraic and numeric algorithms, reducibilities and np-completeness. Exponential and non-elementary lower bounds. Prereq: grad st; CompSci 217(P) & 535(P)

710 Artificial Intelligence. 3 cr. G. AI programming, search techniques game playing, knowledge representation, knowledge acquisition, expert systems, selected topics from learning. Natural language understanding, vision and robotics. Not open to students who have cr in ElecEng 710, which is identical to CompSci 710. Prereq: grad st; CompSci 252(P) & 535(P)

711 Pattern Recognition - Statistical, Neural, and Fuzzy Approaches. 3 cr. G. Theoretical analysis of statistical, neural, and fuzzy techniques for pattern classification and clustering. Study of learning algorithms; and applications. Not open to students who have cr in Eleceng 711 which is identical to Compsci 711. Prereq: grad st; cons instr

712 Image Processing. 3 cr. G. This course covers the materials required to process and enhance photographic images, remote sensor multispacial scanner data and others. Topics include transform techniques, recorders, discriminate function, and associated hardware. Prereq: grad st; cons instr

713 Computer Vision. 3 cr. G. Fundamental issues and current research in computer vision. Topics in early or low-level vision, intermediate vision or perceptual organization, and high-level vision or object recognition. Prereq: grad st; ElecEng 423(P) or cons instr

714 Computational Geometry. 3 cr. G. Special data structures and algorithmic techniques for representing and minipulating geometric objects, such as points, lines and polygons. Applications to vlsi design and robotics. Prereq: grad st; CompSci 535(P)

720 Computational Models of Decision Making. 3 cr. G. Theoretical foundations and practical problems of formulating and constructing computational models of decision making. Prereq: basic course in Probability or Statistics

722 Artificial Intelligence Planning Techniques. 3 cr. G. Algorithms and representations for classical and more expressive planning, search control techniques, study and comparison of a variety of planners, applications of planning. Prereq: grad st; Comp Sci 535(P)

723 Natural Language Processing. 3 cr. G. Principles and problems of natural language processing with emphasis on recent advances and open problems. Topics: lexicons, parsing, interpretation, discourse structure, generation, and collaborative interfaces. Not open to students with cr in CompSci 423. Prereq: grad st; CompSci 422(P) or 710(P)

724 Distributed Algorithms. 3 cr. G. Identification of canonical problems in distributed computing, design and analysis of algorithms to solve these problems. Formal proof techniques and impossibility results. Prereq: grad st; CompSci 517(P), 535(P), or 523(P)

730 Advanced Computer Networks. 3 cr. G. Network architecture, protocols, routing, congestion control, traffic management, ATM, optical networks, TCP/IP, LANs, WANs, QOS, wireless and mobile networks, mobility management, security, multimedia, network management. Prereq: CompSci 520 (P)

732 Type Systems for Programming Languages. 3 cr. G. Lambda calculus, simple types, record types, subtypes, polymorphic types, type reconstruction, universal types, bounded quantification, higher-order types. Prereq: grad st; CompSci 431(P) & 654(P)

743 Intelligent User Interfaces. 3 cr. G. Principles, methods, and current research in intelligent user interfaces including applications, architectures, knowledge representation, and evaluation. Prereq: grad st

747 Human-Computer Interaction. 3 cr. G. Survey of principles, practice, and current research in human-computer interaction including hci theories, design processes, assessment techniques, and tools. Prereq: grad st

751 Switching and Automata Theory. 3 cr. G. Boolean algebra; special boolean functions; fault detection in logic circuits; linear sequential machines; cellular arrays; automata and regular expressions; formal languages; computability and tuting machines. Not open to students who have cr in ElecEng 751 which is identical to CompSci 751. Prereq: grad st; CompSci 458(P) or ElecEng 354(P)

754 Compiler Construction and Theory. 3 cr. G. Theory and practice of constructing translators for high level languages; parsing context-free languages, table building, code generation and optimization, syntax-directed compilation. Prereq: grad st; CompSci 654(P)

755 Information and Coding Theory. 3 cr. G. Information measures, entropy, source coding, channon's theorems, channel capacity, error correcting codes, linear codes, convolutional codes, arithmetic codes, encoding and decoding algorithms. Prereq: grad st

757 Data Base Organization and File Structure. 3 cr. G. Introduction to automatic information organization and retrieval. Dictionary construction and operation, statistical and syntactic operations, performance evaluation of retrieval systems, design of query languages, models of database systems, database security. Prereq: grad st; CompSci 217(P) & 535(P)

758 Advanced Computer Architecture. 3 cr. G. Advanced topics in computer architecture including pipeline processing, multiple and parallel processing systems, performance enhancement issues and vlsi computing structures. Not open to students who have cr in ElecEng 758, which is identical to CompSci 758. Prereq: grad st; CompSci 458(NP) or ElecEng 458(NP)

759 Data Security. 3 cr. G. Protection of data in computer and communication systems, cryptography, classical one key and public key cryptosystems, database protection, operating system security. Prereq: grad st; CompSci 217(P) & 536(P)

760 Computer Systems Performance Evaluation. 3 cr. G. Performance measurement and tools, workload characterization, markov models, queueing theory, simulation, benchmarks, data analysis, parallel systems performance analysis. Not open to students who have cr in ElecEng 760, which is the same as CompSci 760. Prereq: grad st; CompSci 458(P) or ElecEng 458(P)

762 Fault-Tolerant Computing. 3 cr. G. Faults in digital circuits, fault detection, fault location, system reconfiguration or repair, system recovery, design for testibility, self-checking circuits, fault-tolerant interconnection networks, systems level fault-diagnosis, fault-tolerant software. Not open to students with cr for ElecEng 762. Prereq: grad st; ElecEng 354(P)

780 Multimedia Systems. 3 cr. G. Survey of principles and applications of multimedia computer systems. Media fundamentals. Networking, architecture, software engineering, and user interface issues. Prereq: CompSci 537(P)

790 Advanced Topics in Computer Science: (Subtitled). 3 cr. G. Discussion of special advanced topics in theoretical as well as applied areas in computer science. Retakable w/chg in topic to 9 cr max. Specific topics may be jointly-offered w/Philos. Prereq: grad st; add'l prereqs depending on topic.

810 Knowledge Representation. 3 cr. G. Study of the design and properties of formalisms for representing knowledge in computational systems. Topics include: first-order logic, nonmonotonic logic, uncertainty, time, space, beliefs, plans. Prereq: grad st; CompSci 710(P)

838 Program Analysis. 3 cr. G. Static techniques for determining run-time properties of a program: data-flow analysis, abstract interpretation. Prereq: grad st; CompSci 754(P) or 732(P) or equiv or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog committee

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st; cons instr & grad prog comm

Electrical Engineering (ELECENG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

402 Control Systems Theory. 3 cr. U/G. Basic control system analysis with the use of time and frequency domain methods. Prereq: jr st; ElecEng 234(P)

410 Digital Signal Processing. 3 cr. U/G. Spectral computation including DFT and FFT, sampling of continuous signals, digital filter design including FIR and IIR filters. Prereq: jr st; ElecEng 310(P)

420 Random Signals and Systems. 3 cr. U/G. Fundamental probability and random process theory, power spectral density. Linear systems and random signals, auto- and cross-correlation, optimum MSE filter design. Prereq: jr st; ElecEng 310(P); or grad st

421 Communication Systems. 3 cr. U/G. Basic concepts of information; modulation, transmission and demodulation; presentation of information; practical communication systems. Prereq: jr st; ElecEng 335(C) or 332(P)

429 Wireless Communication Systems. 3 cr. U/G. Design and analysis of wireless communication systems: information content and spectrum considerations, cellular concepts, mobile radio propagation, multiple access techniques, wireless networking, antennas and sensors. Prereq: jr st; Eleceng 234(P)

436 Introduction to Medical Instrumentation. 3 cr. U/G. Biopotential signals and electrodes; Biopotential Amplifiers and Signal Processing; Basic Sensors and Principles; Medical Imaging Systems; Electrical Safety; Laboratory Experiments. Prereq: jr st; ElecEng 330(P) or 331(P) or equiv

451 Introduction to VLSI Design. 3 cr. U/G. Introduction to design of VLSI circuits. Ic fundamentals including: energy band diagrams, transistor optimization, design approaches including both customs and semi-custom. Prereq: jr st; ElecEng 330(P) or 331(P), & 354(P)

457 Digital Logic Laboratory. 3 cr. U/G. Experimentation with digital logic systems. Synthesis of digital systems, such as adders, shift registers. Analog/digital and digital/analog converters from basic logic modules. Prereq: jr st; ElecEng 330(P) or 331(P), & 354(P)

458 Computer Architecture. 3 cr. U/G. Processor organization and design; memory organization; microprogramming and control unit design; I-O organization; case studies of selected machine architectures. Not open to students with cr in CompSci 458. Prereq: CompSci 215(P) or ElecEng 354(P) or 407(P)

461 Microwave Engineering. 3 cr. U/G. Review from electromagnetics, transmission lines and waveguides; impedance matching, passive components, stripline and microstrip line circuits, dielectric waveguide, laboratory experiments, industrial and biomedical applications. Prereq: jr st; ElecEng 361(P) or equiv

462 Antenna Theory. 3 cr. U/G. Analysis and design of antennas: antenna fundamentals; wire antennas; dipole, monopole, and loop antennas; antenna arrays; aperture antennas; horn, slot, and parabolic dish antennas. Prereq: ElecEng 361(P)

465 Broadband Optical Networks. 3 cr. U/G. Multichannel lightwave systems based on wavelength-division, time-division, and subcarrier multiplexing; optical devices and coding techniques for implementing optical networks. Counts as repeat of ElecEng 490(690) w/same topic. Prereq: jr st; ElecEng 305(P) & 361(P); or grad st

471 Electric Power Systems. 3 cr. U/G. Elements of a typical power system. Per-unit quantities; load flow study; economic dispatch; symmetrical components; fault study; system protection; stability. Prereq: jr st; ElecEng 362(P)

474 (402) (effective 01/24/2005) Introduction to Control Systems. 4 cr. U/G. Modeling of continuous systems; stability considerations, analysis and design of feedback control systems in time and frequency domains. Not open for cr to students w/cr in ElecEng 402. Prereq: jr st;

ElecEng 310(P), CivEng 202(P) or cons instr; or grad st.

490 (690) (effective 01/24/2005) Topics in Electrical Engineering: (Subtitled). 1-3 cr. U/G. Specific topics, credits, and any additional prerequisites will be announced in the Timetable each time the course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st

490 (690) Topics in Electrical Engineering: (Subtitled). 1-3 cr. U/G. Specific topics, credits, and any additional prerequisites will be announced in the Timetable each time the course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st

503 Intermediate Control Systems. 3 cr. U/G. Synthesis of compensatory networks, analysis of nonlinear systems, sampled data systems, systems with statistically specified inputs. Prereq: sr st; ElecEng 402(P)

541 Integrated Circuits and Systems. 3 cr. U/G. Differential and operational amplifier circuits. Linear integrated circuits: comparators, regulators, amplifiers and phase locked loops. Digital integrated circuits: mos shift registers, ram, a-to-d converters. Prereq: jr st; ElecEng 330(P) or 331(P)

561 Microwave Solid State Circuit Design. 3 cr. U/G. Transmission lines and matching techniques, S-parameters, design of various amplifiers and oscillators using BJTs and MOSFETs. Prereq: sr st; ElecEng 330(P) or 331(P)

562 Telecommunication Circuits. 3 cr. U/G. Radio frequency communication systems, terrestrial and satellite communication systems, mixers, oscillators, filters, design considerations for receivers and transmitters. Prereq: sr st; ElecEng 330(P) or 331(P)

565 Optical Communication. 3 cr. U/G. Overview of communication systems, light and electromagnetic waves, optical fibers, lasers, led, photodetectors, receivers, optical fiber communication systems. Prereq: sr st; ElecEng 361(P), & 335(C) or 332(P)

572 Power Electronics. 3 cr. U/G. Power diodes and transistors; static converters; D.C. power supplies; power transistor circuits; SCR's; classical and modern forced-commutation inverters; choppers; cycloconverters, applications in power. Prereq: sr st; ElecEng 335(C) or 332(P)

574 (503) (effective 01/24/2005) Intermediate Control Systems. 3 cr. U/G. State space; frequency domain methods of modelling, analysis and design of control systems; digital control; and multivariate systems. ElecEng 574(503) & MechEng 574(478) are jointly offered & count as repeats of each other. Not open for cr to students who have cr in ElecEng 503(ER) or MechEng 478(ER). Prereq: sr st; MechEng 474(P) or ElecEng 474(402(P); or grad st

575 Analysis of Electric Machines and Motor Drives. 3 cr. U/G. Reference frame analysis, computer simulation, permanent magnet synchronous machines, induction machines, power electronic inverters, pulsewidth modulation, vector control. Prereq: jr st,EelecEng 331(P) & 362(P)

699 Independent Study. 1-3 cr. U/G. - May be retaken to max of 6 cr toward the undergraduate degree. Prereq: jr st; cons instr

701 (effective 01/24/2005) Advanced Linear System Analysis. 3 cr. G. Theory and analysis of linear dynamic systems; discrete and continuous state models; linear algebra for dynamic systems; state transition matrix, numerical methods; and applications. ElecEng 701 & MechEng 701 are jointly offered and count as repeats of one another. Prereq: grad st

701 Advanced Linear System Analysis. 3 cr. G. Selected topics in applied systems analysis for engineers; state variable system representation, vector and matrix algebra, transform theory and complex variable theory. Application of state space methods to circuits, controls and computers. Prereq: ElecEng 234

710 Artificial Intelligence. 3 cr. G. Programming, search techniques game playing, knowledge representation, knowledge acquisition, expert systems. Selected topics from learning. Natural language understanding, vision and robotics. Not open to students who have cr in CompSci 710. Prereq: grad st; CompSci 252 & 535

711 Pattern Recognition - Statistical, Neural, and Fuzzy Approaches. 3 cr. G. Theoretical analysis of statistical, neural, and fuzzy techniques for pattern classification and clustering. Study of learning algorithms; and applications. Not open to students who have cr in Compsci 711 which is identical to Eleceng 711. Prereq: grad st; cons instr

712 Image Processing. 3 cr. G. This course covers the materials required to process and enhance photographic images, remote sensor multispacial scanner data and others. Topics include transform techniques, recorders, discriminate function, and associated hardware. Prereq: grad st; cons instr

713 Computer Vision. 3 cr. G. Fundamental issues and current research in computer vision. Topics in early or low-level vision, intermediate vision or perceptual organization, and high-level vision or object recognition. Prereq: grad st; ElecEng 423(P) or cons instr

718 (effective 01/24/2005) Nonlinear Control Systems. 3 cr. G. Advanced concepts and methodologies in modeling and design of nonlinear control systems. Lyapunov theory; describing functions; variable structure control. ElecEng 718 & MechEng718 are jointly offered and count as repeats of one another. Not open for credit to students w/ cr in MechEng 778. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

718 Advanced Nonlinear Systems Analysis. 3 cr. G. Survey of methods of solving nonlinear problems in engineering; linearization techniques, graphical and numerical methods; classical analytical solutions by elliptic integrals and energy methods; modern nonlinear stability criteria. Prereq: ElecEng 701

721 Digital Communications. 3 cr. G. Fundamentals of design and analysis of digital communication systems in the presence of noise; application of satellite, phone, and computer communication systems. Prereq: grad st, ElecEng 421 or cons instr

741 Electromagnetic Fields and Waves. 3 cr. G. Propagation, radiation and scattering of electromagnetic waves and their applications in electrical engineering. Prereq: grad st; Eleceng 361 or equiv

742 Electromagnetic Wave Theory. 3 cr. G. Dyadic green's functions and tensors; integral equation methods, scattering from randomly rough surfaces; dynamical radiation models for microstrips;

surface wave guides; time domain approaches. Grad st; ElecEng 361

751 Switching and Automata Theory. 3 cr. G. Boolean algebra, special boolean functions; fault detection in logic circuits; linear sequential machines; cellular arrays; automata and regular expressions; formal languages; computability and turing machines. Not open to students who have cr in CompSci 751. Prereq: grad st; ElecEng 354 or CompSci 458

755 Information and Coding Theory. 3 cr. G. Information measures, entropy, source coding, shannon's theorems, channel capacity, error correcting codes, linear codes, convolutional codes, arithmetic codes, encoding and decoding algorithms. Prereq: grad st

758 Advanced Computer Architecture. 3 cr. G. Advanced topics in computer architecture including pipeline processing, multiple and parallel processing systems, performance enhancement issues and vlsi computing structures. Not open for cr to students with cr in CompSci 758, which is identical to ElecEng 758. Prereq: grad st; CompSci 458 or ElecEng 458

760 Computer Systems Performance Evaluation. 3 cr. G. Performance measurement and tools, workload characterization, markow models, queueing theory, simulation, benchmarks, data analysis, parallel systems performance analysis. Not open to students who have cr in CompSci 760, which is the same as ElecEng 760. Prereq: grad st; & CompSci 458(P) or ElecEng 458(P)

762 Fault-Tolerant Computing. 3 cr. G. Faults in digital circuits, fault detection, fault location, system reconfiguration or repair, system recovery, design for testability, self-checking circuits, fault-tolerant interconnection networks, systems level fault-diagnosis, fault-tolerant software. Not open to students with cr in CompSci 762, which is identical to ElecEng 762. Prereq: grad st; ElecEng 354

765 Optical Information Processing and Holography. 3 cr. G. Two dimensional linear systems, scalar diffraction theory, imaging properties of lenses, optical imaging systems, spatial filtering, wavefront reconstruction. Prereq: grad st; Eleceng 701

766 Introduction to Nonlinear Optics. 3 cr. G. Characteristics and efficiency of various nonlinear optical processes that find applications in communications, signal processing and computing. Topics include optical switching devices, mixers and solitons. Prereq: grad st; ElecEng 361(P)

771 Advanced Electric Power Systems Theory. 3 cr. G. Basic transients, load switching and voltge recovery; abnormal transients, transformer inrush currents; traveling waves, lightning, tranient voltage distribution in transformer windings; integrated power system transients. Prereq: grad st; ElecEng 471

781 Advanced Synchronous Machinery. 3 cr. G. Machine construction, direct and quadrature axis reactances, steady state performance, unbalanced operating conditions, transient performance, motor starting, standards. Prereq: ElecEng 362

782 Dielectrics and High Voltage Insulation. 3 cr. G. The dielectric field; gaseous, liquid, and solid dielectrics; engineering applications; testing. Prereq: grad st; ElecEng 361

816 (effective 01/24/2005) Optimal Control Theory. 3 cr. G. Analysis and synthesis of discrete and continuous optimal control systems; linear quadratic regulators; dynamic programming and variational methods; applications. ElecEng 816 & MechEng 816 are jointly offered and count as repeats of one another. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

816 Optimal Control Theory. 3 cr. G. Analysis and synthesis of discrete and continuous optimal control systems; linear and nonlinear programming; pontryagin's maximum principle; variational methods; time optimal and fuel optimal systems. Prereq: ElecEng 701

819 (effective 01/24/2005) Adaptive Control Theory. 3 cr. G. Adaptive control systems including mathematical foundations, estimation, model reference adaptive control, self tuning regulators, numerical methods, applications. ElecEng 819 & MechEng 819 are jointly offered and count as repeats of one another. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

819 Adaptive and Self-Optimizing Control Theory. 3 cr. G. Study of model reference, self-organization and learning control systems; adaptive process identification and pattern recognition. Prereq: Eleceng 701

872 Computer Analysis of Electric Power Systems. 3 cr. G. Graph theory, matrix algebra and numerical analysis applied to computer solution of power system problems; mathematical models; algorithms and solution techniques for load flow and fault studies. Prereq: grad st & ElecEng 471

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Special Topics. (Subtitled). 3 cr. G. Lectures on special topics in electrical engineering. Variable content course. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated to max of 9 cr. Prereq: grad st

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

995 Masters Design Project. 1-9 cr. G. - Prereq: grad st; cons instr

997 Doctoral Internship. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st & cons instr

Engineering & Applied Science (EAS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-5 cr. U/G. Designed to enroll students in UWM sponsored program. Course work, level, content, and credits determined at the time of offering. Retakeable with change in topic to 12 cr max for undergrad & 9 cr max for grad. Prereq: acceptance to

Study Abroad Prog; cons CEAS assoc dean for academic prog

741 Legal Issues in Engineering Management. 3 cr. G. Legal principles and practice affecting management of engineering enterprises emphasizing intellectual property, product liability, contracts, uniform commercial code, regulatory issues and international legal issues. Prereq: grad st

Industrial/Manufacturing Engr (IND ENG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

450 Computer-Aided Manufacturing and Robotics. 3 cr. U/G. Basics of computer-aided manufacturing; numerical control, group technology, flexible manufacturing systems. Robotic applications in manufacturing; types, capabilities, programming, economics and selection. Prereq: Ind Eng 350(P) & 360(C)

455 Basic Optimization Techniques. 3 cr. U/G. Fundamental optimization methods; linear programming, integer programming, network models, and dynamic programming methods of operations research. Modeling and applications of these methods in practical situations. Prereq: jr st; ElecEng 234(P)

465 Operations Analysis. 3 cr. U/G. Concepts and methods of probabilistic modeling in queueing, forecasting, and inventory problems for design and analysis of manufacturing and service operations. Prereq: jr st; Ind Eng 467(P) or MthStat 467(P) or equiv course in statistics

467 Introductory Statistics for Physical Sciences and Engineering Students. 3 cr. U/G. Concepts of probability and statistics; probability distributions of engineering applications; sampling distributions; hypothesis testing; parameter estimation; regression analysis. Not open for cr for Math majors or students with cr in MthStat 362 or 465. IndEng 467 & MthStat 467 are jointly offered & count as repeats of one another. Prereq: jr st; Math 233(P)

470 Methods Engineering. 3 cr. U/G. Use of production machine for producing a simple product. Study of production sequence, material flow, plant layout; time and motion; and the economics of materials and methods of fabrication. Redesign of the product and the methods of production to minimize total costs within physical, social and aesthetic constraints. Prereq: jr st; Ind Eng 360(P)

475 Introduction to Computer Simulation. 3 cr. U/G. Fundamentals of discrete simulation. Random number and random variable generation for simulation modeling and analysis using simulation software. Prereq: Ind Eng 467(P)

540 Expert Systems for Engineering Applications. 3 cr. U/G. Application of expert system techniques to engineering problems, strengths and limitations of current artificial intelligence tools, artificial intelligence as a productivity-enhancement tool. Prereq: sr st; CompSci 151(P) or 152(P)

545 Metal Cutting. 3 cr. U/G. Study of the theory and practices of metal cutting, contemporary and future problems of removal processes, process optimization and cost analyses, critical review of current literature. Prereq: sr st; Ind Eng 350(P) or MatlEng 330(P), or cons instr

547 Nontraditional Manufacturing Processes. 3 cr. U/G. Theory and applications of nontraditional manufacturing processes. Study of their principles, equipment, process parameters and capabilities. Prereq: sr st; Ind Eng 350(P) or Matleng 330(P) or cons instr

555 Manufacturing Systems Integration. 3 cr. U/G. Integration and interfacing of computerized manufacturing systems, programmable logic controllers and sequential programming, sensor implementation strategies, automated fixturing and robotic workcell creation. Prereq: jr st; Ind Eng 450(R)

570 Statistical Quality Control. 3 cr. U/G. Statistical thinking and methods for quality improvement. Variable and attribute control charts; process capability and tolerance analysis. Case studies and computer workshops. Prereq: jr st; Ind Eng 467(P) or equiv course in statistics

571 Quality Control and Design of Experiments I. 3 cr. U/G. Statistical process control and design of experiments for quality improvement. Computer workshops on control charts and experiments. Prereq: jr st & Ind Eng 467(P) or equiv course in statistics; or grad st

572 Reliability Engineering. 3 cr. U/G. Concepts and methods for the design, testing, and estimation of component and system reliabilities. Failures and failure rates; life tests; series-parallel, and standby systems; stress levels; redundancy and reliability apportionment; maintainability, availability, and safety; reliability design and implementation. Prereq: jr st; Ind Eng 467(P) or equiv

575 Design of Experiments. 3 cr. U/G. Statistical principles, designs and analyses for planned experimentation; factorial and fractional factorial designs, inner-outer designs, robustness, confounding and blocking, and response surface methodology. Prereq: sr st; Ind Eng 467(P) or equiv

577 Dimensional Measurement and Tolerancing. 3 cr. U/G. Measurement techniques; implementation and integration of precision measuring equipment and gages in manufacturing systems; geometric dimensioning and tolerancing; and devices for statistical process control. Prereq: sr st & Ind Eng 467(P)

580 Ergonomics of Workplace. 3 cr. U/G. Broad study of ergonomics principles and stresses in design and analysis of workplaces and physical environment; 2 hrs lec & 2 hrs lab/week. Prereq: jr st

583 Plant Layout and Material Handling. 3 cr. U/G. Basics in facility planning; design and integration of plant layout, material handling, and warehousing; quantitative models for facility location problems. Prereq: Ind Eng 370(P) or sr st

585 Design of Production Systems. 3 cr. U/G. Projects involving design of production system for a specified product or service using industrial and manufacturing engineering techniques. Presentations, progress reports and final report. Prereq: sr st; Ind Eng 370(C), 450(C), 455(C), 465(C), 470(C)

587 Lean Manufacturing. 3 cr. U/G. An integrated approach to efficient manufacturing of products with high quality, low cost, and timely delivery including one-piece flow, pull system, and visual factory. Prereq: sr st; Ind Eng 465(P)

590 (effective 01/24/2005) Topics in Industrial and Systems Engineering. (Subtitled). 1-3 cr. U/G. Selected topics of current interest in an area of systems design. May be repeated with change in topic to max of 9 cr. Prereq: sr st

590 Topics in Industrial and Systems Engineering. (Subtitled). 1-3 cr. U/G. Selected topics of current interest in an area of systems design. May be repeated with change in topic to max of 9 cr. Prereq: sr st

671 Quality Control and Design of Experiments II. 3 cr. U/G. Statistical methods in quality control and design. Control charts of WEMA, Cusum, and bi-variates. Sequential, 3-level, and inner/outer designs. Response surface methodology. Prereq: sr st & Ind Eng 571(P); or grad st

699 Independent Study. 1-3 cr. U/G. - Limited to max of 6 cr applied toward undergraduate degree. Prereq: jr st; cons instr

705 Engineering Simulation Project. 3 cr. G. Project-based simulation modeling analysis concepts, art of simulation model building, and statistical analysis of simulation model input and output. Prereq: Ind Eng 467(P) or equiv course

716 Engineering Statistical Analysis. 3 cr. G. Statistical methods and their applications to solve engineering decision-making problems, integrating computer usage. Inference, probability and probability distributions, data analysis, regression analysis, and anova. Prereq: grad st

717 Operations Research in Engineering Management. 3 cr. G. Various operations research techniques for engineering management decision-making. Linear programming, integer programming, network models, multi-objective decision-making, decision analysis, and queuing models. Prereq: grad st; Ind Eng 716(P)

740 Intelligent Manufacturing Systems. 3 cr. G. Discussion and study of advanced computer control techniques related to manufacturing. Focus on application of artificial intelligence tools to manufacturing problems. Prereq: grad st; Ind Eng 450(P) or cons instr

750 Group Technology and Process Planning. 3 cr. G. Group technology and computer-aided process planning; classification and coding schemes, machine loading, production planning/scheduling models, process planning, expert systems in capp. Prereq: grad st; Ind Eng 450 & 455

751 Flexible Manufacturing Systems. 3 cr. G. Hierarchy of manufacturing control, process control, advanced concepts in fms, optimal design planning and production scheduling in fms. Prereq: grad st; Ind Eng 450 & 455

765 Operations Research Methods. 3 cr. G. Formulation and application of mathematical models for the design of industrial systems. Mathematical programming, network flow, decision theory and simulation techniques are used for solving single and multi-stage production, inventory and service problems. Prereq: grad st; Ind Eng 465 & 767

767 Statistical Methods for Engineers and Scientists. 3 cr. G. Elementary baysian decision theory. Prior, posterior and precictive distribution. Posterior and preposterior analysis of two action decision problems. Concept of likelihood functions for binomial poisson, exponential and normal distributions. Simple and multiple regression analysis. Introduction to autoregressive methods. Prereq: grad st; MthStat 361 or Ind Eng 467

770 Advanced Quality Control. 3 cr. G. Statistical considerations in acceptance sampling, rectifying inspection, and sequential procedures. Optimum design of shewhart, cumulative sum and other control charts, concepts, methods, and applications of adaptive quality control. Prereq: grad st; Ind Eng 570 & 572 or cons instr

772 Facilities Planning. 3 cr. G. Modern techniques in facilities planning, location of the facility; systems approach, factors and evaluation. Systematic layout planning, computerized methods. Assembly line balancing, simulation techniques. Cpm and pert. Projects and laboratory work. Prereq: grad st; Ind Eng 455 & 470

780 Advanced Ergonomics - Low Back Pain. 3 cr. G. An in-depth study of lbp causes, risk factors, preventive approaches, job evaluation/design techniques. 2 hr lec & 2 hr lab/week. Prereq: grad st; Ind Eng 580(P); a course in anatomy & physiology or cons instr

783 Advanced Ergonomics - Upper Extremity. 3 cr. G. In depth study of musculoskeletal disorders of upper extremity, personal and job risk factors, job analysis, design and prevention. 2 hr lec & 2 hr lab/week. Prereq: grad st; Ind Eng 580(P); a course in Anatomy & Physiology or cons instr

786 Applied Biostatistics in Ergonomics. 3 cr. G. Statistical methods used in ergonomic studies to analyze, summarize, and report measurements and data. 2 hr lec & 2 hr lab/week. Jointly offered with & counts as repeat of Nurs 786 & OccThpy 786. Prereq: grad st; Ind Eng 580(P); a course in statistics or cons instr

787 Issues in Ergonomics: Epidemiology. 1 cr. G. Concepts in epidemiological studies employed to study risk factors in ergonomic research. Design considerations, strengths and weaknesses of different types of studies. Jointly offered with & counts as repeat of Nurs 787 & OccThpy 787. Prereq: grad st; Ind eng 580(P); a course in statistics or cons instr

788 Legal Issues and Regulatory Agencies in Ergonomics. 1 cr. G. Understanding of ergonomic regulations, regulatory sets, and agencies' and workers' compensations laws. Jointly offered with & counts as repeat of Nurs 788 & OccThpy 788. Prereq: grad st; Ind eng 580(P); a course in statistics or cons instr

790 Design Project. 2-3 cr. G. Integration and application of concepts learned in other ergonomic courses to analyze and abate ergonomic hazards in a scientific manner. Jointly offered with & counts as repeat of Nurs 790 & OccThpy 790. Prereq: grad st; Ind Eng 780(P), 783(P), 786(P), 788(P); or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Advanced Topics in Industrial and Systems Engineering: (Subtitled). 1-3 cr. G. Topics vary. Advanced topics of current interest in an area of systems-design; review of recent literature. Subject matter may be student initiated. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

995 Masters Design Project. 1-9 cr. G. - Prereq: grad st; cons instr

997 Doctoral Internship. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st; cons instr & grad prog committee

Materials (MATLENG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

402 Physical Metallurgy. 3 cr. U/G. Crystal binding and electron theory of solids, phase diagrams, diffusion, nucleation and growth, recrystallization, precipitation hardening, solidification, austenite decomposition. Prereq: jr st; MatlEng 201(P)

410 Mechanical Behavior of Materials. 3 cr. U/G. Elastic, plastic, viscous behavior of materials, creep, fatigue, fracture, dislocation theories of crystal deformation. Prereq: jr st; admis to MatlEng major, & MatlEng 201(P); or grad st; or cons dept chair

421 Metal Casting Engineering. 3 cr. U/G. Pattern and core design; molding technology; pouring and feeding castings; metallurgy of cast engineering alloys and their foundry practice; cleaning and inspection; casting design. Prereq: jr st; MatlEng 201(P)

431 Welding Engineering. 3 cr. U/G. An engineering course on joining processes; reaction of materials to welding, brazing and soldering; distortion; process and material selection and structural engineering considerations. Prereq: jr st; MatlEng 201(P)

442 Thermodynamics of Materials. 3 cr. U/G. Third law of thermodynamics; application of thermodynamics to materials processes and systems; behavior of solutions; reaction equilibria. Prereq: jr st, admis to MatlEng major, MatlEng 201(P), & MechEng 301(P); or grad st; or cons dept chair

443 Transport and Kinetics in Materials Processing. 3 cr. U/G. The role of kinetics in materials processing including transport of mass, energy, and momentum. Prereq: jr st, MatlEng 442(P), & EleEng 234 (P); or grad st

451 Ceramic and Polymeric Materials. 3 cr. U/G. Properties of ceramic, polymeric and composite systems. Structure, bonding, imperfections and atomic mobility. Phase equilibria, grain growth, sintering and micro structure. Mechanical and physical properties. Prereq: jr st; MatlEng 201(P)

455 Engineering Composites. 3 cr. U/G. Study of the structure-property relationships in composite materials. Properties of fibers and other reinforcements, interfaces, matrix materials. Metal polymer and ceramic matrix composites. Prereq: MatlEng 201(P)

461 Corrosion Engineering. 3 cr. U/G. Technical and economic aspects of corrosion and corrosion control. Forms of corrosion, thermodynamics, kinetics, materials selection, design, and corrosion protection. Prereq: jr st; MatlEng 201(P)

465 Friction and Wear. 3 cr. U/G. Friction and wear of engineering materials. Effect of environment, surface interactions, lubrication, and material properties. Techniques of analysis and measurement. Not open to students who have cr in MechEng 465, which is identical to MatlEng 465. Prereq: jr st; MatlEng 201(P)

471 Heat Treatment of Materials. 3 cr. U/G. Study of the heat treatment processes and their effect on the microstructure and properties of metals. Emphasis is on steels, but all alloy systems of importance are covered. Prereq: jr st; MatlEng 201(P)

481 Electronic Materials. 3 cr. U/G. Electronic conduction in materials. Electronic phenomena in metals, semiconductors, and insulators. Materials production, characterization, and application to microelectronic devices, with particular emphasis on thin film technology. Prereq: jr st; MatlEng 201(P) or cons instr

690 Topics in Materials. (Subtitled). 3 cr. U/G. Lectures on special topics in materials engineering and science. May be repeated with change in topic to max of 9 cr. Prereq: jr st; cons instr

699 Independent Study. 1-3 cr. U/G. - Retakeable to max of 6 cr applied toward undergraduate degree. Prereq: jr st; cons instr

701 Properties of Solids. 3 cr. G. The applications of physics to the understanding of the properties of solids, including lattice mechanics, band theory, electrical, thermal, magnetic, and defect properties. Prereq: Matleng 402(P)

702 Advanced Engineering Thermodynamics. 3 cr. G. Laws of thermodynamics, property relations, and equations of state, introduction to statistical and irreversible thermodynamics; applications to perfect gases, perfect crystals, and homogeneous solutions. Prereq: grad st; MatlEng 441(P), 442(P)

710 Advanced Mechanical Behavior of Materials. 3 cr. G. Advanced topics on the mechanical properties of materials including plasticity, anelasticity, fracture, creep, fatigue, and the effects of temperature, rates, and processing history. Prereq: grad st; MatlEng 410(P)

720 Kinetic Processes in Materials. 3 cr. G. Absolute reaction rate theory, defects in materials, diffusion, phase transformation in metals. Prereq: grad st; MatlEng 441(P)

731 Deformation Processing. 3 cr. G. Application of engineering principles to shape generation by deformation processing. Analysis of forging, stamping, drawing. Effect of deformation material properties and behavior. Prereq: grad st; MatlEng 410(P)

732 Solidification Processing. 3 cr. G. Solidification phenomena and its engineering application to metals, semiconductors, ceramics, properties of cast products. Foundry processes. Prereq: grad st; Matleng 330(P)

750 Thin Solid Films. 3 cr. G. Application of materials science to thin films. Nucleation, growth, and characterization. Discussion of optical, electrical, and mechanical behavior in terms of atomic order and chemistry. Consideration of specific deposition methods and applications. Prereq: grad st; MatlEng 201(P) & Physics 210(P)

760 Surface Analysis of Solids. 3 cr. G. Introduction to thermodynamics, structure and quantum theory of surfaces. Fundamentals of spectroscopic methods for analysis of surfaces. Applications to practical surface analysis problems: catalysis, thin films, polymers, ceramics, metallurgy and corrosion, coatings, glasses and composites. Prereq: grad st or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee assessed for 1 cr. Prereq: grad st

890 Advanced Topics in Materials. (Subtitled). 3 cr. G. Lectures on special topics in materials engineering and science. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

995 Masters Design Project. 1-9 cr. G. - Prereq: grad st; cons instr

997 Doctoral Internship. 1-12 cr. G. - Prereq: grad st; cons instr

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st; cons instr & grad prog committee

Mechanical Engineering (MECHENG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

415 Modern Thermomanufacturing Processes. 3 cr. U/G. An introduction to thermal management and techniques applied to chemical vapor deposition, welding, thermal spraying, and machining (cutting and grinding). Prereq: jr st; Civ Eng 303(P), Mecheng 321(P) or equiv, or cons instr

423 Applied Fluid Mechanics. 3 cr. U/G. Principles of fluid mechanics as applied to elements of fluid machinery, power transmission devices and control systems. Prereq: jr st; MechEng 320 (P)

432 Internal Combustion Engines. 3 cr. U/G. Thermodynamic principles of internal combustion engines; cycles, combustion, engine operation; carburation, ignition, performance analysis; engine balancing; super charging. Prereq: jr st; MechEng 301 (P)

434 Air Conditioning System Design. 3 cr. U/G. The design of systems for heating and cooling spaces. Selection and design of central heating, cooling and energy distribution systems. Prereq: jr st; MechEng 321(P), Ind Eng 210(P)

435 Power Plant Theory and Design. 3 cr. U/G. Application of engineering principles to design and analysis of power-production systems. Fossil fuel, nuclear, and gas-turbine power plants. Alternative power generation. Environmental aspects. Prereq: jr st; MechEng 301(P)

436 Solar Engineering. 3 cr. U/G. Estimation of energy needs for solar heating and cooling systems for buildings; insolation; solar collector/energy storage design; applications to space heating/cooling, water heating. Prereq: jr st; MechEng 301 (P)

451 Applied Optics in Engineering. 3 cr. U/G. Principles of geometric and physical optics. Introduction to lasers. Topics from current engineering uses of optics, including measurement systems and laser machining. Prereq: sr st; Physics 210(P) or cons instr

455 Processing of Plastics. 3 cr. U/G. Description of plastics as polymers and polymer composites. Study of various technologies to manufacture plastics. Analytical description of flow and heat transfer in polymers. Prereq: MechEng 320(P) & 321(P)

461 Intermediate Kinematics and Dynamics. 3 cr. U/G. Analysis and synthesis of planar spacial mechanisms, using computational and analytical methods. Dynamics of machinery. Introduction to computer-aided design. Prereq: jr st; MechEng 360(P)

462 (562) Intermediate Design of Machinery. 3 cr. U/G. Consideration of complicated loadings and combined stresses. Design against fatigue. Design and analysis of machine systems. Consideration of special topics in machine element design. Prereq: jr st; MechEng 365(P)

463 Introduction to Finite Elements. 3 cr. U/G. Generation and assembly of finite element matrices in one and two-dimensional problems. Modeling and practical applications in solid mechanics, heat transfer and fluid flow. Not open to students with cr in Civ Eng 463(ER). Prereq: ElecEng 234(P), Civ Eng 303(P); MechEng 320(C), 311(C) or 321(C)

465 Friction and Wear. 3 cr. U/G. Friction and wear of engineering materials. Effect of environment, surface interactions, lubrication, and material properties. Techniques of analysis and measurement. Not open to students who have cr in MatlEng 465, which is identical to MechEng 465. Prereq: jr st; MatlEng 201(P)

469 Introduction to Biomechanical Engineering. 3 cr. U/G. Mathematical modeling of human body; dynamics of human motion; neuromuscular control human movement; stress analysis of bones and joints; concurrent mechanical problems in medicine. Prereq: sr st; Civ Eng 202(P) or cons instr

474 Introduction to Control Systems. 4 cr. U/G. Modeling of continuous systems; stability considerations, analysis and design of feedback control systems in time and frequency domains. Prereq: sr st; ElecEng 234(P), 301(P); Civ Eng 202(P)

475 Vibrations in Mechanical Design. 3 cr. U/G. Integrated treatment of mathematical modeling and analysis of mechanical systems, analysis of vibrations and performance under different loading conditions. Prereq: sr st; Civ Eng 202(P), ElecEng 234(P)

476 Introduction to Robotics. 3 cr. U/G. Fundamentals of manipulators, sensors, actuators, end-effectors and product design for automation, computer vision and pattern recognition. Prereq: ElecEng 234(P), MechEng 360(P)

477 Introduction to Automobile Dynamics. 3 cr. U/G. Study of motion of automobiles; understanding of safety-enhancing mechatronic systems, such as ABS, traction control and stability control systems; transmission and suspension design. Prereq: jr st or cons instr; ElecEng 234(P); MechEng 360(P)

478 Intermediate Control Systems. 3 cr. U/G. State space and frequency domain methods of modeling, analysis and design of multivariate control systems with emphasis on mechanical systems applications and case studies. Prereq: sr st; Mecheng 474(P)

479 Control and Design of Mechatronic Systems. 3 cr. U/G. Understanding interfacing of mechanical systems using electro-mechanical components; conceptual design and analysis of high performance computer controlled mechanical systems; prototyping of mechatronic systems. Prereq: sr st or cons instr; ElecEng 402(P) or MechEng 474(P)

490 (effective 01/24/2005) Topics in Mechanical Engineering: (Subtitled). 1-3 cr. U/G. Recent theoretical and applied topics in mechanical engineering. May be retaken with change in topic to max of 9 cr. Prereq: jr st & cons instr

490 Topics in Mechanical Engineering: (Subtitled). 1-3 cr. U/G. Recent theoretical and applied topics in mechanical engineering. May be retaken with change in topic to max of 9 cr. Prereq: jr st & cons instr

574 (478) (effective 01/24/2005) Intermediate Control Systems. 3 cr. U/G. State space; frequency domain methods of modeling, analysis and design of control systems; digital control; and multivariate systems. ElecEng 574(503) & MechEng 574(478) are jointly offered & count as repeats of each other. Not open for cr to students who have cr in ElecEng 503(ER) or MechEng 503(ER). Prereq: sr st; Mecheng 474(P) or ElecEng 474(402)(P); or grad st

580 Engineering Analysis in Applied Mechanics I. 3 cr. U/G. Engineering analysis of initial and boundary value problems in applied mechanics. Application of various methods to investigate a variety of engineering situations. Not open to students with cr in Civ Eng 580, which is identical to MechEng 580. Prereq: jr st & ElecEng 234(P)

699 Independent Study. 1-3 cr. U/G. - Limited to max of 6 cr applied toward undergrad degree. Prereq: jr st; cons instr

701 (effective 01/24/2005) Advanced Linear System Analysis. 3 cr. G. Theory and analysis of linear dynamic systems; discrete and continuous state models; linear algebra for dynamic systems; state transition matrix, numerical methods; and applications. ElecEng 701 & MechEng 701 are jointly offered and count as repeats of one another. Prereq: grad st

702 Advanced Engineering Thermodynamics. 3 cr. G. Laws of thermodynamics, property relations, equations of state; introduction to statistical and irreversible thermodynamics; applications to perfect gases, perfect crystals, and homogeneous solutions. Prereq: grad st; Mecheng 301(P) & 321(P) or equiv

703 Principles of Combustion. 3 cr. G. Chemical kinetics and thermodynamics, conservation equations for multicomponent reacting systems, detonation, premix, diffusion and turbulent flames. Prereq: grad st; MechEng 302(P) & 321(P) or equiv

707 Transport in Porous Media. 3 cr. G. Introduction to fluid mechanics in porous media, single- and multi-phase flows, volume averaged transport equations, convection heat transfer, consolidating porous media, volume averaging theory, applications. Prereq: grad st

710 Advanced Transport Processes. 2 cr. G. Vector and tensor analysis of practical engineering problems; basic laws of mass, momentum and energy transport; transport phenomena in porous media reacting and non-reaction media. Prereq: MechEng 321(P) or equiv

711 Thermal Radiation and Conduction. 3 cr. G. Radiative properties of and radiative transfer in absorbing, emitting and scattering media; transient and steady state heat conduction; multi-mode heat transfer applications. Prereq: grad st; MechEng 311(P) or 321(P)

712 Convection Heat and Mass Transfer. 3 cr. G. Conservation equations; laminar developed and developing flows; laminar boundary layers; high speed flows; turbulent flow and heat transfer; natural convection; mass transfer; special engineering applications. Prereq: grad st; MechEng 311(P) or 321(P)

714 Energy Transport in Microscale Systems. 3 cr. G. Introducing thermophysics of microscale systems including statistical, non-equilibrium thermodynamics, particle transport theory, energy carriers in different materials and phases, and applications including mems and nanotechnology. Prereq: grad st; Mecheng 320(P) & 321(P)

715 Numerical Methods in Engineering. 3 cr. G. Differential equation solutions with finite difference and finite volume methods; grid generation technique; finite element methods; applications to solid mechanics, heat transfer, and fluid mechanics. Prereq: grad st; Math 413(P) or cons instr

716 Two-Phase Flow. 3 cr. G. Dispersed and separated two-phase flow field and constitutive equations; interfacial phenomena. Two-fluid and drift-flux models, similarity criteria, pressure drop, nucleation and forced convection boiling, flow dynamics and applications. Prereq: grad st; MechEng 320(P)

717 Advanced Turbulent Flow. 3 cr. G. Zero-,one-, and two-equation models of turbulence; reynolds-stress model and application to hydrodynamics/heat transfer problems in boundry-layers, free shear flows and recirculating flows. Numerical analysis. Prereq: grad st; MechEng 320(P)

718 (778) (effective 01/24/2005) Nonlinear Control Systems. 3 cr. G. Advanced concepts and methodologies in modeling and design of nonlinear control systems. Lyapunov theory; describing functions; variable structure control. ElecEng 718 & MechEng718 are jointly offered and count as repeats of one another. Not open for credit to students w/ cr in MechEng 778. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

721 Fundamentals of Fluid Flow. 3 cr. G. Inviscid, viscous and compressible flow; potential flow in aerodynamics; analytical solutions of navier-stokes equation; laminar and turbulent boundary layers, jets, wakes, and separating flows; applications. Prereq: grad st; Mecheng 320(P)

722 Advanced Fluid Mechanics. 3 cr. G. Formulations of navier-stokes and energy equations; turbulence models; solutions to wall, free shear layer, and recirculating flows; turbulence energy spectrum; applications to industrial problems. Prereq: grad st; MechEng 320(P)

723 Computational Fluid Dynamics and Heat Transfer. 3 cr. G. Finite difference methods for solving boundary layer equations, navier-stokes equations, etc. Lami-

nar and turbulent flows. Prereq: grad st; cons instr

725 Fluid Power and Turbomachinery. 2 cr. G. Concept of hydraulic systems; hydraulic motors; valves; hydraulic circuits; pneumatic systems; axial and radial gas turbines, pumps, compressors; steam turbines; hydraulic turbines; wind turbines. Prereq: grad st; MechEng 320(P)

726 Mechanical Vibrations. 3 cr. G. Free and forced vibrations of multiple degree of freedom systems using modern matrix methods. Not open to students who have cr in Civ Eng 726 which is identical to Mecheng 726. Prereq: grad st; Mecheng 475(R) or equiv

760 Dynamic Problems in Design. 3 cr. G. Analytical methods for solution of typical vibrating and balancing problems encountered in mechanical systems. Special emphasis on methods of suppression and control. Prereq: grad st; MechEng 360(P)

761 Advanced Kinematics. 3 cr. G. Kinematics of rigid body motion, including finite and instantaneous coupled linear and rotational motions. Kinematic analysis and synthesis of spatial mechanisms and open loop chains. Prereq: grad st; Mecheng 360(P)

762 Mechanical Systems Analysis. 3 cr. G. An integrated treatment of mathematical modeling and analysis of mechanical systems. Modeling of machine elements and systems; performance under transient, periodic and random loads. Prereq: grad st; MechEng 365(P)

765 Mechanical Reliability and Probabilistic Design. 3 cr. G. Advanced design theory and methodology incorporating probabilistic and statistical concepts. Design of mechanical and structural members for specific reliability and confidence level. Case histories and applications. Prereq: grad st; MechEng 360(P) & 365(P); or cons instr

773 Advanced Dynamics. 3 cr. G. General theory of dynamic behavior from the viewpoint of Lagrangian and Hamiltonian mechanics. Application of energy principles to dynamical analysis of mechanical systems. Not open to students who have cr in Civ Eng 773, which is identical. Prereq: grad st; MechEng 580(P) or Civ Eng 580(P); or cons instr

776 Kinematics, Dynamics and Control of Industrial Robots. 3 cr. G. Indepth study of kinematics, trajectories, dynamics and control of robots. Prereq: grad st; MechEng 360(P) & 474(P) or equiv

778 Advanced Control Systems. 3 cr. G. Advanced concepts and methodologies in modeling and design of control systems. Applications emphasize mechanical, thermal, and process control systems. Prereq: grad st; Mecheng 474(P) or equiv

785 Optimization Methods in Engineering. 3 cr. G. Optimization as engineering design tool; nonlinear programming; computational techniques for unconstrained and constrained problems; conjugate gradient, sumt, reduced gradient, feasible directions methods; design applications. Not open to students who have cr in Ind Eng 785 which is identical to MechEng 785. Prereq: grad st; ElecEng 234(P), CompSci 151(P) or equiv

816 (effective 01/24/2005) Optimal Control Theory. 3 cr. G. Analysis and synthesis of discrete and continuous optimal control systems; linear quadratic regulators; dynamic programming and variational methods; applications. ElecEng 816 & MechEng 816 are jointly offered and count as repeats of one another. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

819 (effective 01/24/2005) Adaptive Control Theory. 3 cr. G. Adaptive control systems including mathematical foundations, estimation, model reference adaptive control, self tuning regulators, numerical methods, applications. ElecEng 819 & MechEng 819 are jointly offered and count as repeats of one another. Prereq: grad st; ElecEng or MechEng474(P) or equiv; ElecEng or MechEng 701(P); or cons instr.

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Advanced Topics in Mechanical Engineering: (Subtitled). 1-3 cr. G. Recent theoretical and applied developments in mechanical engineering. Topics selected from areas in thermal-fluid engineering, machine design and controls, and chemical process engineering. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

990 Masters Thesis. 1-9 cr. G. - Prereq: grad st; cons instr

995 Masters Design Project. 1-9 cr. G. - Prereq: grad st; cons instr

997 Doctoral Internship. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

998 Doctoral Thesis. 1-12 cr. G. - Prereq: grad st; cons instr & grad prog comm

999 Advanced Independent Study. 1-3 cr. G. - Prereq: grad st; cons instr & grad prog committee

ENGLISH

College of Letters and Science

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The Department of English offers master's and doctoral degrees in several areas of specialization: Literary Studies, Rhetoric and Composition, Professional Writing, Creative Writing, Adult TESOL and Linguistics, and Modern Studies. Students apply for admission to a specific area or concentration, but are encouraged to take classes in others. The Department also offers graduate certificates in International Technical Communication and Adult/University Level TESOL.

MA/MLIS Coordinated Degree Program

In cooperation with the School of Library and Information Science, the Department of English offers a MA/MLIS program to prepare students for positions as humanities librarians. Students enrolled in this program concurrently pursue a MA degree in English and a MLIS degree. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree.

Students interested in the MA(English)/MLIS program are expected to follow all the requirements and standards as described in this section of the Bulletin with the following exceptions: the 21 credits required for the MA in English in the coordinated degree program are to be taken within the Department. Courses in related areas must be approved by the Coordinator of Graduate Studies in English. For more information on this program, see the Library and Information Science section of this Bulletin.

Graduate Faculty

DISTINGUISHED PROFESSOR

Gallop, Jane, Ph.D., Cornell University

PROFESSORS

Alred, Gerald, M.A., University of Dayton
Bullock, Marcus, Ph.D., University of Oregon
Eckman, Fred, Ph.D., Indiana University
Gendron, Bernard, Ph.D., University of Notre Dame
Hazard, James A., M.A., University of Connecticut
Horner, Bruce M., Ph.D., University of Pittsburgh
Iverson, Gregory K., Ph.D., University of Minnesota
Jay, Gregory S., Ph.D., State University of New York-Buffalo
Liddy, James, M.A., University College Dublin, National University of Ireland
Lanters, Josepha, Ph.D., University of Leiden, the Netherlands
Lu, Min-Zhan, Ph.D., University of Pittsburgh
Moravcsik, Edith, Ph.D., Indiana University
Nardin, Jane B., Ph.D., State University of New York-Buffalo
Noonan, Michael, Ph.D., University of California-Los Angeles
Petro, Patrice, Ph.D., University of Iowa
Roberts, Sheila, D.Litt., University of Pretoria
Sangari, KumKum, Ph.D., University of Leeds, United Kingdom
Sappenfield, James A., Ph.D., Stanford University
Schuster, Charles, I., Ph.D., University of Iowa

ASSOCIATE PROFESSORS

Amsler, Mark, Ph.D., The Ohio State University
Blaeser, Kimberly, Ph.D., University of Notre Dame
Buley-Meissner, Mary Louise, Ph.D., University of Washington
Callahan, Vicki, Ph.D., University of California - Los Angeles
Clark, George M., Ph.D., Florida State University
Davis, Garry W., Ph.D., University of Michigan
Downing, Pamela, Ph.D., University of California-Berkeley
Gillam, Alice, Ph.D., Ball State University, Chair
Grayson, Sandra, Ph.D., University of California - Riverside
Hamilton, Kristie, Ph.D., University of Texas-Austin
Kennedy, Gwynne, Ph.D., University of Pennsylvania, Coordinator of Graduate Studies
Martin, Andrew, Ph.D., University of Iowa
Netzloff, Mark, Ph.D., University of Delaware
Samuels, Lisa, Ph.D., University of Virginia
Spilka, Rachel, Ph.D., Carnegie Mellon University
Tatham, Campbell, Ph.D.,University of Wisconsin-Madison
Van Pelt, William, Ph.D., University of California-Santa Cruz
Wilson, Michael, Ph.D., Cornell University

ASSISTANT PROFESSORS

Banerjee, Sukanya, Ph.D, University of California-Riverside
Blasini, Gilberto, Ph.D, University of California-Los Angeles
Clark, David P., Ph.D., Iowa State University
Kincaid, Andrew, Ph.D., University of Minnesota
Mayes, Patricia, Ph.D. University of California-Santa Barbara
McKenzie, Jon, Ph.D., New York University
Oren, Tasha, Ph.D., University of Wisconsin Madison
Sands, Peter, Ph.D., State University of New York-Binghamton
Smart, Graham, Ph.D., McGill University

Master of Arts in English

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate major in English or related field, with appropriate background for proposed concentration of study: Plan A, broad background in English and American literature; Plan B, literature, linguistics, and/or composition; Plan C, literature and creative writing; Plan D, English language and linguistics; Plan E, modern studies; Plan G, professional writing.
- Undergraduate grade point average of 3.0 (4.0 scale).
- Submission of scores on the Graduate Record Examination General Test.

- Three letters of recommendation to the Department's Coordinator of Graduate Studies from persons familiar with applicant's academic ability and achievement.
- A sample of expository prose.
- For Plan C admission, an applicant must also submit samples of original fiction or poetry.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. Applicants should contact the Graduate Program Office for additional information and deadlines.

Major Professor as Advisor
The student must have a Major Professor to advise and supervise the student's work as specified in Graduate School regulations. The coordinator of the student's concentration serves as an initial advisor.

Credits and Courses
Students admitted to the master's program earn the degree by completing a minimum of 24 credits of graduate coursework in English, writing a final project, and passing an oral examination at the conclusion of their coursework.

Although students must enroll initially in one of the five plans of study described below, students who demonstrate a capacity for doctoral work, and wish to earn a PhD at UWM, are advised to proceed as rapidly as possible to doctoral status. Ordinarily students are not allowed to proceed beyond 30 credits without having been admitted to the doctoral program. No more than 27 credits earned at the master's level may be included in the 54 credits required for the PhD.

Plan A (Literary Studies)

A minimum of 24 credits, including:

- 12 credits in literature courses at the 600-700 level, with at least 6 credits at the 700 level
- 6 credits in theories and methods courses at the 700 or 800 level
- 3 credits in a literature seminar (800 level)
- 3 credits electives
- A final project, which shall be a paper of at least 30 pages which grows out of and significantly expands some aspect of the student's literary studies.
- An oral examination, usually lasting an hour and a half, which covers the final project and a separate 30-book reading list.

Plan B (Rhetoric and Composition)

A minimum of 24 credits, including:

- 9 credits in 700-level courses (3 credits in rhetoric, and 6 credits in literature or language).
- 3 credit seminar in Rhetoric and Composition.
- 6 credits in Rhetoric and Composition.
- 6 credits electives.
- A final project, which shall be a research paper appropriate to the student's professional goals.
- An oral examination, usually lasting an hour and a half, which covers the final project and a reading list of at least 30 texts not listed in the project bibliography or works cited list.

  *Note: Students who take these courses and plan to apply to the Ph.D. program are advised to take 6 credits in literature or language.

Plan C (Creative Writing)

A minimum of 24 credits, including:

- 6 credits in 600- or 700-level literature courses (at least 3 credits at the 700 level).
- 6 credits in either 715/815 or 716/816
- 6 credits in writing courses at the 600 or 700 level.
- 6 credits electives.
- No more than 12 credits may be earned in 600-level courses.
- A final project, which shall be a collection of fiction and/or poetry, a novel, a dramatic script, or other substantial work of imaginative writing.
- An oral examination, usually lasting an hour and a half, which covers the final project and a reading list of at least 30 texts representative of the student's literary background and interests.

Plan D (English Language and Linguistics)

Consult the Plan D Coordinator for all course selections.

A minimum of 24 credits, including:

- 3 credits [minimum] of 700-level courses
- 3 credit seminar in Linguistics (English 805 or 806)
- 18 credit electives distributed among 400- to 800-level courses in the fields of syntax, phonology, discourse analysis, sociolinguistics, second language acquisition/ESL, rhetoric/composition, and/or language education.
- A written examination.
- A final project. The project shall, with one exception, be a research paper on a topic in language chosen in consultation with the student's advisor. The exception is that if a student specializes in Teaching ESL to Adult Learners, the project may be some other type of documentation than a research paper. For example, the

project might be a video, or a set of lesson plans, or other product of extensive investigation of some aspect of teaching ESL that the student carried out as part of the internship in teaching ESL.

- An oral examination, usually lasting an hour and a half, on the final project.

Plan E (Modern Studies)

A minimum of 24 credits including:

- 3 credits of English 740 or 741 (Backgrounds of Modernism)
- 3 credits in 700- or 800-level courses in literature since 1800, that cover a variety of authors and a substantial historical period
- 3 credits in 700- or 800-level courses that focus on theories or methods in the analysis of literature, culture, criticism, or the arts
- 3 credits 800-level seminar in Modern Studies
- 12 credits electives
- A final project, which shall be a paper of at least 30 pages which grows out of and significantly expands some aspect of the student's study of modern culture.
- An oral examination, usually lasting an hour and a half, which covers the final project and a separate 30-book reading list.

Plan G (Professional Writing)

A minimum of 24 credits, selected in consultation with the student's advisor, including:

Core Courses in Theory and Research, 6 cr

712 Professional Writing Theory
713 Qualitative Research OR 714 Usability Studies

Professional Writing Practice or Pedagogy, 3 cr

(Students may take a 700 level or a 400 level U/G course.)

800-Level Seminar in Professional Writing, 3 cr

855 Seminar in Theories of Business and Technical Writing recommended

Graduate Credit in Related Interdisciplinary Areas, 6 cr

Areas such as linguistics, rhetoric, creative writing, translation, psychology, and computer science are appropriate.

One of the following:

- For students with little workplace experience:
  English 449 Writing Internship in English or another approved internship program

- For students with substantial workplace experience:
  700-level research methods course

Electives, 3 cr

Final Project
A research paper or other project appropriate to the student's professional goals.

Oral Examination
Usually lasting an hour and a half, the oral exam covers the final project and a reading list of at least 30 texts not listed in the project bibliography or works cited list.

Regulations concerning final projects and oral examinations

1. Students should consult with their advisors before completing 24 credits to determine a final project. Ordinarily, it is a revised and expanded course or seminar paper of at least 30 pages. The project should demonstrate the student's skills in research, critical analysis, argumentation, and prose style. For students in Plan C (Creative Writing), the project is a substantial portfolio, the exact character of which is determined in consultation with the student's Master of Arts Committee. For students in Plan D (English Language and Linguistics) specializing in Teaching ESL to Adult Learners, the project will consist of some documentation (a paper, a videotape, a set of lesson plans, etc.) of the outcome of the pedagogical investigation undertaken during the student's internship. The project serves both as a concluding effort at the master's level and also as an indication of a student's potential for doctoral study.
2. In consultation with the student, the graduate coordinator appoints an M.A. Examining Committee. At least two of the three members must be English Graduate Faculty. The M.A. Examining Committee administers the final Oral Examination, covering the project and a separate reading list of at least 30 texts, to be selected by the student and approved by the Committee.
3. The project must be submitted and the oral examination completed within one year after the completion of 24 credits. Students should remember that a maximum of 27 credits at the master's level is applicable to the PhD 54 credit requirement.
4. The Examining Committee offers a recommendation regarding the student's qualifications for further graduate study at the doctoral level. The Committee Chair puts this recommendation in writing and places it in the student's academic file.
5. Students who fail the oral examination may be required to revise their final project, retake the examination, or both. The oral examination may be retaken only once. No additional credits may be earned for the revision of the project after a failed examination. For further information regarding the M.A. project and examination, see the English Graduate Program Handbook.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in English

Admission
Students in the UWM Master of Arts degree program in English may apply to the

Department of English Graduate Policy Committee for admission to one of the six doctoral concentrations. Admission must be recommended by three members of the Graduate Faculty.

An application for admission also must be submitted to the Graduate School. Admission to the Creative Writing doctoral concentration must be approved by the Creative Writing Advisory Committee before Graduate Policy Committee consideration.

Applicants with master's degrees from other institutions are evaluated on the basis of standard application materials: GPA, GRE scores, statement of purpose, three supporting letters, and a sample of expository prose. Such applicants are admitted to doctoral study provisionally and are required to complete an Academic Review within six weeks of finishing 12 credits.

The Academic Review is a one- to two-hour meeting with three faculty members of the English Graduate Faculty. At least two members come from the student's concentration. The Review covers the student's academic progress in doctoral coursework, two unrevised course papers, and a list of 20-25 books chosen by the student in consultation with the reviewers. See the English Graduate Program Handbook for further details regarding the Academic Review. Applicants should contact the Graduate Program Office for additional information and deadlines.

Credits and Courses
The Ph.D. program requires 54 credits beyond the B.A., including no more than 27 credits earned at the master's level. Course distribution requirements vary according to the doctoral concentration a student enters.

Doctoral Concentration
Students applying to the English doctoral program must indicate their preference for one of the following doctoral concentrations: Literary Studies; Rhetoric and Composition; Creative Writing; Linguistics; Modern Studies; Professional Writing. The Coordinator of Graduate Studies and a Program Coordinator for each concentration provide initial advising for the student in course enrollment and in selecting a Major Professor for long-term advising. Although a continuing doctoral student can change concentrations, such changes require approval by the Coordinator of the new concentration and the Coordinator of Graduate Studies, and may require a substantial amount of additional coursework.

Because course requirements change frequently, students should regularly consult with Program Coordinators or the Coordinator of Graduate Studies regarding doctoral concentration requirements. The following listings reflect current curricular requirements:

Literary Studies

- 9 credits in literature courses at the 700 level
- 9 credits in theory and methods courses at the 700 or 800 level
- 12 credits in literature seminars (800 level) with at least 3 credits in pre-1800 and 3 credits in post-1800 seminars
- 24 credits electives

With the approval of the Graduate Coordinator, some 700-level requirements may be met with work from previous institutions.

Rhetoric and Composition

- 15 credits in 700-level rhetoric and composition courses.
- 15 credits in 800-level seminars, 12 of which should be in rhetoric and composition.
- 24 credits electives

Creative Writing

- 6 credits in 715/815 and/or 716/816
- 24 credits in 700- or 800-level literature courses
- 12 credits in creative writing 700-level or above courses
- 12 credits electives

Linguistics

- 12 credits in basic linguistics courses
- 9 credits in 700-level linguistics courses
- 12 credits in 800-level linguistics seminars (English 805 or 806)
- 21 credits electives

Modern Studies

- 24 credits in modern studies courses, including:
  - 9 credits in Backgrounds of Modernism, Literature, and Theories or Methods, as described in M.A. requirements
  - 12 credits in 800-level modern studies seminars; and
  - 3 one-credit sections of 820 (Center for Twentieth Century Studies Colloquium course)
- 30 credits electives

Professional Writing

- 9 credits in required core courses in theory, research, and teaching

  706 Professional Writing Theory and Pedagogy
  712 Professional Writing Theory
  713 Qualitative Research

- 21 credits in professional writing courses

  6 credits in English 700-level or 400-level U/G courses
  15 credits in English 800-level courses
  (with the advisor's approval, a student may take credits in related areas).

- 24 credits electives

General Restrictions
Doctoral students may not accumulate more than 12 credits in U/G courses and not more than 6 credits in independent study without the approval of the Coordinator of Graduate Studies. No more than 18 credits may be taken in courses outside the Department. Note: for doctoral students in the Linguistics concentration, the maximums are 24 credits in U/G courses, 6 credits of independent study, and 27 credits outside the Department.

Advising
Students are required to consult periodically with their Major Professor. The Major Professor helps the student to define an area of special interest within the concentration for the preliminary examination. The Major Professor also assists the student in the selection of appropriate coursework and may chair the Preliminary Examination Committee.

Foreign Language Requirement
All Ph.D. candidates are required to demonstrate proficiency (reading knowledge) in a foreign language. The choice of a language must be approved by the student's advisor. If a student has not met this requirement in other ways (see English Graduate Program Handbook), a student must pass a two-hour written examination in the translation of a piece of literature or criticism. A student may use a dictionary and/or grammar book. The exam must be arranged in advance with the Coordinator of Graduate Studies and must be taken before the preliminary examination. If a student's Major Professor considers proficiency in more than one language necessary to the student's specific plan of study, exams in more than one language may be required. The exam may be retaken until proficiency is attained.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examination
The doctoral preliminary examination consists of a written examination and an oral examination designed to demonstrate the breadth of a student's knowledge and the ability to conduct advanced research in one or more areas of study. The written and oral examinations draw from field bibliographies with rationale (500 word maximum) prepared by the student and approved by the student's preliminary examination committee and the advisory committee of the student's plan. The written examination must be at least eight hours long, and it is frequently taken as a two-day, take-home, open book exam. It may be taken at the University or at home, if the committee agrees on the location. An oral exam of two hours covering issues raised during the written exam and/or focusing on the proposed dissertation must follow the written exam within 7-10 days.

Students take the preliminary exam after completing all doctoral course work or with no more than three credits of doctoral course work remaining. Students cannot take the exam if they have any incomplete or unreported grades or a GPA less than 3.0. The exam must be finished within one semester after all course work is completed, excluding summer session. Students may receive a one semester extension for additional course work from the Coordinator of Graduate Studies. Students who fail the preliminary examination may not proceed to the dissertation. The exam may be retaken only once. See the English Graduate Program Handbook or the Coordinator of Graduate Studies for specific guidelines for governing the preliminary examination process. Students enrolled in the doctoral program as of September 2000 should consult the Coordinator of Graduate Studies as to their options under these rules or the previous preliminary examination rules.

Dissertation
The dissertation topic, together with a brief prospectus, must be approved by the Graduate Policy Committee. The student's major professor or a member of the dissertation committee must present the topic and prospectus to the Graduate Policy Committee. See the Coordinator of Graduate Studies and the English Graduate Program Handbook for specific guidelines for selecting a doctoral committee and preparing the dissertation proposal. The Department considers 200 pages a reasonable length for the dissertation.

Dissertation Defense
The completed dissertation is subject to an oral defense, to be arranged by the Coordinator according to Graduate School regulations. A copy of the dissertation is kept in the Department office.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the PhD chapter of the *Graduate Student and Faculty Handbook*.

Adult/University-Level TESOL Graduate Certificate Program

The Adult/University-Level TESOL Graduate Certificate Program is designed to meet the needs of graduate non-degree students or graduate students concurrently enrolled in a UWM master's or Ph.D. program who wish to teach English as a Second Language (ESL) to adults or university-level students abroad. Requirements for this program are very similar to those for the "Adult/University-Level TESOL Certificate Program," which accepts undergraduate students and post-baccalaureate special students, but training in the graduate certificate program is more rigorous, and up to 12 of the 21 credits earned can be applied (concurrently or subsequently) to the English Department's M.A. program in English Language and Linguistics (Plan D).

Admission
Students who wish to apply to the program should submit the following materials to the TESOL Certificate Program Coordinator in the Department of English:

- Adult/University-Level TESOL Graduate Certificate Program application form (available from the English Department Graduate Studies office).
- Transcripts of all college-level academic work, with evidence of a GPA of 2.75 or better.
- A statement of purpose.
- Two letters of recommendation from persons knowledgeable about the applicant's recent academic and/or work experience.
- Applicants who are not native speakers of English should also submit scores of least 550 on the TOEFL or 6.5 on the IELTS exam, and 45 on the TSE.

Credits and Courses
Students are required to complete the six courses (18 credits) plus teaching internship (3 credits) outlined below.

Fondation Courses, 6 credits:
English/Linguis 400 (Introduction to English Linguistics) or Linguis 350 (Introduction to Linguistics)
English 403 (Survey of Modern English Grammar)

Required Certificate Courses, 12 credits:
English 404 (Language, Power, and Identity)
Linguistics 420 (Introduction to Second Language Acquisition) or English 402 (Theories of Language and Literature: Second Language Acquisition)
English 565/Linguistics 565(426) (Introduction to Adult/University-Level TESOL)
English 567 (Materials for ESL Instruction)

Teaching Internship, 3 credits:
English 569 (Internship in Teaching ESL to Adult Learners)

The Foundation Courses may be taken for either graduate or undergraduate credit. If taken at the graduate level, they will count toward the Certificate GPA. All remaining courses must be taken for graduate credit. NB: Students are not allowed to enroll for both U and G courses in a single semester, so Foundation Courses taken in the same semester as Required Certificate Courses must be taken at the G level.

Students who previously have taken any of the required courses at the graduate level while enrolled in other programs at UWM may transfer the credits earned into the certificate program, so long as the courses have been taken within the last five years. Students who have taken comparable courses at other institutions may be allowed to transfer in up to 6 credits of course work, upon approval by the certificate program coordinator. Students who have completed any of the required courses for undergraduate credit must substitute courses at the graduate level, selected in consultation with the certificate program coordinator.

The teaching internship is completed at one of the internship institutions affiliated with the Certificate Program. The site of the internship may be chosen by the student, but must be approved by the Certificate Program staff. The student is expected to complete between 40 and 60 hours of supervised teaching over a period of four to eight weeks.

Students receive the certificate upon completion of all the required coursework and the teaching internship with a GPA of 3.0 or better.

There is a time limit of three years from initial enrollment for completion of the certificate.

Intensive Option
Students who wish to complete the certificate program as quickly as possible should discuss with the program coordinator the possibility of enrolling for the "intensive" option. Under this option, students are able to complete the program in eight to ten months by enrolling in the required courses as follows:

- Last 4- or 6-week summer session: English/Linguis 400 or Linguis 350.
- Fall Semester: English 403, English 404, Linguistics 420, English 565 or Linguistics 565 (426), and English 567.
- First Mini-Session of Spring Semester: English 569 (Teaching Internship).

Graduate Certificate Program in International Technical Communication

The Graduate Certificate Program in International Technical Communication is designed for students who wish to pursue technical communication careers developing information for international audiences and organizations.

Admission
Students applying from universities outside the United States must have completed a U.S. bachelor's degree equivalent and must meet the following requirements:

- Earn a minimum score of 250 on the computer-based (or 600 on the paper-based) TOEFL or 7.0 on the IELTS exam or secure the consent of the Program Coordinator and two program faculty members.
- Submit a portfolio of writing samples in English as well as a "Statement of Purpose" in both English and the student's native language.
- Demonstrate knowledge of computers and business operations through undergraduate courses such as business or technical communication, the portfolio, or experience as described in the Statement of Purpose.
- Submit three letters of recommendation from persons knowledgeable about the applicant's recent academic and/or work experience.

Students applying from universities within the United States must have completed a bachelor's degree with a minimum 2.75 GPA and must meet the following requirements:

- Demonstrate a reading proficiency in a second language as demonstrated by a score of "Level 5" on the UW System Placement Test for French, German, or Spanish. Other languages will be considered depending on appropriateness and availability of testing.
- Submit a portfolio of writing samples as well as a "Statement of Purpose" in English.
- Demonstrate knowledge of computers and business operations through undergraduate courses such as business or technical communication, the portfolio, or experience as described in the Statement of Purpose.
- Submit three letters of recommendation from persons knowledgeable about the applicant's recent academic and/or work experience.

Credits and Courses
Students must complete 18 credits of course work as outlined below. At least 6 of these credits must be completed at the 700 level or above. Students must earn a 3.0 grade point average or better in the courses that apply to the Certificate.

Professional/Technical Writing Courses, 9 credits.

In consultation with the Program Coordinator, students will select 9 credits from among the following courses:

- English 435 Professional and Technical Writing
- English 436 Writing for Information Technology
- English 437 Project Management for Professional Writers
- English 439 Document Design
- English 708 Advanced Professional Writing
- English 709 Rhetoric, Writing, and Information Technology
- English 710 Advanced Project Management for Professional Writers

Students who within the past five years have successfully completed any of these courses while enrolled as undergraduate students are not expected to repeat those courses for graduate credit. In consultation with the Program Coordinator, they will select alternate graduate courses that will substitute for the courses already completed.

Elective courses selected from areas other than English, 6 credits

Students, in consultation with the Program Coordinator, will take 6 credits selected from two of the following areas:

- School of Business Administration
- Communication Department
- Translation and Foreign Languages

Courses outside these areas may be substituted with permission of the Program Coordinator.

Capstone Requirement, 3 credits

Designed in consultation with the Program Coordinator, the capstone experience must engage international study.

Students who also are interested in an M.A. in English must apply for admission to both the Certificate and degree programs. Students who have completed the Certificate Program may transfer up to 12 credits to the M.A. program, upon approval of the English Department Coordinator of Graduate Studies and the Graduate School. Those concurrently enrolled in the Certificate Program and the MA in English are strongly encouraged to consult the Certificate Program Coordinator and the Plan G Coordinator to develop the most economical program of study. Students seeking admission to master's programs in other departments and schools are advised to seek the advice of graduate coordinators in those areas.

Time Limit
Students must complete all requirements for the Certificate within 4 years of initial enrollment.

Graduate Certificate in Professional Writing and Communication

The Graduate Certificate in Professional Writing and Communication is designed for students who wish to pursue professional careers in technical writing, communication, corporate training and instructional design, or user interface and Web-document design.

Admission
Students must have completed a bachelor's degree with a minimum GPA of 2.75 and must submit the following materials with their graduate school application:

- a portfolio of writing samples;
- two letters of recommendation from persons knowledgeable about applicants' recent academic or work experience;
- a statement of purpose that identifies the applicants' knowledge of workplace communication practices and business operations, their professional experience, or basic undergraduate coursework in business writing, technical writing, and communication; and
- a statement describing the applicants' access to and operational knowledge of online communication technology, including a PC or equivalent computer system with Internet access and other applications sufficient to participate in the program's online learning activities.

Applicants must declare their intent to pursue the Certificate program before completion of six credits in the Certificate sequence.

Credits and Courses
Students must complete 15 credits of course work as outlined below. The Certificate will be awarded when students achieve the following:

- complete 9 credits in required courses in English;
- complete 6 credits from a choice of courses in Communication; and
- earn a minimum cumulative GPA of 3.0 in the courses that apply to the Certificate.

With the consent of the Certificate Coordinator and subject to the Graduate School transfer policy, students who have completed appropriate courses for graduate credit at other institutions may transfer up to three credits into the Certificate Program, provided that the courses were completed within the last five years with a grade of B or better.

Required Courses in English, 9 credits. Students will take 9 credits selected from the following required English courses:

Advanced Professional Writing (English 708) or Professional Writing (436)
Rhetoric, Writing, and Information Technology (English 709) or Writing for Information Technology (English 436)
Advanced Project Management for Professional Writers (English 710) or Project Management for Professional Writers (English 437)

Students who within the past five years have successfully completed courses equivalent to these required English courses may, with the approval of the Certificate Coordinator, substitute alternate English graduate courses.

Required Courses in Communication, 6 credits. Students, in consultation with the Program Coordinator, will take 6 credits selected from the following Communication Courses:

Designing and Developing Communication Training Interventions (Commun 627)
Studies of Communication in Organizations (Commun 810)
Seminar in Mediated Communication (Commun 813)
Seminar in Small Group Communication (Commun 823)
Seminar in Programs of Adult Communication (Commun 827)

Students who intend to enroll in both the Certificate program and a graduate degree program must apply for admission to both the Certificate program and to the graduate degree program of their choice. With the approval of the graduate coordinator of the student's graduate program, up to six credits completed in the Certificate also may satisfy graduate program requirements.

Students not concurrently enrolled in a UWM graduate degree program later may transfer credits completed in the Certificate to a UWM graduate degree program, subject to Graduate School transfer policy and subject to the guidelines and approval of the graduate coordinator of the respective degree program.

Students seeking admission to the Certificate and to graduate degree programs are advised to seek the advice of graduate coordinators of each program.

Time Limit
A student must complete all requirements for the Certificate within 3 years of his/her initial enrollment.

Courses

English (ENGLISH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

301 Survey of English Literature, Beginnings to 1500. 3 cr. U/G. Writers and literary trends of the Old English and medieval period, with emphasis on their historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

302 Survey of English Literature, 1500-1660. 3 cr. U/G. Writers and trends of the English literature in the period 1500-1660, witrh emphasis on historical, social, and cultural context. Recom in prep for English 452, 453, 454 & 456. Prereq: jr st; satisfaction of GER English Composition competency req

303 Survey of English Literature, 1660-1798. 3 cr. U/G. Writers and trends in English Literature, 1660-1798, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

304 Survey of English Literature, 1798-1900. 3 cr. U/G. Writers and trends in English Literature, 1798-1900, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

305 Survey of English Literatur,:1900 to the Present. 3 cr. U/G. Writers and trends in English Literature, 1660-1798, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

306 Survey of Irish Literature. 3 cr. U/G. Irish literature from earliest times through the Literary Renaissance--folklore, saga, bardic poetry; poetry, fiction, and drama of the nineteenth century to the present. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

307 Survey of American Literature to 1865. 3 cr. U/G. Writers and trends in American Literature before 1865, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

308 Survey of American Literature, 1865-1965. 3 cr. U/G. Writers and trends of American Literature, 1865-1965, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

309 Survey of Contemporary American Literature. 3 cr. U/G. Writers and trends of American Literature after 1965, with emphasis on historical, social, and cultural context. Prereq: jr st; satisfaction of GER English Composition competency req

325 The Art of Fiction: (Subtitled). 3 cr. U/G. Study of novels or short stories through a unifying theme, set of technical problems, or critical concepts. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

326 The Development of the Novel: (Subtitled). 3 cr. U/G. Major artistic, social and intellectual events in the history of the novel from its origins to the present. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

327 The Development of the Short Story. 3 cr. U/G. Major artistic, social and intellectual events in the history of the short story from the nineteenth century to the present. Prereq: jr st; satisfaction of GER English Composition competency req

328 Forms of Experimental Literature: (Subtitled). 3 cr. U/G. Approaches to forms of literature that stress experimentation, innovation and the radical alteration of existing forms. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER Composition competency req

329 Film and Literature. 3 cr. U/G. Capabilities and limitations of narrative film and literature, emphasizing the distinctiveness of each artistic mode. Prereq: jr st, English 290(P), satisfaction of GER English Composition competency req; or cons instr

340 The Art of the Drama: (Subtitled). 3 cr. U/G. Origins and development of the genre. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

341 The Development of Drama: (Subtitled). 3 cr. U/G. A historical approach, with emphasis on new ideas in the theatre, new techniques, and the evolution of genres. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

342 Comedy: (Subtitled). 3 cr. U/G. Works from the comic tradition with focus on theme, genre, region, or historical development. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

343 Tragedy: (Subtitled). 3 cr. U/G. Works from the tragic tradition with focus on theme, genre, region, or historical development. Retakable w/chg in topic to 9 cr mac. Prereq: jr st; satisfaction of GER English Composition competency req

344 Modern Drama: (Subtitled). 3 cr. U/G. Topics vary. American and English dramatists since 1920, with emphasis on their stage approach, their use of language; and themes of illusion, communication, and identity. Retakable w/chg in topic to 6 cr max. Prereq: jr st, satisfaction of GER English Competency req; 6 cr in courses approved for hum distr cr

360 The Art of Poetry: (Subtitled). 3 cr. U/G. Inquiry into the art of poetry, with readings from a variety of poets. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

361 The Development of Poetry: (Subtitled). 3 cr. U/G. A study of significant intellectual, artistic, or social events in the history of poetry. Retakable w/chg in topic to 6 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

363 Medieval Epic and Romance. 3 cr. U/G. Study of the traditions of medieval English epic and romance through an examination of representative medieval works. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

370 Folk Literature: (Subtitled). 3 cr. U/G. A study of a particular form or forms of folk literature or the folk literature of a designated region or ethnic group. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

380 Media and Society: (Subtitled). 3 cr. U/G. An examination of film and/or television, with attention to the representation of class, gender, race, and nation. Subtitles vary. Retakable w/chg in topic to 9 cr max. Prereq: jr st; English 290(P) or 291(P) or 6 cr in courses approved for hum distr cr

383 (effective 01/24/2005) Cinema and Genre: (Subtitled). 3 cr. U/G. Stylistic and thematic analyses of literary and film genres (e.g., melodrama, film noir). Consideration of writers, directors, producers and stars whose works represent forms of a genre. Retakable w/chg in topic to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; English 290(P) or 6 cr in courses approved for humanities distr cr

383 Cinema and Genre: (Subtitled). 3 cr. U/G. Stylistic and thematic analyses of literary and film genres (e.g., melodrama, film noir). Consideration of writers, directors, producers and stars whose works represent forms of a genre. Retakable w/chg in topic to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; English 290(P) or 6 cr in courses approved for humanities distr cr

390 Classical Film Criticism and Theory. 3 cr. U/G. Survey of the history of film theory, with particular attention to developing critical skills in film theoretical writing. Prereq: jr st, satisfaction of GER English Composition competency req; English 290(P) & ArtHist 205(P); or cons instr

391 Television Criticism and Theory. 3 cr. U/G. Study of the forms and representational strategies of television narrative, and the various modes of analysis that may be applied to television viewers and texts. Prereq: jr st, satisfaction of GER English Composition competency req; English 291(P) or cons instr

392 Contemporary Film Criticism and Theory: (Subtitled). 3 cr. U/G. Current issues in film criticism and theory and an exploration of critical perspectives (psychoanalysis, feminism, structuralism, post-structuralism) informing recent debates in film studies. Retakable w/chg in topic to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; English 290(P) or 291(P) or cons instr

394 Theories of Mass Culture: (Subtitled). 3 cr. U/G. A survey of theories of mass culture relative to film from the late 19th century to the present. Retakable w/chg in topic to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; English 290(P) or 291(P) or cons instr

395 Feminist Film Criticism and Theory: (Subtitled). 3 cr. U/G. Theories of representation and spectatorship that focus on the position of women in film, television, and/or video. Retakable w/chg in topic to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; English 295(P) or cons instr

400 (effective 01/24/2005) Introduction to English Linguistics. 3 cr. U/G. Application of linguistic theory and techniques to modern English. English/Linguis 400 required of all English majors and minors in School of Education. Jointly-offered with & counts as repeat of Linguis 400. Prereq: jr st; satisfaction of GER English Composition competency req.

400 Introduction to English Linguistics. 3 cr. U/G. Application of linguistic theory and techniques to modern English. English/Linguis 400 required of all English majors and minors in School of Education. Jointly-offered with & counts as repeat of Linguis 400. Prereq: jr st

401 History of the English Language. 3 cr. U/G. The origins of the English language and its changing structure. Prereq: jr st; satisfaction of GER English Composition Competency req.

402 Theories of Language and Literature: (Subtitled). 3 cr. U/G. - Retakable w/chg in topic to 6 cr max. Prereq: jr st, satisfaction of GER English Composition competency req; an intro course in Linguis (e.g. English 400 or 401, Linguis 390 or Anthro 360)

403 Survey of Modern English Grammar. 3 cr. U/G. Studies in elements of grammar, noun and verb phrase, clause and sentence connection, and complex noun phrase. Prerq: jr st; satisfaction of GER English Composition competency req

404 Language, Power, and Identity. 3 cr. U/G. The use of distinctive language varieties to construct identity and maintain power relations within a society. Prereq: jr st; satisfaction of GER English Composition competency req

406 Advanced English Grammar. 3 cr. U/G. Continuation of English 403 with emphasis on the analysis of complex sentences and discourse syntax. Prereq: jr st, satisfaction of GER English Composition competency req; English 403(P)

407 Introduction to Functional Syntax. 3 cr. U/G. Introduction to the study of syntactic patterns, typology, and universals from the standpoint of functionalist syntactic theory. Prereq: jr st, satisfaction of

GER English Composition competency req; English 400(P) or Linguis 350(P)

414 Special Topics in Creative Writing: (Subtitled). 3 cr. U/G. Readings, discussion and assigned writing in specialized areas of creative writing. Retakable w/chg in topic to 9 cr max. Not retakable for major cr. Prereq: jr st; satisfaction of GER English Composition competency req; English 233(P), 234(p), 235(P), or 236(P); or grad st

430 Advanced Writing Workshop. 3 cr. U/G. A tutorial course in advanced exposition. Individual assignments and conferences. Enrollment limited to 12 students. Prereq: jr st; satisfaction of GER English Composition competency req.

431 Topics in Advanced Writing: (Subtitled). 3 cr. U/G. Aspects of composition theory, history and practice applied to both the process and product of writing. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

433 Creative Nonfiction for Publication. 3 cr. U/G. Writing in a variety of creative nonfiction formats, using literary techniques. Preparation of articles for submission to magazines, newspapers, newsletters, and educational publications. Prereq: jr st; satisfaction of GER English Composition competency req

434 Editing and Publishing. 3 cr. U/G. Training and practice in editorial procedures; preparation of fiction/nonfiction manuscripts for book or journal publication; editorial rewriting; editing; copyediting; proofreading; fundamentals of layout/design. Prereq: jr st; satisfaction of GER English Composition competency req; 6 cr in English 201(P), 202(P), 205(P), 206(P), 207(P), 208(P), 230(P), 233(P), 234(P), 235(P), 236(P), 240(P), 414(P), 415(P), 416(P), 430(P), 431(P), 432(P), 433(P), 435(P), 436(P), 437(P), 615(P), or 616(P)

435 Professional and Technical Writing. 3 cr. U/G. The writing process in business, industry, and government, with intensive practice and analysis of professional writing and publishing techniques and products. Prereq: jr st; English 205(P), 206(P), or 207(P), or cons instr

436 Writing for Information Technology. 3 cr. U/G. Theory, methods, and practice in writing clear, concise technical instructions; audience analysis, customer requirements, information architecture, training materials, web projects, and emerging technology discussion topics. Prereq: jr st; English 206(P) & 435(P) or cons instr

437 Project Management for Professional Writers. 3 cr. U/G. Major stages of the writing process in workplace contexts: research, analysis, project planning and management, document design, usability testing, and revision. Prereq: jr st; satisfaction of GER English Composition competency req; English 205(P), 206(P), or cons instr

438 Advanced Research Writing. 3 cr. U/G. Intensive instructions in methods and writing for research papers: audience analysis, bibliographic methods, computer searches, interpretation of data, style guides, abstracts and summaries and the publication process. Prereq: jr st; English 208(P) or cons instr

439 Document Design. 3 cr. U/G. Development of technical writing projects for external clients, applying theories from graphic design, usability, cognitive psychology, and technical communication. Prereq: jr st; English 205(P), 206(P), or 207(P), or cons instr

440 Introduction to Peer Tutoring and Practice. 3 cr. U/G. Students explore their own writing practices in light of rhetorical theory and learn to tutor others. Prereq: jr st; satisfaction of English Composition competency req, & English 201(P), 202(P), 205(P), 206(P), 207(P), or 233(P) w/grade of B- or better or cons instr; or grad st

441 Advanced Peer Tutoring Theory and Practice. 3 cr. U/G. Students will examine various theories of literacy and learning, applying these theories to peer tutoring practice and testing their sufficiency through case-study research. Prereq: English 440(P) or cons instr

445 The Composing Process: (Subtitled). 3 cr. U/G. Issues in composition studies, such as the theory and practice of writing, evaluation and assessment, and collaborative learning. Retakable w/chg in topic to 9 cr max for undergrads or 6 cr max for grads. Prereq: jr st, satisfaction of GER English Composition competency req, or cons instr; or grad st

447 The Essay as Genre. 3 cr. U/G. The range and depth of the essay as a genre; extensive reading; writing evaluative, exploratory essays. Prereq: jr st; satisfaction of GER English Composition competency req, or cons instr; or grad st

449 Writing Internship in English. 1-4 cr. U/G. Experience in a professional setting that enables English majors to apply course work and writing skills and to gain experience toward career goals. Retakable to 9 cr max. Prereq: jr st, satisfaction of GER English Composition competency req, declared English major, & C or better in English 414(P), 415(P), 416(P), 430(P), 431(P), 432(P), 433(P), 434(P), 435(P), 436(P), 437(P), 438(P), 445(P), or 447(P); or grad st in English prog; writ cons instr

451 Chaucer. 3 cr. U/G. Linguistic and intellectual traditions exemplified in Chaucer's poetry. Prereq: jr st; satisfaction of GER English Composition competency req

452 Shakespeare. 3 cr. U/G. Works representing Shakespeare's career, selected from comedies, tragedies, histories, and poems. May be used as a repeat of 453 for students who have not taken English 452 previously. Prereq: jr st; satisfaction of GER English Composition competency req

454 Milton. 3 cr. U/G. Milton's English poetry and selections from his prose. Prereq: jr st; satisfaction of GER English Composition competency req

455 Writers in Drama: (Subtitled). 3 cr. U/G. A significant dramatist or a combination of playwrights. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

456 Writers in English Literature, 1500-1660: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

457 Writers in English Literature, 1660-1798: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req. Not available for grad cr

458 Writers in English Literature, 1798-1900: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

459 Writers in English Literature, 1900 to the Present: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

460 Writers in American Literature, 1500-1900: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

461 Writers in American Literature, 1900 to the Present: (Subtitled). 3 cr. U/G. A significant literary figure or figures in the context of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

463 Writers in African-American Literature: (Subtitled). 3 cr. U/G. A significant figure or figures in African-American literature. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

464 Writers in Irish Literature: (Subtitled). 3 cr. U/G. A significant figure or figures in Irish literature. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

465 Women Writers: (Subtitled). 3 cr. U/G. One or more significant women writers. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

500 Studies in Medieval and Early Modern Literature: (Subtitled). 3 cr. U/G. Major genres, themes, and figures of the Middle Ages through a reading of representative works. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

501 Studies in Literature, 1500-1660: (Subtitled). 3 cr. U/G. Critical study of major genres, themes, figures, tenets, aspects, influences and trends in the literature of the period. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

504 Studies in Literature, 1660-1800: (Subtitled). 3 cr. U/G. Major genres, themes, figures and trends in the literature of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

505 Studies in Literature, 1800-1900: (Subtitled). 3 cr. U/G. Major genres, themes, figures and trends in the literature of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

507 Studies in Literature, 1900 to the Present: (Subtitled). 3 cr. U/G. Major genres, themes, figures and trends in the literature of the period. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

517 Studies in African-American Literature: (Subtitled). 3 cr. U/G. Major genres, themes, figures and trends in African-American literature. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

518 Studies Irish Literature: (Subtitled). 3 cr. U/G. Major genres, themes, figures and trends in Irish literature. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

519 Studies in Irish-American Literature: (Subtitled). 3 cr. U/G. Poetry, novels, short stories, plays or a combination of genre by Irish-American writers studied against dual background of Irish and American culture. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

547 Studies in Theory and Criticism: (Subtitled). 3 cr. U/G. Topics, trends, or approaches in theory and criticism. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

565 Introduction to Adult/University Level TESOL. 3 cr. U/G. Overview of the various approaches to teaching English as a second language (ESL) to adult/university-level learners. Jointly-offered w/& counts as repeat of Linguis 565(426). Does not satisfy requirements in School of Educ. Prereq: jr st; satisfaction of GER English Composition competency req; cons instr

567 Materials for ESL Instruction. 3 cr. U/G. Designed for prospective ESL/EFL teachers. Focus on planning and designing courses to meet the needs of specific populations of language learners. Prereq: jr st; satisfaction of GER English Composition competency req; cons instr

569 Internship in Teaching ESL to Adult Learners. 3 cr. U/G. Designed to provide practical field experience in language teaching to adult/university-level ESL learners. Prereq: jr st; satisfaction of GER English Composition competency req; cons instr

611 (411) The Writer and the Current Literary Scene. 3 cr. U/G. Recent developments in the theory and techniques of contemporary fiction or nonfiction. Especially designed for creative writing students. Prereq: sr st, satisfaction of GER English Composition competency req, & 3 cr in English 415(P), 416(P), 615(P), or 616(P); or grad st

612 (412) Poetry and the Creative Process. 3 cr. U/G. The origin and development of poetic ideas and techniques. Designed especially for creative writing students. Prereq: sr st, satisfaction of GER English Composition competency req, & 3 cr in English 415(P), 416(P), 615(P), or 616(P); or grad st

615 (421) Advanced Workshop in Fiction. 3 cr. U/G. Intensive workshop critiques of student writing. Content varies. Retakable to 6 cr max. Prereq: sr st; 6 cr English 415(420)(P); or grad st

616 (423) Advanced Workshop in Poetry. (Subtitled). 3 cr. U/G. Intensive workshop critiques of student writing. Content varies. Retakable to 6 cr max. Prereq: sr st; satisfaction of GER English Composition competency req, 6 cr in English 416(P), & cons instr based on writing sample; or grad st

620 Seminar in the Art of Literature: (Subtitled). 3 cr. U/G. Intensive study of a literary form or genre, or selected works from varying genres, with emphasis on elements of invention, innovation and craft. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

621 Seminar in the Literature of England: (Subtitled). 3 cr. U/G. Focus upon specific themes, critical or aesthetic issues, or generic development, in one or more periods of English literature. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

622 (effective 01/24/2005) Seminar in Irish Literature: (Subtitled). 3 cr. U/G. Specific themes, critical or aesthetic issues, or generic development, in one or more periods of Irish literature. Retakable w/chg in topic to 6 cr max. Satisfies L&S International & Seminar reqs. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

622 Seminar in Irish Literature: (Subtitled). 3 cr. U/G. Specific themes, critical or aesthetic issues, or generic development, in one or more periods of Irish literature. Retakable w/chg in topic to 6 cr max. Satisfies L&S International & Seminar reqs. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

623 Seminar in American Literature: (Subtitled). 3 cr. U/G. Focus upon specific themes, critical or aesthetic issues, or generic development, in one or more periods of American literature. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

624 (effective 01/24/2005) Seminar in Modern Literature: (Subtitled). 3 cr. U/G. Focus upon specific themes, critical or aesthetic issues, or significant innovations in modern literature, viewed in a cross-cultural or contemporary context. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

624 Seminar in Modern Literature: (Subtitled). 3 cr. U/G. Focus upon specific themes, critical or aesthetic issues, or significant innovations in modern literature, viewed in a cross-cultural or contemporary context. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

625 Seminar in Literary History: (Subtitled). 3 cr. U/G. An intensive study of literature within its historical dimension, stressing the goals and methods of historical criticism and research in connection with specific periods, topics or traditions. Retakable w/chg in topic to 6 cr max. Satisfies L&S seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

626 Seminar in Critical Theory: (Subtitled). 3 cr. U/G. An investigation into one or more critical theories and their contribution to the study of literature. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

627 (effective 01/24/2005) Seminar in Literature and Culture: (Subtitled). 3 cr. U/G. Intensive study of literature within its cultural context, stressing goals and methods of cultural criticism and research in connection with specific issues or topics. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

627 Seminar in Literature and Culture: (Subtitled). 3 cr. U/G. Intensive study of literature within its cultural context, stressing goals and methods of cultural criticism and research in connection with specific issues or topics. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

628 (effective 01/24/2005) Seminar in Literature by Women: (Subtitled). 3 cr. U/G. Focus on major writers or themes, or on a body of work that represents a variety of perspectives on gender issues. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

628 Seminar in Literature by Women: (Subtitled). 3 cr. U/G. Focus on major writers or themes, or on a body of work that represents a variety of perspectives on gender issues. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

629 Seminar in Literature and Sexuality: (Subtitled). 3 cr. U/G. Intensive study of the relationship between literature and human sexuality, focusing on particular periods, topics, or critical and aesthetic issues. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

630 Seminar in Literature and the Other Arts: (Subtitled). 3 cr. U/G. Selections from literature in connection with works from the other arts ranging from the Middle Ages to the present, stressing the importance of an inter-arts perspective. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

631 Seminar in African-American Literature: (Subtitled). 3 cr. U/G. Focus upon major writers or themes, or on a body of work that represents a variety of perspectives on African-American experience. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English &/or

CompLit at the 300-level or above; or grad st

632 Seminar in American Indian Literature: (Subtitled). 3 cr. U/G. Focus on major forms, prominent themes, or tribal traditions in the literature of the American Indian. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit at the 300-level or above; or grad st

633 Seminar in Rhetoric and Writing: (Subtitled). 3 cr. U/G. Examination of a topic in rhetorical theory and its intersections with related fields such as cultural studies, literary criticism, literacy theory, or composition studies. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

634 (effective 01/24/2005) Seminar in English Language Studies: (Subtitled). 3 cr. U/G. Examination of a topic in the study of the English language, providing an opportunity to investigate an issue in language studies in depth. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

634 Seminar in English Language Studies: (Subtitled). 3 cr. U/G. Examination of a topic in the study of the English language, providing an opportunity to investigate an issue in language studies in depth. Satisfies L&S Seminar req. Prereq: sr st, satisfaction of GER English Composition competency req, 9 cr English and/or CompLit courses at the 300-level or above; or grad st

701 The Teaching of College Composition. 4 cr. G. Theories and practices of college composition pedagogy. Prereq: grad st; cons instr

702 English Graduate Institute. (Subtitled). 3 cr. G. A multisection modular summer course in three tracks: literature, english language, and composition. Six three-week sections are offered. Students may enrol for a max of 2 sections each summer. Retakable w/chg in topic to 12 cr max. Prereq: grad st

704 Teaching Creative Writing. 3 cr. G. Approaches to the teaching of creative writing at elementary, high school or college levels. Consult instr to determine emphasis & range. Prereq: grad st

706 Seminar in Professional Writing Theory and Pedagogy. 3 cr. G. Theory and application of various approaches to teaching technical and business writing on the college and university level. Prereq: grad st

707 Writing for Business Management. 2-3 cr. G. Theory and practice of business writing: advanced techniques of audience analysis, organization, persuasion, and revision for clarity, in writing reports, memos, letters, and journal articles. Prereq: grad st in school of business administration or cons instr

708 Advanced Professional Writing. 3 cr. G. Seminar on the theory and development of students' professional approaches to writing, research on professional writing genres, and intensive analysis and editorial revisions of documents. Not open to students with grad cr in English 435(ER). Prereq: grad st

709 Rhetoric, Writing, and Information Technology. 3 cr. G. Seminar on theory and research concerning audiences and information architecture for on-line discourse, instructional design, e-learning, documentation systems, hypertext, markup languages, cultural factors, and Web site development. Not open to students with grad cr in English 436(ER). Prereq: grad st

710 Advanced Project Management for Professional Writers. 3 cr. G. Seminar on the theoretical issues, empirical findings, and advanced strategies for project management; research, task analysis, planning, collaboration, problem solving, document design, usability testing and quality evaluation. Not open to students w/ grad cr in English 437(ER). Prereq: grad st

711 Topics in Professional Writing: (Subtitled). 3 cr. G. Special topics seminar in the history, theory, pedagogy, or practice of professional writing. Special focus on public and workplace literacy. Retakable w/ chg in topic to 9 cr max. Prereq: grad st

712 Professional Writing Theory. 3 cr. G. Seminar on the major theoretical perspectives influencing the field of professional writing. Prereq: grad st

713 Qualitative Research in Writing and Literacy. 3 cr. G. Seminar on the issues and practice of qualitative research as it applies to areas of inquiry related to writing and literacy. Prereq: grad st

714 Usability Studies. 3 cr. G. Seminar on history and theory of usability studies and advanced practice in usability assessment and testing. Prereq: grad st

715 Narrative Craft and Theory: (Subtitled). 3 cr. G. Analysis of selected prose narratives with emphasis on technical, generic, and aesthetic features. Retakable w/chg in topic to 9 cr max. Prereq: grad st or cons coord of Creative Writing

716 Poetic Craft and Theory. (Subtitled). 3 cr. G. Analysis of selected poems with emphasis on technical, generic, and aesthetic features. Retakable w/chg in topic to 9 cr max. Prereq: grad st or cons coord of creative writing

717 Directed Writing in Fiction. 3 cr. G. Advanced tutorials with seminar component. Content varies. Retakable up to 6 cr max. Register with listed instructor(s) only. Prereq: grad st & cons instr

718 Directed Writing in Poetry. 3 cr. G. Advanced tutorials with seminar component. Content varies. Register with listed instructor(s) only. May be retaken up to 6 cr. Prereq: grad st & cons instr

720 Modern Literary Theory. 3 cr. G. A graduate-level introduction to the major critical and theoretical perspectives of the 20th century. Prereq: grad st

731 History of the English Language. 3 cr. G. A graduate-level survey of the history of the English language and related scholarship. Prereq: grad st

732 Modern English Grammar. 3 cr. G. A graduate-level introduction to modern English grammar and the study of English linguistics. Prereq: grad st

734 The Rhetoric of Written Discourse. 3 cr. G. A graduate-level survey of the relationship of rhetoric through western history to the development of written discourse and the analysis of british and american literature. Prereq; grad st

735 Stylistics. 3 cr. G. A graduate-level introduction to stylistics and the stylistic analysis of literature. Prereq: grad st & cons instr

736 Bibliography and Research. 3 cr. G. A graduate-level introduction to the use of reference works, bibliographical tools, and scholarly periodicals and to the writing of scholarly articles for publication. Prereq: grad st

737 Literature and Aesthetics. 3 cr. G. A GRADUATE-LEVEL INTRODUCTION TO THE MAJOR AESTHETIC PHILOSOPHIES AND THEORIES OF THE WESTERN TRADITION, WITH EMPHASIS ON THEIR RELEVANCE TO MODERN CRITICISM AND THEORY. PREREQ: GRAD ST

738 Theories of Language, Literature, or Composition: (Subtitled). 3 cr. G. Introduction to scholarship in theoretical or methodological approaches to language, literature, or composition. Retakable w/chg in topic to 9 cr max. Prereq: grad st

740 Backgrounds of Modernism I: 1750-1914. 3 cr. G. Seminar on major figures and intellectual forces that have shaped the history of modernism, from the 19th century to approximately the end of World War I. English 740, Hist 740, & MAFLL 740 are jointly offered; they count as repeats of one another. Prereq: grad st

741 Backgrounds of Modernism II: The Twentieth Century. 3 cr. G. Seminar on major figures and intellectual forces that have shaped the history of modernism and postmodernism from the end of World War I through the present. English 741, Hist 741 & MAFLL 741 are jointly offered; they count as repeats of one another. Prereq: grad st

742 Mass Culture. 3 cr. G. A graduate level introduction to mass culture, with an emphasis on forms and theories of mass culture from the mid-19th century to the present. Prereq: grad st

743 Film Studies. 3 cr. G. A graduate-level introduction to film studies, including methods of film analysis and approaches to the history of film. Prereq: grad st

744 Feminist Critical Theory. 3 cr. G. A graduate-level introduction to feminist theory and its application to literary & cultural studies. Prereq: grad st

745 Postmodernism. 3 cr. G. A graduate-level introduction to postmodernism in literature and other cultural forms. Prereq: grad st

750 History of Rhetoric I: Classical Rhetoric. 3 cr. G. Background in Greco-Roman rhetorical traditions and critical commentary on those traditions. Prereq: grad st

751 History of Rhetoric II. (Subtitled). 3 cr. G. Study of central themes, concepts, and issues after the classical period. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 750(P)

752 Essay as Genre. 3 cr. G. A study of the tradition of the essay in England and America and its relation to rhetoric and composition. Prereq: grad st

753 Contemporary Rhetorical Theory. 3 cr. G. Survey of rhetorical theory in contemporary scholarship, criticism, and research, with special emphasis on the development of rhetorical concepts and composition studies. Prereq: grad st; English 750(P) or cons instr

754 Post-Secondary Composition-Topics in Pedagogical Theory: (Subtitled). 3 cr. G. Topics in pedagogical theory applicable to teaching post-secondary composition, such as the composing process, discourse, analysis, literacy, or writing assessment. Retakable w/chg in topic to 6 cr max. Prereq: grad st & English 701(P), or equiv post-secondary teaching experience, or cons instr

755 Issues in Composition Studies. 3 cr. G. Analysis of major issues in rhetoric and composition within historical and theoretical contexts. Prereq: grad st

756 Research and Methodology in Rhetoric and Composition. 3 cr. G. Research methods, theoretical issues, and scholarly resources for rhetoric and composition. Extensive reading and research assignments geared to students' professional needs and goals as scholars. Prereq: grad st; English 753(P), 755(P) or cons instr

758 Writing Workshop in Rhetoric and Composition. 3 cr. G. Graduate-level course on writing and the critique of writing practice. Prereq: grad st

760 Research Methods in Linguistics and ESL. 3 cr. G. Introduction to basic research methodology in linguistics and ESL. Prereq: grad st; cons instr

761 Discourse Analysis. 3 cr. G. A graduate-level introduction to the formal analysis of discourse. Prereq: grad st; English 403(P) or Linguis 464(P) or equiv

763 Morphology. 3 cr. G. A graduate-level introduction morphological theory. Prereq: grad st; Linguis 460(P) & 464(P) or equiv

764 Sociolinguistics. 3 cr. G. A graduate-level investigation of selected topics in sociolinguistic theory and method. Prereq: grad st

765 Semantics and Pragmatics. 3 cr. G. A graduate-level investigation of selected topics in the study of meaning. Prereq: grad st; Linguis 466(P) or cons instr

766 Theory of Second Language Acquisition. 3 cr. G. A graduate-level introduction to theories of second language acquisition. Prereq: grad st

767 Linguistic Perspectives on Composition. 3 cr. G. A survey of linguistic theory and technique relevant to the teaching of composition and an examination of theories of composition from a linguistic perspective. Prereq: grad st

768 Linguistic Perspectives on Literature. 3 cr. G. A survey of linguistic theory and technique relevant to the study of literature. The relation between linguistic theory, semiotics, and literary theory. Prereq: grad st

769 Topics in Linguistics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

770 Early and Medieval English Literature: (Subtitled). 3 cr. G. Introduction to early and medieval english literature and approaches to medieval study, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

771 Literature of the English Renaissance: (Subtitled). 3 cr. G. Introduction to the literature of the english renaissance, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

772 Restoration and Eighteenth-Century Literature: (Subtitled). 3 cr. G. Introduction to English literature, 1660-1800, and related scholarship, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

773 English Literature of the Romantic Age: (Subtitled). 3 cr. G. Introduction to the literature of the english romantic period, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

774 Literature in Victorian England: (Subtitled). 3 cr. G. Introduction to English literature, 1837-1901, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

775 Modern English Literature: (Subtitled). 3 cr. G. Introduction to English literature of the 20th century, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

776 Women Writers: (Subtitled). 3 cr. G. A course focusing on the major women writers of a period or genre, or in relation to specified themes. Retakable w/chg in topic to 6 cr max. Prereq: grad st

777 American Literature to 1830: (Subtitled). 3 cr. G. Introduction to American literature to 1830, with related scholarship, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

778 Native American Literature: (Subtitled). 3 cr. G. Introduction to the literature of the american indian, emphasizing critical approaches and relevant scholarship. Retakable w/chg in topic to 6 cr max. Prereq: grad st

779 American Literature, 1830-1900: (Subtitled). 3 cr. G. Introduction to American literature from 1830-1900, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

780 African American Literature: (Subtitled). 3 cr. G. Introduction to the major writers and themes in african american literature, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

781 Modern American Literature: (Subtitled). 3 cr. G. Introduction to American literature of the 20th century, emphasizing current critical issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st

782 Contemporary Literature: (Subtitled). 3 cr. G. Introduction to recent developments in English and American literature, emphasizing new writers and significant literary innovations. Retakable w/chg in topic to 6 cr max. Prereq: grad st

783 World Literature in English: (Subtitled). 3 cr. G. A course focusing on the major writers, themes and traditions of national/ethnic groups outside england and the united states. Retakable w/chg in topic to 6 cr max. Prereq: grad st

784 Theories of Comparative Literature. 3 cr. G. A course focusing on the comparativist approach to the literatures of two or more languages and/or national traditions with emphasis on current critical issues and research methods. Prereq: grad st

789 Internship in Teaching ESL to Adult Learners. 1-6 cr. G. Field experience in teaching English as a second language to adult learners. Open only to grad students in English Plan D specializing in ESL. Retakable to max of 6 cr. Prereq: 'pass' on Plan D written English MA exam

798 Graduate-Level Service Learning. 1 cr. G. Faculty-supervised placement of students as community service volunteers. Retakable to 3 cr max. Prereq: grad st or cons instr; conc reg in English 700-level or above service learning course.

799 Independent Reading for Master's Candidates. 1-4 cr. G. - Prereq: grad st; cons instr

805 Seminar in English Language: (Subtitled). 3 cr. G. The seminar deals at an advanced level with specific topics in English language, both contemporary and historical. Retakable w/chg in topic to 9 cr max. Prereq: grad st & English 400(P)

806 Seminar in Linguistics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

807 Seminar in Stylistics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st & English 402(P) or 732(P)

810 Seminar in Bibliography and Textual Criticism. 3 cr. G. Training in the process of research and analytical bibliography and textual criticism. Prereq: grad st

812 Seminar in Theories of Composition and Rhetoric: (Subtitled). 3 cr. G. A graduate-level introduction to the history and current development of rhetoric and composition theory, and to their applications in research in written composition. Retakable w/chg in topic to 9 cr max. Prereq: grad st

813 Special Topics in Creative Writing: (Subtitled). 3 cr. G. Readings, writing, and discussion in a designated genre, form, or literary tradition. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

814 Seminar in Irish Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

815 Seminar in Fiction Writing: (Subtitled). 3 cr. G. Content varies. A workshop for graduate students. Retakable to 6 cr max. Prereq: grad st & English 715(P)

816 Seminar in Poetry Writing: (Subtitled). 3 cr. G. Content varies. A workshop for advanced graduate students. Retakable to 6 cr max. Prereq: grad st; English 716(P)

817 Seminar in Critical Writing. 3 cr. G. An advanced workshop in the writing and revising of critical essays. Prereq: grad st

818 Project in Editing a Literary Magazine. (Subtitled). 3 cr. G. History and theory of editing, producing and distributing of literary magazines in america within the context of practice--editing an issue of cream city review. Content varies. Retakable to a 6 cr max. Prereq: grad st; cons instr

819 Project in Creative Writing. 1-6 cr. G. Content varies. Retakable w/chg in topic to 6 cr max. Open only to MA candidates in Plan C, creative writing. Prereq: grad st

820 Seminar in Advanced Topics in Literary Criticism and Research: (Subtitled). 1-3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

821 Seminar in the Novel: (Subtitled). 3 cr. G. An intensive examination of some aspect of the genre (history, theory, thematic or technical problems, major fig-

ures). Retakable w/chg in topic to 9 cr max. Prereq: grad st

822 Seminar in Poetry: (Subtitled). 3 cr. G. An intensive examination of some aspect of the genre, including questions of history, theory, theme, or technique, or the study of major figures. Retakable w/chg in topic to 9 cr max. Prereq: grad st

823 Seminar in the Drama: (Subtitled). 3 cr. G. Advanced study in dramatic form, with variable content, thematic and/or historical, or with focus on particular writers. Reading will include plays and critical works. Retakable w/chg in topic to 9 cr max. Prereq: grad st

824 Seminar in Special Topics in Literature: (Subtitled). 3 cr. G. Advanced study of a topic in literary history, criticism or theory. Retakable w/chg in topic to 9 cr max. Prereq: grad st

825 Seminar in Major Figures: (Subtitled). 3 cr. G. Topics vary. Poetry, fiction, drama, and non-fiction prose writers, with attention to biography, culture and literary background. Retakable w/chg in topic to 9 cr max. Prereq: grad st

826 Seminar in Literary Forms: (Subtitled). 3 cr. G. An intensive examination of the formal properties of literature, with emphasis on forms which elude generic classification. Retakable w/chg in topic to 6 cr max. Prereq: grad st

827 Seminar in Contemporary Literature: (Subtitled). 3 cr. G. Advanced study of a specialized topic or critical issue in the recent work of contemporary writers in english. Retakable w/chg in topic to 6 cr max. Prereq: grad st

828 Seminar in Comparative Literature: (Subtitled). 3 cr. G. Advanced study of a specialized topic or critical issue in the literatures of two or more languages and/or national traditions. Retakable w/chg in topic to 6 cr max. Prereq: grad st

831 Seminar in Medieval Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

833 Seminar in Chaucer. 3 cr. G. - Prereq: grad st; English 451(P)

841 Seminar in Renaissance Drama: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

843 Seminar in Renaissance Prose and Poetry: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

845 Seminar in Shakespeare: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

846 Seminar in Milton. 3 cr. G. - Prereq: grad st

850 Seminar in the History of Rhetoric: (Subtitled). 3 cr. G. Issues in the history and historiography of rhetoric. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 750(P)

851 Seminar in Restoration and Eighteenth Century Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st & English 725(P) or 303(P)

853 (effective 09/06/2005) Seminar in Contemporary Rhetorical Theory: (Subtitled). 1-3 cr. G. Issues, topics, and major figures in contemporary rhetoric, philosophies of composition, critical discourse, and theories of writing. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 750(P); English 753(P) or 755(P)

853 Seminar in Contemporary Rhetorical Theory: (Subtitled). 3 cr. G. Issues, topics, and major figures in contemporary rhetoric, philosophies of composition, critical discourse, and theories of writing. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 750(P); English 753(P) or 755(P)

854 Seminar in College Composition, Theory and Pedagogy: (Subtitled). 3 cr. G. Professional concerns in teaching college composition; develops various topics in-depth, such as cultural literacy or large-scale assessment. Retakable w/chg in topic to 6 cr max. Prereq: grad st; 6 cr at 700-level, including English 706(P), 754(P), or 755(P)

855 Seminar in Theories of Business and Technical Writing: (Subtitled). 3 cr. G. Theories of writing processes and products in the workplace. The effects of institutional structures and corporate cultures on writers and writing. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 706(P);English 753(P) or 756(P)

856 Seminar in Research and Scholarship: (Subtitled). 3 cr. G. Advanced study of particular methods or topics of research and scholarship in rhetoric and composition. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 755(p) or 756(p)

858 Seminar in Professional and Literary Nonfiction: (Subtitled). 3 cr. G. Advanced study of publications and audiences in nonfiction; intensive writing and research in scholarship, education, the arts, human services, business, and government. Retakable w/chg in topic to 6 cr max. Prereq: grad st; English 758(p)

861 Seminar in Romantic Literature: (Subtitled). 3 cr. G. This seminar will examine one or more aspects of english romanticism as expressed in the poetry and essays of the age. Retakable w/chg in topic to 9 cr max. Prereq: grad st

862 Seminar in Victorian Literature: (Subtitled). 3 cr. G. Advanced studies in victorian poetry, fiction, drama, and non-fiction prose, with attention to culture and critical theory. Retakable w/chg in topic to 9 cr max. Prereq: grad st

871 Seminar in African American Literature: (Subtitled). 3 cr. G. Intensive examination of one or more major writers, themes, or critical topics in the literature of african americans. Retakable w/chg in topic to 6 cr max. Prereq: grad st

872 Seminar in Women Writers: (Subtitled). 3 cr. G. Intensive examination of one or more major writers, themes, or critical topics. Retakable w/chg in topic to 6 cr max. Prereq: grad st

874 Seminar in World Literature in English: (Subtitled). 3 cr. G. Advanced study of one or more major writers or special topics in the literature outside england and the united states. Retakable w/chg in topic to 6 cr max. Prereq: grad st

875 Seminar in Modern Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

876 Seminar in Mass Culture: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

877 Seminar in Film Theory: (Subtitled). 3 cr. G. A graduate-level seminar in film theory. Retakable w/chg in topic to 6 cr max. Prereq: grad st

878 Seminar in Feminist Critical Theory: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

879 Seminar in Native American Literature: (Subtitled). 3 cr. G. Intensive examination of one or more major writers, themes, or critical topics in the literature of native americans. Retakable w/chg in topic to 6 cr max. Prereq: grad st

881 Seminar in Colonial American Literature: (Subtitled). 3 cr. G. Advanced studies in the literature of colonial america with special attention to cultural and literary backgrounds and critical theory. Retakable w/chg in topic to 9 cr max. Prereq: grad st

882 Seminar in Nineteenth-Century American Literature: (Subtitled). 3 cr. G. Retakable w/chg in topic to 6 cr max. Prereq: grad st Retakable w/chg in topic to 6 cr max. Prereq: grad st

883 Seminar in Twentieth-Century American Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

885 Seminar in Critical Theory: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for students who must meet minimum credit requirement. Fee for 1 cr assessed. Prereq: grad st

990 Research in English. 1-3 cr. G. Reserved for research in connection with doctoral thesis. Retakable as necessary to fulfill thesis requirements. Consult coord grad studies. Prereq: admis to Ph.D. prog & completion of 45 grad cr

999 Independent Reading for Ph.D. Candidates. 1-3 cr. G. Consult graduate advisor. Prereq: admis to Ph.D. candidacy

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in English.

Comparative Literature 533 Seminar in Trends in Modern Literature. 3 cr, U/G.

Film Studies 700 Teaching Film Studies. 3cr, G.

Journalism and Mass Communication 662 Mass Communication and Culture. 3 cr, U/G.

English PhD - Linguistics Concentration

Computer Science 423 Introduction to Natural Language Processing. 3 cr, G.

Educational Psychology 741 Cognitive Development. 3 cr, G.

Philosophy 916 seminar in the Philosophy of Language and Linguistics. 2-3 cr, G.

Psychology 706 Psychology of Language. 3 cr, G.

EXCEPTIONAL EDUCATION

School of Education

Degree Conferred: MS in Exceptional Education
Phone: (414) 229-5251
FAX: (414) 229-5500
Web site:
www.uwm.edu/Dept/EXED/master.htm

The Department of Exceptional Education offers two options for a program of study at the master's level: a general option or a certification option. Students choosing the General Option enroll in 15 credits of core requirements and 15 credits that reflect a focus area of study. This program is created in consultation with a faculty advisor. Students choosing the Certification Option must be accepted into one of the Department of Exceptional Education's Post-Baccalaureate Teacher Certification Programs as well as the Graduate Program. Certification programs include Early Childhood Education (0-8 yrs), Primary/Middle and Middle/Secondary Education (grades K-9 or 6-12 in the areas of learning disabilities, cognitive disabilities, and emotional disturbance), Deaf and Hard of Hearing (grades K-12). Up to 15 credits of coursework in the certification program may be applied to the Master's degree in addition to 15 credits of core requirements.

Under the auspices of the PhD program in Urban Education, the Department offers doctoral level training with a designated specialization in Exceptional Education.

Graduate Faculty

PROFESSORS

Hains, Ann Higgins, PhD., University of Kansas, Chair
McLean, Mary, Ph.D., University of Wisconsin-Madison
Obiakor, Festus, Ph.D., New Mexico State University
Otis-Wilborn, Amy, Ph.D., University of Kansas

ASSOCIATE PROFESSORS

Blanchett, Wanda, Ph.D., Pennsylvania State University
Edyburn, Dave, Ph.D., University of Illinois-Urbana-Champaign
Ford, Alison, Ph.D., University of Wisconsin-Madison
Keyes, Maureen, Ph.D., University of Wisconsin-Madison
Owens, Laura, Ph.D., University of Wisconsin-Madison
Winn, Judith, Ph.D., Michigan State University

ASSISTANT PROFESSORS

Frattura, Elise, Ph.D., University of Wisconsin-Madison
Rice, Nancy, Ph.D., Syracuse University
Shealy, Monika, Ph.D., University of Central Florida
Xu, Yaoying, Ph.D., University of Nevada - Las Vegas

Master of Science in Exceptional Education

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Two letters of recommendation relating to the student's ability to successfully compete in a graduate program.
- Personal interview to determine an applicant's basis for seeking admission, potential for completion of the program, and relevant background and experience in exceptional education.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations.

Credits and Courses
The minimum degree requirement is 30 graduate credits, of which 18 credits must be in the Department of Exceptional Education. The remaining credits may be taken either in or outside of the School of Education. A maximum of 15 credits of U/G (undergraduate/graduate) courses may be counted toward the master's degree. Of the 30 credits, 15 are Program Core Requirements and the remaining 15 credits are either a) certification courses (Certification Option) or b) courses that reflect a focus area of study. Courses in either the Certification Option or General Option are determined in consultation with an advisor from suggested course options identified by the Department.

PROGRAM CORE REQUIREMENTS (15 credits)

A. Issues and Trends (3 cr.)
B. Research course (3 cr.)
C. Capstone Seminar in Special Education (3 cr.)
D. Advanced issues or methods course in Special Education (3 cr.)
E. Thesis/Research course (3 cr.)

CERTIFICATION OPTION (Up to 15 credits)

A student pursuing the Certification Option must be admitted to the Department of Exceptional Education's Post-Baccalaureate Teacher Certification Program (consult Undergraduate Bulletin for more information on admission dates and requirements). In consultation with an advisor, a student selects up to 15 credits of coursework required in the certification program for graduate credit. Additionally, the student enrolls in 15 credits of program core requirements. Listed below are the courses in each of the certification programs that can be taken for graduate credit.

A. Instruction

Primary/Middle
ExcEduc 681 Literacy II (3 cr.)
ExcEduc 605 Child, Learner, Disabilities (3 cr.)
ExcEduc 662 Collaborative Strategies (3 cr.)

Deaf/Hard of Hearing
ExcEduc 562 Hearing Science (3 cr.)
ExcEduc 563 Speechreading/Auditory Rehabilitation (3 cr.)
ExcEduc 605 Child, Learner, Disabilities (3 cr.)
ExcEduc 681 Literacy II (3 cr.)

Middle/High
ExcEduc 605 Child, Learner, Dis-

abilities (3 cr.)
ExcEduc 635 Curriculum Accommodations I: Middle/High (2 cr.)
CurrIns 545 Reading in the Content Areas (3 cr.)
ExcEduc 636 Curriculum Accommodations II (2 cr.)
ExcEduc 662 Collaborative Strategies (3 cr.)
ExcEduc 576 Curriculum Accommodations III (2 cr.)

Early Childhood
ExcEduc 568 Assessment and Curriculum in Early Intervention: Birth to Three (3 cr.)
ExcEduc 569 Assessment and Curriculum in Special Education: Preschool (3 cr.)
ExcEduc 570 Assessment and Curriculum in Special Education: Primary (3 cr.)
ExcEduc 634 Collaborative Consultation and Teaming in Early Childhood Special Education (1 cr.)
ExcEduc 681 Literacy II (3 cr.)
ExcEduc 651 Working with Families in Urban Communities I (1 cr.)
ExcEduc 652 Working with Families in Urban Communities II (1 cr.)

B. Administration and Supervision
In cooperation with Administrative Leadership

ExcEduc 579 Current Topics: Pupil Services
ExcEduc 780 Internship in Special Education Administration
ExcEduc 805 Legislative and Legal Aspects of Exceptional Education
ExcEduc 960 Seminar: Administration and Supervision of Programs for Exceptional Individuals

GENERAL OPTION (15 credits)

The general option for a Master's program in the Department of Exceptional Education is developed by identifying a theme of study that is based upon the student's educational background, areas of professional interest, and professional development goals. A theme, for example, may focus on assessment, instruction, policy, or other relevant issues in the area of special education. Courses are selected in consultation with a faculty advisor.

Thesis
A thesis or master's project is required for all students in the certification and general options. All students are required to present the results of their thesis or project at a seminar session in the semester in which they complete their degree.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Urban Education

Specialization in Exceptional Education. Under the auspices of the doctoral program in Urban Education, the Department of Exceptional Education provides doctoral training with a specialization in Exceptional Education. The program emphasis is on policy studies, curriculum development, administration, and learning and development of individuals with handicaps. Prospective doctoral students wishing to specialize in Exceptional Education must first be admitted to the Urban Education Doctoral Program. Admission and general program requirements can be obtained from the Director of Doctoral Studies in Urban Education. This program is described in detail in the Urban Education section of this Bulletin.

Courses

Exceptional Education (EXCEDUC)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

301 (539) American Sign Language I. 3 cr. U/G. This course will introduce basic American Sign Language structure and study of deaf culture. Basic fingerspelling principles are also introduced. Prereq: noneNot Open to Auditors

302 (540) American Sign Language II. 3 cr. U/G. This course will continue skills in American Sign Language, fingerspelling and the study of deaf culture. Prereq: ExcEduc 301(539)(P), or cons instrNot Open to Auditors

303 (423) American Sign Language III. 3 cr. U/G. Focus is on the development of intermediate level skills in American Sign Language, its structure and study of deaf culture. Prereq: ExcEduc 302(540)(P) or cons instrNot Open to Auditors

304 (428) American Sign Language IV. 3 cr. U/G. Focus on the continuing development of intermediate level skills in American Sign Language, its structure and the study of deaf culture. Prereq: ExcEduc 303(423)(P) or cons instr

305 American Sign Language V. 3 cr. U/G. Advanced American Sign Language focusing on classifiers, fingerspelling, numeric techniques and grammar. Prereq: ExcEduc 304 (428) (P)

306 American Sign Language VI. 3 cr. U/G. Advanced American Sign Language focusing on register, colloquialisms, storytelling and poetry. Prereq: ExcEduc 305 (P)

347 Introduction to Oral Interpreting: (Subtitled). 3 cr. U/G. Theory and factors related to techniques for oral interpreting, including visibility factors and paraphrasing. Not open to students with cr in ExcEduc 326(426). Not retakeable. Prereq: jr st & admis to ITP, or grad st; or cons instr

349 Field work: Interacting in the Deaf Community I. (Subtitled). 3 cr. U/G. Experiences of observation, actual interpreting, sign teaching and interaction with deaf community. Weekly seminar provides forum for feedback and processing experiences. Not open for cr to students with cr in ExcEduc 322(657). Prereq: jr st, admis to ITP, or cons instr

352 American Deaf Culture. 3 cr. U/G. The impact of Deaf culture on the Deaf community and Deaf education, understanding the Deaf person in a cultural context. Not open for cr to students with cr in ExcEduc 340(650). Prereq: jr st & admis to ITP; or grad st, cons instr

353 Introduction to Culturally Diverse Community Resources. 3 cr. U/G. Overview of community resources serving consumers with hearing impairments. Professionals and consumers from agencies and organizations will address needs as they relate to interpreting. Not open for cr to students with cr in ExcEduc 342(421). Prereq: jr st & admis to ITP, or grad st, or cons instr

354 Field work: Interacting in the Deaf Community II. 3 cr. U/G. Continuation of ExcEduc 349: requires time observing, interpreting, teaching and community interaction. Weekly seminars continue to provide forum for processing of experiences. Not open for cr to students with cr in ExcEduc 323(658). Prereq: jr st & admis to ITP, & ExcEduc 349(P); or grad st

358 (310) ASL/English Linguistics for Interpreters I. 3 cr. U/G. The linguistics of American Sign Language, exploring its structure and grammar, emphasizing its phonology and its comparison to English. Prereq: admis to ITP, or grad st, or cons instr

363 (311) ASL/English Linguistics for Interpreters II. 3 cr. U/G. Focus on the linguistics of American Sign Language, including emphasis on its morphology and syntax and its comparison to English. Prereq: ExcEduc 358(310)(P) or grad st

529 Mainstreaming: Integrating the Special Student into the Preschool Classroom. 3 cr. U/G. Understanding the needs of preschool handicapped children, emphasizing methods of assessment and programming in mainstreamed settings. Prereq: jr st & admis to school of educ; or grad st

530 Collaborative Teaching and Accommodating Students with Disabilities. 2 cr. U/G. Strategies for understanding learners with disabilities, curriculum accommodations needed, and collaboration with teachers, parents and students. Prereq: jr st & admis to School of Educ; or grad st

531 Mainstreaming: Integrating Student with Exc Ed Needs into Secondary Classroom. 2-3 cr. U/G. Understanding the needs of secondary level students with handicaps, emphasizing methods of assessment and programming in mainstreamed settings. Prereq: jr st & admis to School of Educ; or grad st

532 Assessment and Monitoring. 3 cr. U/G. Roles and responsibilities in district-wide and alternative assessment, developing monitoring systems, report writing, equitable and just assessment practices. Prereq: admis to Post-Bac Cert prog or cons instr

533 Assessment/Monitoring : Deaf & Hard of Hearing. 1 cr. U/G. Roles and Responsibilities in District-Wide and Alternative Assessment, Developing Monitoring Ssystems, Report Writing Promotive, Equitable and Just Assessment Practices. Prereq: admis to Post-Bac Cert prog or cons instr

536 (effective 05/23/2005) Inclusion for Secondary Science and Math Educators I. 2 cr. U/G. Overview of characteristics of students with disabilities. Methods and strategies for working with students in general settings. Prereq: jr st; admis to Post-Bac Cert prog or cons instr

537 (effective 09/06/2005) Inclusion for Secondary Science and Math Educators II. 1 cr. U/G. Continuation of ExcEduc 536. Practicum to gain experience working with students with disabilities in general education settings. Prereq: jr st; ExcEduc 536(P); admis to Post-Bac Cert prog or cons instr

541 Manual Communication Skills I. 3 cr. U/G. Developing preliminary instructional skills in using manual communication for the hearing impaired. Prereq: jr st & admis to school of educ; or grad st. Students must pass competency test in basic aspects of manual communication

542 Manual Communication Skills II. 3 cr. U/G. Developing advanced instructional skills in using manual communication for the hearing impaired; a field component is required. Prereq: ExcEduc 541 or cons instr

553 Curriculum Methods I: Early Childhood Exceptional Education Needs. 3 cr. U/G. Curricular approaches, informal assessment and intervention strategies; development, use, and evaluation of instructional materials for young children with mild handicaps. Prereq: ExcEduc 630, conc reg in variance student teaching or cons instr

554 Curriculum Methods II: Early Childhood Exceptional Education Needs. 3 cr. U/G. Curriculum for children with multiple handicaps: extending upon play, organizing instructional environments, home training, integration of supportive services, inservice programming, mainstreaming in early childhood programs. Prereq: ExcEduc 553, conc reg in variance student teaching or cons instr

555 Education of the Moderately Mentally Retarded I. 3 cr. U/G. Methods, materials and curriculum for moderately mentally retarded individuals; one of two methods courses focusing on low-functioning individuals. Prereq: ExcEduc 630, conc reg in variance student teaching or cons instr

556 Education of the Moderately and Severely Handicapped II. 3 cr. U/G. Methods, materials and curriculum for moderately and severely handicapped individuals; one of two methods courses focusing on low-functioning individuals. Prereq: ExcEduc 555, conc reg in variance student teaching or cons instr

558 Communication in the Classroom I: Deaf/Hard of Hearing. 3 cr. U/G. Developing proficiency and instructional skills in using manual communication for individuals who are deaf or hard of hearing in the educational context. Prereq: must pass competency test in basic aspects of manual communication prior to registration; jr st; admis to Post-Bac Cert prog or cons instr

559 Communication in the Classroom II: Deaf/Hard of Hearing. 3 cr. U/G. Linguistic analysis and curriculum planning for facilitating the development of communication in students who are deaf or hard of hearing. Prereq: ExcEduc 680(P) & 681(P). Admis to Post-Bac Cert prog or cons instr

562 Hearing Science. 3 cr. U/G. Overview of physical and psycho-physical concepts of hearing science, speech mechanism, audiological evaluation and implications for the educational context. Prereq: admis to Post-Bac Cert prog or cons instr

563 Speechreading/Auditory Rehabilitation. 3 cr. U/G. Techniques for teaching speech, speechreading, listening, and auditory training for children who are deaf or hard of hearing. Prereq: admis to Post-Bac Cert prog or cons instr; ExcEduc 562(P); jr st

564 Communication Methods Practicum. 3 cr. U/G. Field experience with individuals with hearing impairments in

schools. Emphasis on spoken and sign language development. Includes scheduled class and demonstrations. Prereq: jr st; admis to School of Educ or grad st; ExcEduc 541, 562 & 563, or cons instr

565 Techniques of Teaching School Subjects to Individuals w/Hearing Impairments II. 3 cr. U/G. Methods of teaching social studies, science, and mathematics as related to the language needs of students with hearing impairments and academic deficiencies. Prereq: jr st & admis to School of Educ, or grad st; ExcEduc 560 & 561 or cons instr

568 Assessment and Curriculum in Early Intervention: Birth to Three. 3 cr. U/G. First of a series of three assessment and curriculum courses. Designed for teachers serving infants and toddlers with disabilities and their families. Prereq: jr st; ExcEduc 647(C)

569 Assessment and Curriculum in Special Education: Preschool. 3 cr. U/G. Second of a series of three assessment and curriculum courses. Designed for teachers serving preschool children with disabilities and their families. Prereq: jr st; ExcEduc 568(P); 648(C)

570 Assessment and Curriculum in Special Education: Primary. 3 cr. U/G. Third in a series of three assessment and curriculum courses. Designed for teachers serving primary children with disabilities and their families. Prereq: jr st; ExcEduc 569(P); 681(C); 649(C)

571 Curriculum Accommodations I: Primary/Middle. 3 cr. U/G. Determine individualized goals within a broad curriculum framework and develop strategies for making accommodations in teaching methods, materials and class set-up. Prereq: admis to Post-Bac Cert prog or cons instr; jr st; ExcEduc 587(C)

574 Curriculum Accommodations II: Primary/Middle. 3 cr. U/G. In-depth experience in IEP planning and scheduling to accommodate students with highly individualized needs within the academic curriculum. Prereq: ExcEduc 571(P), 588(C). Admis to post-bac cert prog or cons instr

576 Curriculum Accommodations III: Functional for Middle to High Students. 3 cr. U/G. Planning and scheduling for students with highly individualized goals, including school-to-work, while striving to integrate these goals into a well-coordinated program. Prereq: admis to Post-Bac cert prog or cons instr

579 Current Topics in Exceptional Education: (Subtitled). 1-3 cr. U/G. Specific topic announced in Timetable each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: jr st

580 An Overview of Child/Youth Care. 3 cr. U/G. Survey of skills, theories and approaches of the youth work field. Emphasis on interactive, developmental and relationship-building approaches in a variety of settings. Ed Pol/ExcEduc/Soc Wrk 580 are jointly offered & count as repeats of each other. Prereq: jr st or cons instr

581 Youth Work Practice. 3 cr. U/G. Applies the skills, theories and approaches of the youth work field to settings such as schools, community centers, and residential programs. Ed Pol/ExcEduc/Soc Wrk 581 are jointly offered & count as repeats of each other. Prereq: jr st; Ed Pol/ExcEduc/Soc Wrk 580(P); or grad st or cons instr

585 Supervised Practicum in Child and Youth Care. 2-4 cr. U/G. Supervised practicum in residential agencies and settings which utilize child and youth care workers and serve behaviorally, cognitively and/or physically disabled youth. Ed Pol/ExcEduc 585 are jointly offered & count as repeats of each other. Prereq: jr st; Ed Pol/ExcEduc/Soc Wrk 580(P), or grad st; cons instr

589 Workshop in Exceptional Education: (Subtitled). 1-6 cr. U/G. Variable content format examines assessment and/or methodological strategies appropriate for educators working with broad range of handicapped children and adolescents. May be retaken with change of topic to max of 6 cr. Prereq: jr st; cons instr or workshop dir

590 Microcomputers in Exceptional Education. 1-3 cr. U/G. Examination, application, and evaluation of software and adaptive equipment for use with children who have mild to severe handicapping conditions. Prereq: jr st; cons instr

600 Survey of Exceptional Education. 3 cr. U/G. History, theories, research, and practices related to individuals with learning, sensory, behavioral or physical handicapping conditions. Prereq: sr st & admis to School of Educ; or grad st

601 Behavioral Supports. 3 cr. U/G. Addresses needs of students with challenging behaviors. Emphasis on working collaboratively to conduct functional behavioral analysis. Prereq: admis to Post Bac Cert prog or cons instr

605 Child, Learner, Disabilities. 3 cr. U/G. Perspectives on disability; learning characteristics associated with disabilities; historical, legal and philosophical foundations; child mentoring and advocacy linked with a family-based practicum. Prereq: admis to Post-Bac Cert prog or cons instr

608 Multicultural Learning and Teaching in Special Education. 3 cr. U/G. Covers theoretical and practical applications of multicultural issues to learning and teaching in special education. Prereq: jr st

610 Survey of Learning Disabilities. 1 cr. U/G. History, theories, research and practices related to individuals with learning disabilities. Prereq: jr st & admis to Post-Bac Cert prog or cons instr; ExcEduc 300(P) or 600(P) or 605(P); or grad st

615 Cooperative Learning: An Approach to Effective Instruction. 3 cr. U/G. Techniques to disign and implement cooperative learning strategies for both exceptional and regular education students. Prereq: teaching certification or cons instr

616 Cooperative Learning: Advanced Skills. 3 cr. U/G. Review of basic cooperative learning elements. Techniques to integrate cooperative skills of communication, leadership, trust, and conflict resolution into cooperative lessons. Prereq: ExcEduc 615 & teacher certification or cons instr

617 Cooperative Learning: Creative Conflict. 3 cr. U/G. Review cooperative learning elements. Techniques to integrate controversy skills of negotiating, mediating and managing conflict and anger into academic lessons within cooperative learning goal structure. Prereq: ExcEduc 615 & teacher certification or cons instr

620 Survey of Emotional Disturbance. 1 cr. U/G. History, theories, research and practices related to individuals with emo-

tional disturbance. Prereq: jr st & admis to Post-Bac Cert prog or cons instr; ExcEduc 300(P) or 600(P) or 605(P); or grad st

621 Education of Children with Emotional Disturbance. 3 cr. U/G. Role of the teacher in the reeducation of the disturbed child; methods and materials; classroom management; evaluation. Prereq: ExcEduc 620; conc reg in practicum or cons instr

625 Alcohol and Other Drug Abuse and the Handicapped Student. 1-3 cr. U/G. Overview of chemical abuse in handicapped students which focuses on understanding the condition, reviewing identification, referral and treatment approaches and describing the responsibilities of educators. Prereq: sr st; ExcEduc 300 or 530 or 531

630 Survey Early Childhood Intervention: Young Chldren with Special Needs, Families. 3 cr. U/G. Introduction to etiology, historic background, current service provisions, and issues and trends as related to infants, toddlers, and preschoolers with disabilities and their families. Prereq: ExcEduc 300(P) or 600(P); jr st & admis to School of Educ or grad st

631 Methods for Teaching Commun Skills to Students with Severe Disabilities. 3 cr. U/G. Study of assessment, instructional, and augmentative techniques for teaching and providing communication (vocal and non-vocal) to students with severe disabilities. Prereq: sr st; ExcEduc 665(410)(P), ComsDis 240(P), or cons instr

633 Interdisciplinary Team Field Experience in Urban Settings. 2 cr. U/G. Field experience is designed to develop student's skills as members of interdisciplinary teams in urban community settings. Prereq: jr st; ExcEduc 634(C)

634 Collaborative Consultation and Teaming in Early Childhood Special Education. 1 cr. U/G. Focus on development of collaboration and consultation skills for professionals employed in interdisciplinary and interagency settings. Prereq: jr st; ExcEduc 633(C)

635 (735) Curriculum Accommodations I: Middle/High. 2 or 3 cr. U/G. Methods and strategies for teaching and evaluating adolescents with learning disabilities, emotional disturbance and mental retardation. Special emphasis given to individual educational programs. Prereq: jr st; admis to Post-Bac cert prog or cons instr; ExcEduc 487(C) & 587(C) or cons instr

636 (736) Curriculum Accommodations II: Adaptive - Middle/High. 2 or 3 cr. U/G. Methods and strategies for teaching and evaluating adolescents with learning disabilities, emotional disturbance and mental retardation. Special emphasis given to individual educational program. Prereq: jr st; admis to Post-Bac Cert prog or cons instr; ExcEduc 635(P); 488(C) & 588(C) or cons instr

640 Introduction to Individuals with Cognitive Disabilities. 1 cr. U/G. Introduction to etiology and social, educational, and vocational aspects of cognitive disabilities. Prereq: ExcEduc 300(P) or 600(P) or 605(P); jr st & admis to School of Educ; or grad st

644 Enhancing Literacy Learning for Diverse Learners: (Subtitled). 3 cr. U/G. Teaching reading and writing to diverse learners. Jointly offered with & subtitles count as repeat of same title of CurrIns 644. CurrIns 644 & ExcEduc 644 may be retaken with change of topic to combined 9 cr max. Prereq: currently teaching with at least 2 yrs experience; cons instr

647 Early Childhood Intervention Field Experience in Urban Settings: 0 to 3 Yrs. 3 cr. U/G. Practicum provides urban experiences in early intervention programs to develop teaching skills in birth to three. Prereq: jr st; ExcEduc 568(C)

648 Early Childhood Intervention Field Experience in Urban Settings: Preschool. 3 cr. U/G. Practicum provides urban teaching experiences in preschool programs to develop skills for working with 3-to-5 year olds with special needs and their families. Prereq: jr st; ExcEduc 647(P); 569(C)

649 Early Childhood Intervention Field Experience in Urban Settings: Primary. 3 cr. U/G. Practicum provides urban teaching experiences in primary school-age, programs to develop skills for working with 1st to 3rd graders with special needs and their families. Prereq: jr st; ExcEduc 648(P); 570(C)

651 Working With Families in Urban Communities I. 1 cr. U/G. First course of a two-part series for in-depth experiences with a family who has a young child with special needs. Prereq: jr st

652 (effective 01/24/2005) Developmental Evaluation of Young Children with Disabilities. 3 cr. U/G. The major functions of assessment used by Early Childhood Special Educators. Prereq: jr st; ExcEduc 651(P)

652 Developmental Evaluation of Young Children with Disabilities. 1 cr. U/G. The major functions of assessment used by Early Childhood Special Educators. Prereq: jr st; ExcEduc 651(P)

655 Introduction to Education of Individuals Who are Deaf and Hard of Hearing. 1 cr. U/G. Overview of educational programs and policies for pre K-12 students who are deaf and hard of hearing. Prereq: jr st

661 Exceptional Children and Their Families. 2 cr. U/G. Attitudes of teachers toward parents of exceptional children, the interviewing process, parent conferences, the effect of exceptional children on the family, and behavioral management in the home. Prereq: ExcEduc 300; cons instr; jr st & admis to School of Educ or grad st

662 (731) Collaborative Strategies. 3 cr. U/G. Provides the teacher with techniques that will assist in establishing relationships with other professionals, parents, and community agencies. Prereq: jr st; ExcEduc 300(P), 600(P), or 605(P); admis to Post-Bac Cert prog or cons instr

665 Language and Literacy for the Exceptional Student. 3 cr. U/G. An overview of the theoretical underpinnings for language and literacy practices, assessments, and methods of facilitating growth in students with exceptional education needs. Prereq: ExcEduc 300 or equiv; ComsDis 240; jr st & admis to School of Educ or grad st

670 Classroom Management: Students with Handicapping Conditions. 3 cr. U/G. A learning theory approach to the management of social and academic behavior of exceptional individuals. Emphasis on research and applied behavioral techniques for exceptional individuals. Requires direct interaction with students. Prereq: jr st & admis to School of Educ or grad st

671 Behavior Support & Intervention for Mid/High Students with Disabilities. 3 cr. U/G. Techniques in arranging aca-

demic and social environments for adolescents having learning and social problems. Prereq: admis to Middle/High prog; cons instr

672 Teaching Social Skills to Students with Disabilities. 3 cr. U/G. Teaching social skills to students with disabilities including direct instruction, cognitive interpersonal problem solving. Reviews related theory, methodology, instructional materials, research. Prereq: jr st; ExcEduc 670(P) or equiv

675 Learning Strategies I: Cognitv,Metacognitv Intrvntns-Mildly Hndicppd Stdnts. 3 cr. U/G. Understanding, application and evaluation of learning strategies for use with adolescents with mild handicaps. Prereq: jr st; cons instr or teacher certification

676 Learning Strategies II: Cognitv/Metacognitv Intervntns-Mild Hndicppd Stdnts. 3 cr. U/G. Indepth analysis of strategy instruction for use with adolescents with mild handicaps. Prereq: jr st; ExcEduc 675; cons instr; teacher certification

679 Critical Issues in Transition Planning for Students with Disabilities. 3 cr. U/G. Understanding transition planning and tools to effectively assist students with disabilities in the transition process. Counts as repeat of ExcEduc 589 with similar topic. Prereq: jr st

680 Literacy I. 3 cr. U/G. Observing and assessing reading and writing; implementing basic strategies toward supporting reading and writing development; becoming a motivated reader/writer. Prereq: admis to the Post-Bac Cert prog or cons instr

681 Literacy II. 3 cr. U/G. Organizing and implementing literacy instruction. Addressing the individual strengths and needs in communication of students with disabilities. Prereq: ExcEduc 680(P); admis to the Post-Bac Cert prog or cons instr

684 Multisensory Structured Language Teaching. 3 cr. U/G. Advanced study of dyslexia and how to implement remedial approaches to literacy. Includes a required practicum experience. Prereq: Post-bac status or cons instr

689 Workshop in Curricula Implementation of Research in Exceptional Education. 1-6 cr. U/G. Research and methodology for exceptional education classroom application for students enrolled in a workshop course coordinated by the department of exceptional education. May be repeated. Prereq: sr st or cons instr

699 Independent Reading. 1-3 cr. U/G. - Prereq: jr st & admis to School of Educ or grad st; cons instr

703 Vocational Aspects in Rehabilitation and Exceptional Education. 3 cr. G. Disability and case management practices for severely disabled persons. Emphasis on return-to-work interventions: vocational evaluation, work adjustment, job placement, accommodation, ergonomics. Jointly offered with & counts as repeat of Couns 703. Prereq: grad st; ExcEduc 679(P) or Couns 601(C)

705 Understanding Culture and Ethnicity in the Transition Process. 3 cr. G. This course will provide an overview of the importance of culture & ethnicity in the transition process for students with disabilities. Prereq: grad st; ExcEduc 679(P); cons instr

707 Infusing Socio-Sexual Issues into Transition Planning. 3 cr. G. This course is designed to discuss socio-sexual issues & facilitate participants' development of skills needed to infuse socio-sexual issues into transition planning. Prereq: grad st; ExcEduc 679(P); cons instr

708 Student, Family & Community Involvement in the Transition Planning Process. 3 cr. G. This course is designed to explore trends & strategies relative to the development of self determination skills, person-centered planning & educators as consultants in transition planning. Prereq: grad st; exceduc 679(P); cons instr

715 Issues and Trends in Exceptional Education. 3 cr. G. Designed for students with entry level experience in exceptional education, the course reviews the exceptional education populations, methodology and current issues and trends. Prereq: grad st; ExcEduc 300 or equiv or cons dept

725 Personal-Social Assessment of Individuals with Exceptional Education Needs. 3 cr. G. Principles and practices of social assessment for individuals with exceptional education needs. Prereq: grad st; ExcEduc 750; or cons instr

730 Assistive and Instructional Technology for Students with Disabilities. 3 cr. G. Introduction to special education technology emphasizing applications for students with disabilities and their teachers. Prereq: grad st

735 Technology & Instruction for Students with Disablities. 3 cr. G. Curriculum intergration models and technology integration strategies for enhancing educational outcomes of students with disabilties. Prereq: grad st

750 Diagnostic Procedures for Exceptional Individuals. 3 cr. G. Theory and procedures of diagnostic evaluation of individuals with exceptional education needs. Interpretation of data related to education and remediation. Prereq: grad st; ExcEduc 610 or 620 or 640 or 650; cons instr

756 Field Work with the Deaf and Hard of Hearing II. 1-6 cr. G. - Prereq: grad st & cons instr

760 Problems in Curriculum Development - Exceptional Children. 3 cr. G. Emphasis on principles and procedures involved in curriculum development and the improvement of classroom instruction through consideration of multiple approaches to teaching methodology. Prereq: grad st & cons instr

765 Assistive Technology Service Delivery in Schools. 3 cr. G. Introduction to legal, legislative, and policy foundations guiding the creation and delivery of assistive technology services in schools, clinics and agencies. Prereq: grad st

771 Field Work with Students Having Exceptional Education Needs. 3 or 6 cr. G. - ExcEduc 771 may be repeated to max of 9 cr. Prereq: grad st & cons dept

772 Field Work with Students Having Hearing Impairments. 3 or 6 cr. G. - ExcEduc 772 may be repeated to max of 9 cr. Prereq: grad st & cons dept

773 Field Work with Students Having Cognitive Disabilities. 3 or 6 cr. G. - ExcEduc 773 may be retaken to max of 9 cr. Prereq: grad st & cons dept

774 Field Work with Students Having Severe Handicaps. 3 or 6 cr. G. - May

be repeated to max of 9 cr. Prereq: grad st & cons dept

775 Field Work with Students Having Emotional Disturbance. 3 or 6 cr. G. - ExcEduc 775 may be repeated to max of 9 cr. Prereq: grad st & cons dept

776 Fieldwork with Students Having Early Childhood-Exceptional Education Needs. 3 or 6 cr. G. - ExcEduc 776 may be repeated to max of 9 cr. Prereq: grad st & cons dept

777 Fieldwork in Assistive Technology. 1-6 cr. G. Provides students with a school- or clinic-based experience in the delivery of assistive technology services. ExcEduc 777 & OccThpy 777 are jointly offered; they count as repeats of one another. May be retaken for 9 cr max. Prereq: grad st & cons instr

778 Field Work with Students Having Learning Disabilities. 3 or 6 cr. G. - ExcEduc 778 may be repeated to max of 9 cr. Prereq: grad st & cons dept

779 Current Topics in Exceptional Education. (Subtitled). 1-3 cr. G. Specific topic announced in schedule of classes each time course is offered. Prereq: grad st; cons instr

780 Internship in Special Education Administration. 3 or 6 cr. G. Students will work with selected administrators in the field of special education administration. Prereq: grad st; cons instr

790 Administration of Pupil Services. 3 cr. G. Review and analysis of pupil service programs in K-12 education, considers historical, legal and professional proactive standards. Prereq: grad st; Ad Ldsp 710(P), 752(P); cons instr

799 Independent Reading. 1-3 cr. G. - Prereq: grad st; cons instr

801 Urban Education: Doctoral Seminar in Exceptional Education. 3 cr. G. Examination of research on exceptional education in urban settings including topics related to students in general and special education environments. Prereq: grad st; admis to urban educ doctoral prog; Educ 701

805 Legislative and Legal Aspects of Exceptional Education. 3 cr. G. Legislative and legal factors involved in educating individuals with handicapping conditions. Prereq: grad st; ExcEduc 600

815 Capstone Course In Special Education. 3 cr. G. Culmination of course work during the graduate program leading to the development of the thesis or graduate project. Prereq: grad st; ExcEduc 715(P)

845 Field Work with Adolescents Having Special Learning Problems. 1-6 cr. G. - Prereq: grad st; cons dept

861 (effective 01/24/2005) Foundations in Student Services and Special Education Administration. 3 cr. G. Sets the foundation for leadership in special education and student services in the context of integrated comprehensive services and student diversity. Prereq: grad st

880 Proseminar in Urban Education: Exceptional Education. 2 cr. G. An examination of selected problems and issues in urban education. Prereq: grad st; admis to urban educ doctoral prog

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr will be assessed. Prereq: grad st

900 Seminar: Urban Issues in Exceptional Education. 3 cr. G. Analysis of societal forces affecting special education, teachers, and pupils in an urban environment. Emphasis on social-political-economic and human-relations factors operant in special education programs. Prereq: grad st; cons instr

915 Seminar: Social Impact of Learning, Behavioral and Cognitive Disorders. 2 cr. G. The effects of learning disorders on the interactional behavior of individuals in the community environment: the home, the schools, the courts. Prereq: grad st; ExcEduc 300 or 600

950 Seminar: Research on Mental Retardation. 3 cr. G. Review of literature in mental retardation. Evaluation of recent research. Prereq: grad st; ExcEduc 640

953 Semnr-Resrch on Early Intrvntn: Infnts/Young Chldrn w/Spcl Needs & Families. 3 cr. G. Analysis of research and contemporary issues in early intervention for infants, toddlers, and preschoolers with special needs and their families. Prereq: grad st; ExcEduc 630 or 640 or cons instr

955 Seminar: Research on Students with Severe Handicaps. 3 cr. G. Analysis of the contemporary issues and treands in the field of the education of students with severe handicaps. Prereq: grad st; ExcEduc 556 or cons instr

958 Seminar in Research on Language and Learning Disabilities. 3 cr. G. Comprehensive review of literature in language and learning disabilities. Intensive evaluation of recent research. Prereq: grad st; ExcEduc 610

960 Seminar: Administration/Supervision of Programs for Exceptional Individuals. 3 cr. G. Administration, supervision, philosophy, organization, and federal and state legislation affecting individuals with handicapping conditions. Prereq: grad st; ExcEduc 300 or 600

961 (effective 01/24/2005) Advanced Analysis and Design of Student Service and Special Education Administration. 3 cr. G. Advanced analysis and design of organization and leadership of integrated comprehensive servcies for all learners. Prereq: grad st; ExcEduc 861(P)

965 Seminar: Research on Emotional Disturbance. 3 cr. G. Review of literature on behavioral problems of children and adolescents. Emphasis on theoretical models and their application to education. Prereq: grad st; ExcEduc 620

970 Seminar: Research on Individuals With Handicapping Conditions. 3 cr. G. Recent research relevant to individuals with handicapping conditions. Prereq: grad st; ExcEduc 300 or 600

975 Seminar: Research on Individuals with Hearing Impairments. 3 cr. G. Review of literature on hearing impairments and education of individials with hearing impairments. Evaluation of recent research. Prereq: grad st; ExcEduc 650

990 Research or Thesis. 1-6 cr. G. - Prereq: grad st & cons instr

999 Independent Reading. 1-3 cr. G. For benefit of superior graduate students unable to secure needed content in regular courses. Prereq: grad st; cons instr

Cross-listed Course

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Exceptional Education.

Library and Information Science 801 Issues in Education & Information Technology. 3 cr, G.

FILM STUDIES

College of Letters and Science

Request Information On-Line

Courses

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

700 Teaching Film Studies. 3 cr. G. Theory of and approaches to teaching film studies on the college level. Prereq: grad st

FOREIGN LANGUAGE AND LINGUISTICS

College of Letters and Science

Request information on-line

Courses

Foreign Languages/Linguistics (FLL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

525 Business and Professional Aspects of Translation. 3 cr. U/G. Practical knowledge needed to succeed as freelance or in-house translators; marketing, advertising, negotiating as well as legal and tax issues. Prereq: jr st; French 425(P), German 425(P), or Spanish 347(P)

FINE ARTS

Request information on-line

Courses

Fine Arts-Interdepartmental (FINEART)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

311 Spatial Interactivity I. 3 cr. U/G. Introduction to the creation of interactive spatial installation and sculptural works. Students work with sensors, video, audio and kinetic elements to create interactive systems. Prereq: jr st, admis to DIVAS Prog or to Visual Art prog, & Art 118(P); or grad st; or cons instr

313 Programming for Artists I. 3 cr. U/G. An introduction to principles and applications of computer programming languages within art practice. Prereq: Jr st, admis to DIVAS prog or to Visual Art prog, & Art 118(P); or grad st; or cons instr

315 Scripted Interactivity I. 3 cr. U/G. An introduction to the production and evaluation of screen based interactivity. Techniques can include Flash Action Scripting, Lingo, Javascript, DHTML, etc. Prereq: jr st, admis to DIVAS prog or to Visual Art prog, & Art 118(P); or grad st; or cons instr

319 Gizmology I. 3 cr. U/G. Introduction to concrete computing for artists, including robotics, interactive systems, basic programming, and soldering/assembly. Emphasis on production of object oriented art. Prereq: Jr st, admis to DIVAS prog or to Visual Art prog, & Art 118(P); or grad st; or cons instr

351 Digital Media Workshop: (Subtitled). 3 cr. U/G. A short-term, concept oriented workshop in digital media. Retakeable with topic change to 6 cr max. Prereq: jr st, & admis to DIVAS prog or to Visual Art prog; or grad st; or cons instr

411 Time Space II. 3 cr. U/G. Advanced temporal and spatial structures as applied to art practice. Prereq: jr st, Fine Art 211(P); or grad st; or cons instr

489 Fine Arts Workshop I: (Subtitled). 1-6 cr. U/G. Project-oriented course of variable content and duration, focusing around special aspects of art, dance, film, music and theatre. An interdisciplinary approach will be used. May be repeated with change in topic to max of 9 cr. Prereq: jr st; cons instr

511 Spatial Interactivity II. 3 cr. U/G. Advanced course focusing on interactive spatial installation and sculptural works. Work with sensors, video, audio and kinetic elements to create interactive systems. Prereq: jr st, admis to DIVAS prog or to Visual Art prog, & Fine Art 311(P); or grad st; or cons instr

513 Programming for Artists II. 3 cr. U/G. Advanced principles and applications of computer programming languages within art practice. Prereq: Jr st, Fine Art 313(P); or grad st; or cons instr

515 (effective 01/24/2005) Scripted Interactivity II. 3 cr. U/G. Advanced course focusing on the production and evaluation of screen based interactivity. Techniques can include Flash Action Scripting, Lingo, Javascript, DHTML, etc. Prereq: jr st, admis to DIVAS prog or to Visual Art prog, & Fine Art 315(P); or grad st; or cons instr

551 Advanced Digital Media Workshop: (Subtitled). 3 cr. U/G. A short-term, concept oriented workshop in digital media. May be retaken with change in topic to 6 cr max. Prereq: jr st, Fine Art 351(P); or grad st; or cons instr

553 Advanced Digital Media Seminar: (Subtitled). 3 cr. U/G. Topics and critical issues centering on science and technology within the field of contemporary art. Student research and written/oral reports required. May be retaken with change in topic to 6 cr max. Prereq: jr st, & admis to DIVAS prog or to Visual Art prog; or grad st; or cons instr

589 Fine Arts Workshop II: (Subtitled). 1-6 cr. U/G. Advanced project-oriented course, of variable content and duration, focusing around special aspects of art, dance, film, music and theatre. An interdisciplinary approach will be used. May be repeated with change in topic to max of 9 cr. Prereq: jr st; writ cons instr

599 (effective 09/06/2005) Arts Internship. 1-6 cr. U/G. Internships in the arts at museums and galleries; dance, theatre, and production companies; design and advertising firms; government agencies; non-profit organizations; professional artist studios. May be retaken to max of 9 cr. Prereq: jr st; cons instr

FOREIGN LANGUAGE AND LITERATURE

College of Letters and Science

Degree Conferred: MA in Foreign Language and Literature
Phone: (414) 229-5378
FAX: (414) 229-2741
E-mail: mafll@uwm.edu
Web site: www.uwm.edu/Dept/MAFLL

The Departments of Foreign Languages and Linguistics, of French, Italian and Comparative Literature, and of Spanish and Portuguese — under the guidance of a Coordinating Committee — cooperate in offering an interdepartmental, interdisciplinary master's program designed for the student who wishes to focus on language and literature as areas of study broader than national or linguistic borders and to study language and literature on a cross-cultural basis. Students may complete one of the following concentrations: Classical Greek; Classics; Comparative Literature; French and Francophone Language, Literature, and Culture; German Language, Literature, and Culture; Latin; Linguistics; Spanish and Hispanophone Language, Literature, and Culture; and Translation. In addition to these specific concentrations, students may pursue course work in Hebrew Studies, Italian Studies, and Slavic Languages.

Inquiries concerning this program should be directed to the Coordinator of the Foreign Language and Literature program.

Graduate Faculty

Arabic

ASSISTANT PROFESSOR

Seymour-Jorn, Caroline, Ph.D., University of Chicago

Classics

PROFESSORS

Monti, Richard C., Ph.D., Harvard University
Mulroy, David D., Ph.D., Stanford University

ASSISTANT PROFESSOR

Muse, Kevin, Ph.D., University of North Carolina

Comparative Literature

DISTINGUISHED PROFESSOR

Gallop, Jane, Ph.D., Cornell University

PROFESSORS

Baldassaro, Lawrence, Ph.D., Indiana University
Pickering-Iazzi, Robin, Ph.D., University of Washington
Verdier, Gabrielle, Ph.D., Yale University

ASSISTANT PROFESSORS

Alkhas, Anita, Ph.D., Michigan State University
Bolduc, Michelle, Ph.D., University of Oregon
Paik, Peter, Ph.D., Cornell University
Pitt, Kristin, Ph.D., University of Wisconsin - Madison
Xu, Jian, Ph.D., University of Iowa

French

PROFESSORS

Ciccone, Anthony, Ph.D., State University of New York-Buffalo
Verdier, Gabrielle, Ph.D., Yale University

ASSOCIATE PROFESSOR

Mileham, James W., Ph.D., University of Wisconsin-Madison

ASSISTANT PROFESSORS

Alkhas, Anita, Ph.D., Michigan State University
Kuiper, Lawrence, Ph.D., Michigan State University
Terando, Lorena, Ph.D., State University of New York-Binghamton

German

PROFESSOR

Schwertfeger, Ruth, B. Litt., Oxford University

ASSOCIATE PROFESSOR

Davis, Garry W., Ph.D., University of Michigan

ASSISTANT PROFESSORS

Schueller, Jeanne, Ph.D., University of Wisconsin - Madison
Watson, Jennifer, Ph.D., University of Illinois, Urbana - Champaign

Hebrew Studies

PROFESSOR

Mazor, Yair, Ph.D., Tel Aviv University

Italian

PROFESSORS

Baldassaro, Lawrence, Ph.D., Indiana University
Pickering-Iazzi, Robin, Ph.D., University of Washington

Linguistics

PROFESSORS

Eckman, Fred R., Ph.D., Indiana University
Iverson, Gregory K., Ph.D., University of Minnesota
Moravcsik, Edith, Ph.D., Indiana University
Vaux, Bert, Ph.D., Harvard University

ASSISTANT PROFESSOR

Chen, Yea-Fen, Ph.D., Indiana University

Slavic Languages

PROFESSOR

Mikos, Michael J., Ph.D., Brown University

PROFESSOR

Marquez, Ismael, Ph.D., University of Texas-Austin

ASSOCIATE PROFESSORS

Giersbach Rascon, Susan, J.D., Marquette University
Wheatley, Kathleen, Ph.D., University of Michigan

ASSISTANT PROFESSORS

Crosby, Margaret, Ph.D., University of New Mexico
Kennedy, Bryan, Ph.D., University of North Carolina-Chapel Hill
McCaw, John, Ph.D., Princeton University

Master of Arts in Foreign Language and Literature

Admission
An applicant must meet Graduate School requirements plus these program requirements to be considered for admission to the program:

- An undergraduate major in a language other than English, or in linguistics; or an undergraduate major in comparative literature that included advanced study of a language other than English; or a combination of courses considered by the Coordinating Committee as adequate preparation to gain linguistic competence in the major language; or immersion experience; or native fluency; or, for the Translation Track, demonstrated competence on a qualifying examination.

- Submission to the MAFLL Program of three letters of recommendation, at least two of which should be from instructors acquainted with the student's work.

Applicants who meet general Graduate School requirements (an undergraduate grade point average of at least 2.75) and the above program requirements may be admitted in good standing.

Upon recommendation of the Coordinating Committee, an applicant lacking in course background may be admitted with specified deficiencies in the above on the condition that the deficiencies be made up by the end of the first full semester (9-12 credits). Credits earned in making up deficiencies do not count toward the degree. If an applicant furnishes substantial evidence of capacity to do satisfactory graduate work despite a deficiency in GPA on admission, probationary admission may be recommended.

Transfer of Credits
Any course submitted for transfer must be no more than five years old at the time of the student's admission to the MAFLL Program, must have been taken at the graduate level in a recognized institution, and must have been completed with a grade of B or better. Since Graduate School regulations allow the transfer of only 12 non-degree graduate credits to a master's program, students are advised to apply for degree candidacy in the MAFLL program before completion of 12 credits of course work.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations.

The Coordinating Committee refers each incoming student to a temporary advisor, normally the Graduate Advisor in the student's chosen concentration, as stated in the application. The Graduate Advisor assists in assessing the student's competencies, interests, and future academic or professional needs. Normally, the Graduate Advisor recommends a Major Professor after his/her initial meeting with the student.

The Major Professor and the student establish a plan of study by the end of the student's first semester of graduate work. The plan will be reviewed by the Major Professor and the student after the successful completion of 12 credits and the removal of any deficiencies that may have been assessed at admission. At the time of the review, the student may request another Major Professor in the event that his/her programmatic needs have been modified or altered. Subsequent minor changes must be approved by the Major Professor.

The Major Professor evaluates and updates the student's progress after completion of every six (6) credits or every semester of subsequent work. The student may not register for any courses without this advisor's prior approval.

Credits and Courses
No credits carrying a grade below B- may be counted toward meeting the MAFLL degree requirement of 30 credits.

The MAFLL degree offers two tracks: the Standard Track within which students may complete one of eight concentrations and the Translation track, which will be designated as a concentration on the student's transcript. Students are not obligated to elect a concentration, but many will find it beneficial to do so. They also have the option of completing two concentrations, but, in doing so, students must complete all requirements for each concentration and a minimum of 36 credits for the degree.

Standard Track
Thirty graduate credits are required, 6 of which must be in core seminars in the Foreign Language, Literature, and Linguistics areas. The student develops a program of study in consultation with the Major Professor, normally including the following:

1. Two core seminars as a foundation in basic aspects of languages, literatures, and linguistics.

2. Five to eight courses in a language, literature, or linguistics area to permit concentration in the student's major area of interest.

3. Up to three courses in related areas to give the program breadth.

The following are the minimum course requirements for a concentration within the Standard Track:

Classical Greek: at least 15 graduate credits in Greek
Classics: at least 18 credits of graduate level course work consisting of an equal number of credits in classical Greek and in Latin
Comparative Literature: at least 15 graduate credits in Comparative Literature
French and Francophone Lan-

guage, Literature, and Culture: at least 15 graduate credits in French
German Language, Literature, and Culture: at least 15 graduate credits in German
Latin: at least 15 graduate credits in Latin
Linguistics: the two core seminars selected from Linguis 708(701), MAFLL 706, CurrIns 800, and Philos 681; five courses in Linguis, including 460, 464, and three additional linguistics courses in or outside the Department of Foreign Languages and Linguistics; 9 cr electives selected in consultation with the student's advisor (may include up to 6 cr in MAFLL 790 Thesis)
Spanish and Hispanophone Language, Literature, and Culture: at least 15 graduate credits in Spanish

Translation Track
Thirty graduate credits are required, distributed as indicated below. Students may not count credits earned as advanced undergraduates in the Translation Certificate Program toward the MAFLL degree. Admission is based in part on a qualifying examination that is consistent with examinations used by the American Translation Association, and is administered by the coordinator and the appropriate member of the translation program coordinating committee.

CORE COURSES (9 credits)

MAFLL 709 Seminar in Literary and Cultural Translation, 3 cr
MAFLL 726 Computer-Assisted Translation, 3 cr (title change in progress)
CompLit 820 Translation Theory, 3 cr

LANGUAGE-SPECIFIC COURSES (9 credits) - select one of the following concentrations:

French
French 425 Introduction to Translation
French 450 Institutions and Culture of Contemporary France
French 526 Seminar in Advanced Translation
German
German 425 Introduction to Translation
German 461 German for Professional Purposes
German 525 Seminar in Advanced Translation
Spanish
One of:
Spanish 347 Introduction to Translation: Spanish to English
Spanish 348 Introduction to Translation: English to Spanish
and both:
Spanish 447 Seminar in Advanced Spanish Translation
A graduate course in Hispanic, Spanish, or Spanish-American culture
Work in other languages may be possible, depending upon the availability of faculty for language-specific independent study, with the approval of the coordinator.

REQUIRED PRACTICAL EXPERIENCE (3 credits)

MAFLL 730 Translation Internship
ELECTIVES (9 credits) . select any of the following courses:
English 434 Editing and Publishing
English 439 Document Design
English 708 Advanced Professional Writing
English 709 Rhetoric, Writing and Information Technology
FLL 525 Business and Professional Aspects of Translation
Linguis/MAFLL 708(701) Proseminar in Linguistics
Spanish 347 Introduction to Translation: Spanish to English, if not taken as a language-specific course (see above)
Spanish 348 Introduction to Translation: English to Spanish, if not taken as a language-specific course (see above)
Spanish 349 Introduction to Interpreting
Spanish 449 Advanced Court Interpreting
A course in the student's area of translation specialization, 3 cr
Translation course(s) in another language, 3-6 cr
Students in the Spanish concentration may apply Spanish 349 and either 347 or 348 (whichever is not a required course in the student's concentration) to the electives requirement.

Thesis
Up to 6 graduate credits may be earned by presentation of a satisfactory thesis. The student's Major Professor, in consultation with the student, will recommend the names of a Thesis Director and two readers who, upon approval by the Coordinating Committee, will constitute the ad hoc Thesis Committee. The thesis option is not available to students in the translation track.

Comprehensive Examination
The student must pass both written and oral examinations, prepared and administered by an Examining Committee. The composition of the committee is approved by the Coordinating Committee. If the student fails the examination, s/he may repeat it once, but no sooner than three months from the date of the first examination.

Comparative Literature students must demonstrate a reading knowledge of a second language other than English prior to taking their Comprehensive Examinations. Reading knowledge may be demonstrated by coursework in the specific language program or by written examination, to be determined with the Major Professor.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

MAFLL/MLIS Coordinated Degree Program

In cooperation with the School of Information Studies, MAFLL offers a MAFLL/MLIS program to prepare students for specialized positions in libraries. Students enrolled in this program will concurrently pursue a MA degree in Foreign Language and Literature and a MLIS degree. Candidates for the coordinated degree program will be expected to fulfill the degree requirements of both graduate programs. Degrees will be awarded simultaneously.

Students interested in the MAFLL/MLIS program will be expected to follow all of the requirements and standards as described in this section of the Bulletin. Nine of the 30 credits normally required for a MAFLL degree will be satisfied by courses taken in SOIS. In the coordinated degree program, MAFLL thesis option credits will be in addition to the 21 required MAFLL credits. Courses in related areas must be approved by the Coordinator of MAFLL.

Certificate in Translation

The Certificate in Translation offers professional training to students in French, German and Spanish who wish to pursue careers in translation or in areas of government or business requiring professional use of a language other than English.

Applicants to the Certificate Program must hold a bachelor's degree with an overall GPA of 2.75 or must provide substantial evidence of ability to succeed in graduate level work. They may apply to the Graduate School as candidates for the Translation Certificate in non-degree status or pursue the Certificate while enrolled in another graduate program. Certificate coursework may be applied toward an MA degree in the MAFLL Program. Required foundation coursework may be taken at the undergraduate or graduate level, but no work taken at the undergraduate level may count toward the MA degree.

A degree in the foreign language of concentration, or advanced study in that area, is desirable. In addition, admission to the program is based in part on a proficiency examination administered by the Program coordinator and an appropriate member of the Advisory Committee. The two-hour exam consists of a 300-word translation from the source to the target language and one 150-word essay in the target language.

Program Requirements
Students must complete 12 credits of foundation courses (as U or G) and 12 credits of graduate credits in required certificate courses. Students must earn at least a 3.0 GPA in the 12 credits of certificate courses and a 3.0 GPA in foundation courses (U and G) and certificate courses combined.

Foundation Courses, 12 credits
Foundation courses offer the background necessary to pursue the Certificate. They may be taken at either the undergraduate or graduate level. If taken at the graduate level, they count in the Certificate GPA.

a) Language-Specific Courses (9 credits)
Students who wish to concentrate in more than one language must take the language-specific courses for all languages in which they seek to earn the certificate. The certificate may be available in languages other than French, Spanish, and German, if faculty are available for language-specific independant study and the coordinator approves.

French 425 Introduction to Translation, 3 cr
French 526 Seminar in Advanced Translation, 3 cr
French 450 Institutions and Culture of Contemporary France, 3 cr
OR
German 425 Introduction to Translation, 3 cr
German 526 Advanced German Stylistics, 3 cr
German 411 Modern Day Germany, 3 cr
OR
Spanish 347 Introduction to Translation, 3 cr
Spanish 447 Seminar in Advanced Translation, 3 cr
A U or G course in Hispanic, Spanish, or Spanish-American Culture, 3 cr

b) One of the following electives, selected in consultation with the Program coordinator (3 credits):

English 434 Editing and Publishing, 3 cr
English 439 Document Design, 3 cr
English 708 Advanced Professional Writing, 3 cr
English 709 Rhetoric, Writing and Information Technology, 3 cr
FLL 525 Business and Professional Aspects of Translation, 3 cr
Spanish 349 Introduction to Interpreting, 3 cr
Spanish 449 Advanced Court Interpreting, 3 cr
One course in student's area of translation specialization, 3 cr
One translation course in another language, 3 cr

Required Certificate Courses, 12 credits

a) Required core courses (6 credits):

MAFLL 709 Seminar in Literary and Cultural Translation, 3 cr
MAFLL 726 Terminology Management and Computer Use in Translation, 3 cr

b) One of the following electives, not taken above as a foundation course (3 credits):

English 434 Editing and Publishing, 3 cr
English 439 Document Design
English 708 Advanced Professional Writing, 3 cr
English 709 Rhetoric, Writing and Information Technology 3 cr
FLL 525 Business and Professional Aspects of Translation, 3 cr
Linguistics 701 Proseminar in Linguistics, 3 cr
Spanish 349 Introduction to Interpreting, 3 cr
Spanish 449 Advanced Court Interpreting, 3 cr
One course in student's area of translation specialization, 3 cr
One translation course in another language, 3 cr

c) Required practical experience (3 credits):

MAFLL 730 Translation Internship, 3 cr

MA Option in MAFLL:
The Certificate Program in Translation includes 12-15 credits in U/G courses and 9-12 credits in G-only courses. Students who have completed the certificate requirements (12 credits in foundations, 12 credits in program requirements) for G credit and who have been accepted into the MAFLL Program can earn an MA with a concentration in French, German, or Spanish translation by completing 6 additional credits and passing a comprehensive examination. Fifteen credits in G-only courses are required for an MA in the MAFLL program (30 credits total). For the MA, the following additional courses are required:

CompLit 820: Translation Theory
One course in the student's language/literature area, 3 cr, U/G or G, depending if the student needs an additional G-only course to meet the 15 credit minimum.

Since Graduate School regulations allow the transfer of only 12 non-degree graduate credits to a master's program, students are advised to apply for degree candidacy in the MAFLL program before completion of 12 credits of coursework toward the Certificate.

Courses

M.A. in Foreign Language & Lit (MAFLL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

702 Seminar in Literary Forms: (Subtitled). 3 cr. G. Study of specific forms and genres (narrative, epic, lyric, dramatic, etc) stressing the effects of compositional patterns and expressive modes on the representation of content. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons MAFLL coord comm chair

703 Seminar in Language and Communication: (Subtitled). 3 cr. G. Survey of basic theories on the nature of language and of the modes of verbal communication, with emphasis on the sociocultural aspects. Prereq: grad st; cons MAFLL coordinator; proficiency in a language other than english

704 Seminar in Cultural Studies: (Subtitled). 3 cr. G. Investigation of cultural phenomena in their socio-historical contexts and in their symbolization in folklore, literature, and art. Specific topics and any additional prereqs announced in the Timetable each time course is offered. CompLit 704 & MAFLL 704 are jointly offered; they count as repeats of one another. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons MAFLL coord comm chair

706 Seminar in Foreign Language Methodology and Pedagogy. 3 cr. G. Introduction to the nature and direction of recent developments in foreign language methodology and instructional principles. Includes practicum. Prereq: grad st; cons MAFLL coord comm chair; conc reg in practicum (French/German/Spanish 706) required of all TAs

707 (701) Seminar in Methods of Literary Analysis: (Subtitled). 3 cr. G. Two or more theoretical and methodological approaches to literature, with application to selected literary texts. Specific topics and any additional prerequisites announced in Timetable each time course is offered. CompLit 707 & MAFLL 707(701) are jointly offered; they count as repeats of one another. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons MAFLL coord comm chair

708 (Linguis 701) Proseminar in Linguistics. 3 cr. G. Presents a range of linguistic constructs, demonstrating through readings, problems, and exercises how these concepts can be used in the analysis of language. Linguis 708(701) & MAFLL 708 are jointly offered; they count as repeats of one another. Prereq: grad st

709 Seminar in Literary and Cultural Translation. 3 cr. G. Study and practice of literary translation in its cultural setting. Discussion of essays, analysis of published translations, translation practice, and collegial discussion of students' work. Prereq: grad st

712 Bibliographic and Research Methodology in Foreign Language and Literature. 1 cr. G. Discussion of types of research in languages and literatures, bibliographic resources and sources of research support. Prereq: grad st; cons FLL coord comm chair

713 Literary Interpretation in a Foreign Language. 1 cr. G. Discussion of issues in the study of literature in a foreign language. Prereq: grad st; cons FLL coord comm chair

721 The Old Testament in Literature and the Arts. 3 cr. G. The impact of the Old Testament on literature and the arts; its influence on major subsequent reliqious classics and through them on music, philosophy, and the visual arts. Prereq: grad st

725 Computers in Language and Literature Research. 3 cr. G. Discusses the scope of linguistic and literary computing, available package programs and the suitability of various computer languages. Offers hands-on programming. Prereq: grad st; CompSci 151 or equiv

726 Computer-Assisted Translation. 3 cr. G. How computer technology can be combined with human skills for language translation through the automation of data storage, file analysis, data application and retrieval. Prereq: grad st; French 526(C), German 525(C), or Spanish 447(C)

728 Literary Translation. 3 cr. G. Seminar in literary translation focusing on various genres including prose, poetry, essays, and theater; publication and copyright matters. Prereq: grad st; admission to Translation Program

730 (705) (effective 01/24/2005) Internship in Translation. 3 cr. G. Internship offering on-the-job experience to students in the graduate certificate program in translation. Retakable to 6 cr max. Prereq: MAFLL 726(P); French 526(P), German 525(P), Spanish447(P), or Spanish 448(P)

730 (705) Internship in Translation. (Subtitled). 3 cr. G. Internship offering on-the-job experience to students in the graduate certificate program in translation. Retakable to 6 cr max. Prereq: 9 cr GCPT core courses; 9 cr GCPT language-specific courses; 3.0 GPA in GCPT courses

740 Backgrounds of Modernism I: 1750-1914. 3 cr. G. Seminar on the major figures and intellectual forces that have shaped the history of modernism, from the 19th century to approximately the end of World War I. English 740, Hist 740, & MAFLL 740 are jointly offered; they count as repeats of one another. Prereq: grad st

741 Backgrounds of Modernism II: The Twentieth Century. 3 cr. G. Seminar on major figures and intellectual forces that have shaped the history of modernism and postmoderism from the end of World War I through the present. English 741, Hist 741 & MAFLL 741 are jointly offered; they count as repeats of one another. Prereq: grad st

781 Graduate Study Abroad: Language and Culture. (Subtitled). 1-3 cr. G. Coursework in a foreign language or culture taken in a UWM exchange program at a foreign university; subject to review and evaluation of the MAFLL program faculty. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons MAFLL coord comm chair

782 Graduate Study Abroad: Pre-1900 Literature. (Subtitled). 1-3 cr. G. Coursework in pre-1900 literature taken in a UWM exchange program at a foreign university; subject to review and evaluation of the MAFLL program faculty. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons MAFLL coord comm chair

783 Graduate Study Abroad: Post-1900 Literature. (Subtitled). 1-3 cr. G. Coursework in post-1900 literature taken in a UWM exchange program at a foreign university; subject to review and evaluation of the MAFLL program faculty. Re-

takable w/chg in topic to 9 cr max. Prereq: grad st; cons MAFLL coord comm chair

790 Thesis. 1-3 cr. G. Independent study and research on a master's thesis under supervision of the student's advisory committee. Retakable to 6 cr max. Prereq: grad st; cons advisory committee

791 Reading and Research - Greek or Latin. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

792 Reading and Research - Comparative Literature. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

793 Reading and Research - French or Italian. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

794 Reading and Research - German. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

795 Reading and Research - Hebrew or Arabic. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

796 Reading and Research - Language. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

797 Reading and Research - Polish or Russian or Serbo-Croatian. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

798 Reading and Research - Spanish or Portuguese. 1-3 cr. G. Reading and research under the direction of a member of the MAFLL faculty. Prereq: grad st

799 Reading and Research. 1-3 cr. G. Directed reading and research on a topic selected by the student in consultation with his/her advisory committee. Retakable w/chg in topic to 9 cr max. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee assessed for 1 cr. Prereq: grad st

Classics (CLASSIC)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

304 The Graeco-Roman World: (Subtitled). 3 cr. U/G. Life and literature (in translation) of the ancient Greco-Roman world. Satisfies L&S International req. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Classic 301(R), 302(R), or 303(R)

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

Comparative Literature (COMPLIT)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

309 (effective 09/06/2005) Great Works of Modern Literature: (Subtitled). 3 cr. U/G. Literature of the twentieth and twenty-first centuries, with emphasis on theme, movement, trend, genre, or mode. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; CompLit 207(R) or 208(R)

309 Masterpieces of Twentieth-Century Literature: (Subtitled). 3 cr. U/G. Reading and analysis of the major literary masterworks of the twentieth century. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; CompLit 207(R) or 208(R)

320 (effective 09/06/2005) Mediaeval Literature and Culture: (Subtitled). 3 cr. U/G. Major genres, themes, and figures of the Middle Ages through representative literary works, devotional writings, visual art, architecture, and other examples of cultural production. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st

320 Literature of the Mediaeval World: (Subtitled). 3 cr. U/G. Intensive study of major genres, themes, and figures of the Middle Ages through a critical reading of representative works in French, English, German, Italian, Scandinavian, and Spanish literature in original (comp lit majors see option A) or in translation. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st

321 Literature of the Renaissance World: (Subtitled). 3 cr. U/G. Critical study of major genres, themes, figures, tenets, aspects, influences, and trends in Western Europe. Retakable w/chg in topic to 9 cr max. Satisfies l&s international requirement. Prereq: jr st

350 Topics in Comparative Literature: (Subtitled). 3 cr. U/G. One or more areas of comparative literature across periods, genres, or regions. Satisfies L&S International req. Retakable w/chg in topic to 6 cr max. Prereq: jr st

360 (effective 01/24/2005) Seminar in Literature and Cultural Experience: (Subtitled). 3 cr. U/G. How culture is expressed in literary works with specific emphasis on how dominant and marginalized groups are represented in literature. Satisfies L&S Seminar & International reqs. Retakable w/chg in topic to 6 cr max. Prereq: jr st

360 Seminar in Literature and Cultural Experience: (Subtitled). 3 cr. U/G. How culture is expressed in literary works with specific emphasis on how dominant and marginalized groups are represented in literature. Satisfies L&S Seminar & International reqs. Retakable w/chg in topic to 6 cr max. Prereq: jr st

410 (effective 09/06/2005) Classical Backgrounds of Modern Literature: (Subtitled). 3 cr. U/G. Influences of classical literature and art upon modern literature. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st

410 Classical Backgrounds of Modern Literature: (Subtitled). 3 cr. U/G. Various influences of classical Greek and Roman literature and art upon modern literature. Retakable w/chg in topic to 9 cr

max. Satisfies L&S International req. Prereq: jr st

433 Comparative Mythology. 3 cr. U/G. Various mythologies and their relations to religion, psychology, the new physics, and selected fictional personages (e.g. Wandering Jew, Tarzan); graduate students do research in theories of myth. Satisfies L&S International req. Prereq: jr st; Classic 170(R) or CompLit 240(R)

443 Mediaeval Irish Literature and Its Influences. 3 cr. U/G. The earliest Irish hero-king cycles and the earliest Irish poetry; their relationship to the Continental literature of the Middle Ages. Satisfies L&S International req. Prereq: jr st

444 Myths, Legends and Poems of the Celts. 3 cr. U/G. Reading of the earliest literature of three sister Celtic countries: Ireland, Wales, and Scotland. Analysis of thematic and stylistic elements in the literature and their inter-relationships. Satisfies L&S International req. Prereq: jr st

446 Drama: Aeschylus to Corneille. 3 cr. U/G. Survey of masterpieces of Greek, Roman, Medieval, and Renaissance drama. Prereq: jr st; CompLit 207(P) or 208(P) or 230(P) or equiv

447 Drama: Corneille to Ibsen. 3 cr. U/G. Masterpieces of Western European and Scandinavian drama from 1636 to 1900. Satisfies L&S International req. Prereq: jr st

448 Ibsen, Strindberg, and Modern Scandinavian Drama. 3 cr. U/G. Survey of Scandinavian drama from Holberg through Strindberg and Lagerkvist, with emphasis on the theories and works of Henrik Ibsen and August Strindberg and on their influence upon modern theatre. Satisfies L&S International req. Prereq: jr st

449 (effective 09/06/2005) Modern and Contemporary Drama. 3 cr. U/G. Developments in modern drama from the close of the nineteenth century to the present. Readings and analyses of representative plays. Satisfies L&S International req. Prereq: jr st

449 Twentieth-Century Drama. 3 cr. U/G. Developments in modern drama from the close of the nineteenth century to the present. Readings and analyses of representative plays. Satisfies L&S International req. Prereq: jr st

461 Film-Fiction Interaction: (Subtitled). 3 cr. U/G. Growth and development of film in conjuction with literary devices (narrative, setting, ect.), novels, plays, biographies, and poetry. Mutual influences of literary and cinematic arts. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st

463 Literary Criticism: Major Authors. 3 cr. U/G. The development of critical theories from Plato to the present. Satisfies L&S International req. Prereq: jr st

464 Seminar in Comparative Literary Criticism: (Subtitled). 3 cr. U/G. Principles and theories of literary criticism in a given period; major approaches to literature. Retakable w/chg in topic to 9 cr max. Satisfies L&S International & Seminar reqs. Prereq: jr st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

501 Seminar in Literary Research in the Humanities. 3 cr. U/G. Introduction to bibliographic methods: theory and historiography of comparative literature and its practical application to study of humanistic disciplines. Practice in research, information-retrieval, and editing. Satisfies L&S International & Seminar reqs. Prereq: jr st

504 Seminar in the Novel: (Subtitled). 3 cr. U/G. The novel in its international development from antiquity to the present, with special attention each semester to a particular period or movement. Retakable w/chg in topic to 9 cr max. Satisfies L&S International & Seminar reqs. Prereq: jr st

505 Seminar in Forms of Narrative Fiction from 1945 to the Present. 3 cr. U/G. Critical analysis of works of fiction that have gained prominence since World War II. Satisfies L&S Seminar & International reqs. Prereq: jr st

506 Seminar in the Shorter Forms of Fiction. 3 cr. U/G. Historical survey of the development of the short story and the novella; close analysis of genre theory in the topic area. Satisfies L&S Seminar & International reqs. Prereq: jr st

533 (effective 09/06/2005) Seminar in Trends in Modern Literature: (Subtitled). 3 cr. U/G. Development of important trends, ideas, and forms of world literature, and their contributions to cultural modernity. Retakable w/chg in topic to 9 cr max. Satisfies L&S International & Seminar reqs. Prereq: jr st

533 Seminar in Trends in Modern Literature: (Subtitled). 3 cr. U/G. Trends, ideas, and forms of English and continental literature, with special attention to the making of the modern literary mind. Retakable w/chg in topic to 9 cr max. Satisfies L&S International & Seminar reqs. Prereq: jr st

701 Literature and the Other Arts: (Subtitled). 3 cr. G. The relationships of literature with architecture, music, painting, photography, sculpture, etc. Retakable w/chg in topic to 9 cr max. Prereq: grad st

702 Literature and the Other Disciplines: (Subtitled). 3 cr. G. The relations of literary studies to various academic disciplines (e.g., anthropology, philosophy, political science, sociology, mathematics, etc.). Retakable w/chg in topic to 9 cr max. Prereq: grad st

704 Seminar in Cultural Studies: (Subtitled). 3 cr. G. Investigation of cultural phenomena in their socio-historical contexts and in their symbolization in folklore, literature, and art. Specific topics and any additional prereqs announced in the Timetable each time course is offered. CompLit 704 & MAFLL 704 are jointly offered; they count as repeats of one another. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons MAFLL coord comm chair

707 (701) Seminar in Methods of Literary Analysis: (Subtitled). 3 cr. G. Two or more theoretical and methodological approaches to literature, with application to selected literary texts. Specific topics and any additional prerequisites announced in Timetable each time course is offered. CompLit 707 & MAFLL 707(701) are jointly offered; they count as repeats of one another. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons MAFLL coord comm chair

723 International Literary Relations: (Subtitled). 3 cr. G. Advanced study of literary crosscurrents on an international

scale (e.g., 'existentialist literature in europe and north America', 'English literature in European translations', etc.). Retakable w/chg in topic to 9 cr max. Prereq: grad st

820 Translation Theory. 3 cr. G. The role of translation in the development of languages, cultures, and societies; cultural and ideological forces shaping translations; contemporary theories of translation. Prereq: grad st

860 Literary Concepts and Genres: (Subtitled). 3 cr. G. Detailed study of literary concepts. (e.g., realism, symbolism, cubism) and literary genres, with special attention to their history and development of various literary traditions. Retakable w/chg in topic to 9 cr max. Prereq: grad st

French (FRENCH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

410 French Immersion: Advanced. 1 or 2 cr. U/G. Concentrated, structured practice of spoken French; contemporary topics; small-group setting with native speakers simulates immersion experience. Build vocabulary, improve communication skills. Weekend, interim, or short-term summer modules. Specific credits announced in Schedule whenever course is offered. Retakable to 4 cr max. Prereq: French 325(P) & 327(P), or cons instr

425 Introduction to Translation. 3 cr. U/G. Introduction to basic skills necessary to professional translation. Translation of texts from French into English and from English into French. Summarizing texts. Sight translation. Prereq: grade of B or better in French 325(P); French 322(P) or 327(P)

426 (326) (effective 01/24/2005) Growing Up French. 3 cr. U/G. French civilization from the point of view of the French child, with emphasis on materials familiar to French children and adolescents. Prereq: jr st; two French courses numbered 320 or above or cons instr

427 Advanced Written Expression. 3 cr. U/G. Development of writing proficiency in a variety of genres through close analysis and imitation of good French writing; emphasis on usage, syntax, and authentic French expression. Prereq: jr st; French 325(P) & 327(P) or grad st

428 Castles, Cathedrals, and Common People: The Foundations of French Culture. 3 cr. U/G. Study of major aspects of French society and its cultural expressions from the Middle Ages through the Renaissance. Prereq: jr st; French 322(P); French 325(P) or 327(P); or cons instr

429 (649) Royalty, Reason, and Revolution: The Golden Age of French Culture. 3 cr. U/G. Major aspects of French society and its cultural expressions from the Renaissance through the Revolution. Prereq: jr st; French 322(P), 325(P), 327(P); or cons instr

430 (650) Reaction and Innovation: French Culture of the 19th and 20th Centuries. 3 cr. U/G. French politics, society, and culture from Napoleon's First Empire to De Gaulles's Fifth Republic, 1904-1958. Prereq: jr st; French 322(P), 325(P) or 327(P); or cons instr

450 Institutions and Culture of Contemporary France. 3 cr. U/G. Major political, social, cultural and economic forces shaping France today. France within the European Union and the Francophone world. Prereq: jr st; French 325(P); one add'l 300-level French course or cons instr

451 (351) Cinema of the French-Speaking World: (Subtitled). 3 cr. U/G. Narrative techniques and thematic content of French-language cinema. Retakable w/chg in topic to 9 cr max. First enrollment only counts toward French major. Prereq: jr st; two of French 322(P), 325(P), 327(P) or cons instr

457 Topics in French and Francophone Studies in Translation: (Subtitled). 1-3 cr. U/G. Critical reading, lectures, and discussion of important works on a topic, genre, or historical period, with particular emphasis on intellectual and cultural context. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st or cons instr

510 (665) Seminar on Masterpieces of Literature Written in French: (Subtitled). 3 cr. U/G. Representative works of a major writer or writers. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; French 322(P) & 325(P); or cons instr

520 Seminar in Contemporary French Literature: (Subtitled). 3 cr. U/G. Trends and schools in contemporary novels, theatre, and poetry. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; French 322(P) & 325(P); or cons instr

526 (827) (effective 01/24/2005) Seminar in Advanced Translation. 3 cr. U/G. Translation from French into English and from English into French; advanced grammar; techniques of documentation. Satisfies L&S Seminar req. Prereq: French 425(P) or cons instr

526 (827) Seminar in Advanced Translation. 3 cr. U/G. Translation from French into English and from English into French; advanced grammar; techniques of documentation. Satisfies L&S Seminar req. Prereq: French 425(P) or cons instr

527 Seminar in French Prose: (Subtitled). 3 cr. U/G. - Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req: Prereq: jr st; French 322(P) & 325(P); or cons instr

528 (657) Seminar in French Poetry: (Subtitled). 3 cr. U/G. - Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; French 322(P) & 325(P); or cons instr

529 (643) Seminar in French Theater: (Subtitled). 3 cr. U/G. - Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; French 322(P) & 325(P); or cons instr

592 (effective 01/24/2005) Seminar in French Language: (Subtitled). 3 cr. U/G. Historic, social, geographic, phonological, and lexical evolution of French. How French fits into global and regional contexts. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; two of French 322(P), 325(P), & 327(P); French 392(P); or cons instr

706 Practicum in French Language Methodology and Pedagogy. 1 cr. G. Practical application of methods and concepts taught in MAFLL 706. Retakable to 2 cr max. Prereq: grad st; MAFLL 706(C) or cons instr

731 Seminar in Literature of the Francophone World: (Subtitled). 3 cr. G. Works written in French by writers of Africa, North Africa, the Caribbean, and Quebec. Retakable w/chg in topic to 9 cr max. Prereq: grad st

732 Topics in French and Francophone Culture: (Subtitled). 1-3 cr. G. Advanced study of selected topics in the cultures of France or french-speaking countries. Retakable w/chg in topic to 9 cr max. Not open for cr to students w/cr in French 432 w/same subtitle. Prereq: Grad st; cons instr

733 Seminar in French Literature: (Subtitled). 3 cr. G. In-depth study of important works of French literature. Retakable w/chg in topic to 9 cr max. Prereq: grad st

797 Study Abroad: (Subtitled). 1-6 cr. G. Designed to enroll graduate students in UWM sponsored program before course work, level, content, and credits are determined and/or in specially-prepared program course work. Retakable w/chg in topic. Prereq: acceptance for Study Abroad Prog

799 Independent Study. (Subtitled). 1-3 cr. G. Supervised study with a member of the graduate faculty. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

German (GERMAN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

410 German Cultural History. 3 cr. U/G. Major aspects of German culture from the Middle Ages to the end of the 18th century. Prereq: jr st; German 326(P)

411 Modern-Day Germany. 3 cr. U/G. Continuation of German 410; the 19th and 20th centuries. May be taken before or after German 410. Prereq: jr st; German 326(P)

415 Topics in German Civilization: (Subtitled). 3 cr. U/G. In-depth study of selected topics of German civilization. Critical analysis and practical application of texts and teaching aids. Recommended for present and future high school teachers. Retakable w/chg in topic to 9 cr max. Prereq: jr st & German 326(P)

425 Introduction to Translation. 3 cr. U/G. Introduction to basic skills necessary to professional translation. Translation of texts from German into English and from English into German. Summarizing texts. Sight translation. Prereq: jr st; German 326(P)

461 German for Professional Purposes. 3 cr. U/G. Language and structures of Germany's professional world. Historical, political, legal, economic, social and cultural forces shaping Germany today. Prereq: jr st; German 326(P)

488 Topics in German Philology: (Subtitled). 3 cr. U/G. This course deals with various topics pertaining to advanced German language study or to the development of the German language in its spoken or written form. Retakable w/chg in topic to 6 cr max. Prereq: German 426(C) or cons instr

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work levels, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

511 Survey of German Literature from the Middle Ages to the Baroque. 3 cr. U/G. The major writers of the medieval period, the Reformation, and the Baroque in the context of the European literary tradition. Prereq: jr st, & one course from the group German 450-458(P)

525 Seminar in Advanced German Translation. 3 cr. U/G. Refinement of translation skills; concentration on specific types of texts. Satisfies L&S Seminar req. Prereq: jr st; German 425(P)

526 Advanced German Stylistics. 3 cr. U/G. Analysis and discussion of style in selected prose texts. Practice in speaking and writing German, with special attention given to finer nuances. Prereq: jr st; German 426(C)

641 Seminar in the Intellectual Tradition in German Literature and Thought: (Subtitled). 3 cr. U/G. Major philosophical and social movements in relation to literature. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

643 Seminar on Genre Studies: (Subtitled). 3 cr. U/G. Major genres in German literature -- the drama, the novel, the novelle, poetry and film. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

645 Seminar on Representative German Authors: (Subtitled). 3 cr. U/G. Works of representative authors. Any add'l prereqs announced in Timetable each time course is offered. Retakable w/chg in topic: undergrad, unlimited; grads, 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(P)

647 (effective 01/24/2005) Seminar on Themes and Motifs in German Literature: (Subtitled). 3 cr. U/G. Recurring patterns and figures in the major genres. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

647 Seminar on Themes and Motifs in German Literature: (Subtitled). 3 cr. U/G. Recurring patterns and figures in the major genres. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

649 Seminar on Theoretical Approaches to German Literature: (Subtitled). 3 cr. U/G. Particular theoretical ideas and methods applied to selected texts; literary movements in relation to philosophy and aesthetics. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

651 (658) Seminar on Contemporary German Literature: 1965 to the Present. 3 cr. U/G. Recent developments in German literature. Satisfies L&S Seminar req. Prereq: jr st; one course from the group German 450-458(C)

671 Seminar on Phonetics. 3 cr. U/G. Articulatory phonetics and phonemics, emphasis on English-German contrasts and pronunciation difficulties; phonetic transcription; drills in pronunciation. Satis-

fies L&S Seminar req. Prereq: jr st; German 326(C)

681 Seminar on the History and Structure of German. 3 cr. U/G. Historical development of the German language from its beginnings to the present. Satisfies L&S Seminar req. Prereq: jr st; German 426(C) or cons instr

706 Practicum in German Language Methodology and Pedagogy. 1 cr. G. Practical application of methods and concepts of teaching German. Retakable to 2 cr max. Prereq: grad st; MAFLL 706(C) or cons instr

730 Twentieth-Century Literary Studies: (Subtitled). 3 cr. G. Topics from 1889 to the present, e.g. naturalism; expressionism; the twenties; the literature of the emigrants; postwar literature; the contemporary scene; etc. Specific topic and any additional prerequisites will be announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

Greek (GREEK)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

372 The New Testament. 1-2 cr. U/G. Study of Koine Greek and quantitative readings in the Greek New Testament. 1 grad cr allowed for grad students conc enrolled in Classic 304; 2 cr for undergrads. Prereq: jr st; Greek 104(P)

501 Readings in Classical Greek Prose: (Subtitled). 3 cr. U/G. Extensive reading from works of one of the following: Herodotus, Thucydides, Plato, or the Attic Orators. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Greek 304(P) or equiv preparation

502 Readings in Ancient Greek Poetry: (Subtitled). 3 cr. U/G. Extensive reading from the works of one of the following: Homer, the Greek lyric poets, Aeschylus, Sophocles, Euripides, or Aristophanes. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Greek 304(P) or equiv prep

Hebrew Studies (HEBR ST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

311 Fourth-Year Hebrew. 3 cr. U/G. Problems in Hebrew literature. Conducted in Hebrew. Prereq: jr st & Hebr St 302(P). Not available for grad cr.

312 Fourth-Year Hebrew. 3 cr. U/G. Problems in Hebrew literature. Conducted in Hebrew. Prereq: jr st & Hebr St 302(P). Not available for grad cr.

411 Old Testament Texts: (Subtitled). 3 cr. U/G. Reading of Hebrew text through grammatical and critical analysis. Specific topics and any additional prerequisites will be announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Hebr St 106(P) or 202(P)

413 Literary Analysis of Biblical Narrative. 3 cr. U/G. The nature of biblical narrative. Structure and message. Repetition and analogy. Artistic devices. Prereq: Hebr St 411(P). Not available for grad cr

415 Survey of Hebrew Poetry. 3 cr. U/G. Principal works and authors of Hebrew poetry in biblical and payyetnic period. Original Hebrew texts are analyzed. Prereq: jr st; Hebr St 106(P) or 202(P)

416 Survey of Hebrew Poetry. 3 cr. U/G. Principal works and authors of Hebrew poetry in medieval and modern periods. Original Hebrew texts are analyzed. Prereq: jr st; Hebr St 106(P) or 202(P)

420 Introductory Aramaic - Biblical. 3 cr. U/G. Introduction to Aramaic language. Biblical passages in Aramaic analyzed for understanding of this Semitic language used throughout ancient Near East in fifth century B.C.E. Prereq: jr st; Hebr St 202(P) or 206(P)

471 Introduction to the Midrash: (Subtitled). 3 cr. U/G. Reading and interpretation of selected Hebrew and Aramaic texts from the Midrashic literature (Mekhilta, Sifre, Bereshit Rabba) with special regard to the method and terminology of rabbinic exegesis. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Hebr St 106(P) or 202(P)

472 Introduction to the Midrash: (Subtitled). 3 cr. U/G. Continuation of Hebr St 471. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Hebr St 106(P) or 202(P)

474 Introduction to the Mishna. 3 cr. U/G. Continuation of Hebr St 473. Prereq: jr st; Hebr St 202(P) or 206(P)

475 Introduction to the Targum. 3 cr. U/G. Survey of targumic literature, linguistic analysis of its Aramaic dialect, and examination of its place in rabbinic literature and textual biblical criticism. Prereq: jr st; Hebr St 202(P) or 206(P)

476 Introduction to the Targum. 3 cr. U/G. Continuation of Hebr St 475. Analysis of the Targum Jonathan to the prophets and the various Midrashic Targumim to the Hagiographa. Prereq: Hebr St 202(P) or 206(P). Not available for grad cr.

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored programs before course work level, content and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

Italian (ITALIAN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

333 Dante's Divine Comedy in Translation. 3 cr. U/G. A close reading of the Inferno, Purgatorio, and Paradiso. Satisfies L&S International req. Grad students specializing in Italian will fulfill course requirements in Italian. Prereq: jr st.

391 Phonetics. 2 cr. U/G. Theory of Italian sounds; phonetic transcription; practice in pronunciation. Language lab may be required. Prereq: jr st & Italian 311(P) or 312(P); or grad st

457 (effective 05/23/2005) Topics in Italian Literature and Culture in Translation: (Subtitled). 3 cr. U/G. Critical read-

ing, lectures, and discussion of major works on a topic, genre, or period; attention to cultural and historical context. Retakable w/chg in topic to 9 cr max. Prereq: jr st

460 The Italian Novel from Manzoni to the Present. 3 cr. U/G. Major trends and critical problems. Prereq: jr st, Italian 321(P) & 322(P), & cons instr; or grad st

463 Italian Poetry from Romanticism to Hermeticism. 3 cr. U/G. Foscolo, Leopardi, Carducci, Pascoli, D'Annunzio, Marinetti, Campana, Ungaretti, Montale, Quasimodo. Prereq: jr st & Italian 321(P) & 312(P); or grad st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

552 The Renaissance: (Subtitled). 3 cr. U/G. One or more aspects of intellectual, literary, and artistic production in Italy from Petrarch and Humanism to the Counter-Reformation. Retakable w/chg in topic to 9 cr max. Prereq: jr st & Italian 311(P) & 312(P); or grad st

659 The Divine Comedy. 3 cr. U/G. Lectures on the life and times of Dante and reading of selected passages from his minor works. Prereq: jr st & Italian 311(P) & 312(P); or grad st

660 The Divine Comedy. 3 cr. U/G. Continuation of Italian 659. Prereq: jr st & Italian 659(P) or cons instr; or grad st

670 Studies in Italian Literature: (Subtitled). 3 cr. U/G. Major movements or periods, criticism, studies in genres, relations between literature and other disciplines/arts. Retakable w/chg in topic to 9 cr max. Prereq: jr st & Italian 311(P) & 312(P); or grad st

Latin (LATIN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

501 Readings in Latin Prose: (Subtitled). 3 cr. U/G. Extensive reading from the works of one of the following: Cicero, Caesar, the Roman historians, or Petronius. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Latin 311(R) or equiv

502 Readings in Latin Poetry: (Subtitled). 3 cr. U/G. Extensive reading from the works of one of the following: the Roman comic dramatists, Catallus, Lucretius, Horace, Ovid, Vergil, the Roman satirists, or medieval Latin authors. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Latin 311(R) or equiv prep

508 Latin Prose Composition. 3 cr. U/G. Survey of Latin syntax and idioms, with appropriate exercises in prose composition. Required of Latin majors. Prereq: Latin 310(P) or equiv prep as judged by instr

Linguistics (LINGUIS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

370 General Phonetics and Phonetics Practicum. 3 cr. U/G. Study of linguistic phonetics, including articulatory physiology, acoustics, and speech perception. Practice in production and transcription of a wide variety of speech sounds. 3 hrs lec with practicum. Prereq: jr st

390 Fundamentals of Linguistic Analysis. 3 cr. U/G. Introduction to the systematic analysis of language. Principles and methods of describing phonological and syntactic processes. Prereq: jr st & Linguis 350(P) or 400(P)

398 Topics in Linguistics: (Subtitled). 1-6 cr. U/G. Topics in any of several recognized areas of linguistics. Retakable w/chg in topic to 9 cr max. Prereq: jr st

400 Introduction to English Linguistics. 3 cr. U/G. Application of linguistic theory and techniques to modern English. Linguis/English 400 required of all English majors and minors in School of Education. Jointly-offered with & counts as repeat of English 400. Prereq: jr st; satisfaction of GER English Composition competency req.

410 Linguistics and Grammar in ESL Education. 3 cr. U/G. Grammatical and other linguistic concepts relevant to ESL education; implications for teaching language, reading and composition. Topics include language acquisition and grammatical problems in language/dialect variation. Prereq: jr st & Linguis 350(P)

412 Applied Phonology. 3 cr. U/G. An introduction to the application of phonetic and phonological principles to problems concerning disordered speech, language learning, and interlanguage. Prereq: jr st & Linguis 350(P) & 370(P)

420 Introduction to Second Language Acquisition. 3 cr. U/G. Principles and methods of describing and comparing the structure of two or more languages with emphasis on the implications of this comparison for language learning. Prereq: jr st; Linguis 350(P) or equiv

430 Language and Society. 3 cr. U/G. The influence of society on language and of language on society. Language as social interaction, speech styles, social dialects; effects on language change. Prereq: jr st & Linguis 350(P)

440 Psycholinguistics. 3 cr. U/G. A survey of the history, goals, methods, and findings of psycholinguistics. Principal topics: phonetic perception, speech production, syntactic processing, linguistic memory, meaning, and language acquisition. Prereq: jr st; Linguis 350(R) or Psych 101(R); or grad st & cons instr

460 Sounds and Sound Systems. 3 cr. U/G. Basic properties of sounds, sound patterns, and sound processes of spoken language. Prereq: jr st & Linguis 350(P); or grad st & cons instr

464 Word and Sentence Structure. 3 cr. U/G. Study of word and sentence formation in languages. Practice in analysis and argumentation using data from various languages. Prereq: jr st & Linguis 350(P); or grad st & cons instr

466 Semantics. 3 cr. U/G. The study of meaning in language; its role in grammatical description. Basic concepts used in semantic analysis and discussion of their place in grammatical theory. Prereq: jr st & Linguis 260(P) or 350(P) or Philos 211(P), or grad st & cons instr

468 Language in its Various Forms: (Subtitled). 3 cr. U/G. Analysis and description of various language types. Topics may include language change, language development, dialectology, and language typology. Retakable w/chg in topic to 9 cr max. Prereq: jr st & Linguis 350(P); or grad st & cons instr

470 Historical/Comparative Linguistics. 3 cr. U/G. The study of language change; introduction to internal reconstruction and the comparative method; generative approaches to historical change. Prereq: jr st & Linguis 350(P); or grad st & cons instr

474 Language Typology and Language Universals. 3 cr. U/G. Comparison of phonetic, syntactic, and lexical patterns of different languages, with emphasis on deriving statements about properties of all languages or of significant subclasses of languages. Prereq: jr st & Linguis 350(P); or grad st & cons instr

476 Linguistic Theory. 3 cr. U/G. Survey of twentieth century American linguistic theories from traditionalism through American structuralism to generative grammar, including discussion of some current issues. Prereq: jr st & Linguis 350(P); or grad st & cons instr

490 Field Methods. 3 cr. U/G. Work with a native speaker of a foreign language. Gathering and collation of data. Evaluation of possible phonemic and grammatical analyses. Prereq: jr st & Linguis 350(P); or grad st & cons instr

492 Structure of a Language: (Subtitled). 3 cr. U/G. Structure of a non-Indo-European language or an uncommonly-taught Indo-European language such as Hindi, Persian, Yiddish, etc. Retakable w/chg in language to 9 cr max. Satisfies L&S International req. Prereq: jr st & Linguis 350(P), or grad st & cons instr

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

560 Advanced Phonology. 3 cr. U/G. Fundamental issues in generative phonology; emphasis on comparing alternative models of phonological description. Prereq: jr st; Linguis 460(P)

564 Advanced Syntax. 3 cr. U/G. Continuation of Linguis 464, with greater emphasis on the evaluation and justification of competing solutions and competing models of grammar. Prereq: jr st & Linguis 464(P)

565 Introduction to Adult/University Level TESOL. 3 cr. U/G. Overview of the various approaches to teaching English as a second language (ESL) to adult/university-level learners. Jointly-offered w/& counts as repeat of English 565. Does not satisfy requirements in School of Educ. Prereq: jr st; cons instr

708 (Linguis 701) Proseminar in Linguistics. 3 cr. G. Presents a range of linguistic constructs, demonstrating through readings, problems, and exercises how these concepts can be used in the analysis of language. Linguis 708(701) & MAFLL 708 are jointly offered; they count as repeats of one another. Prereq: grad st

799 Independent Reading and Research. 1-3 cr. G. Open to graduate students in other departments to study a linguistics topic relating to an area of their specialization within their discipline. Retakable w/chg in topic to 9 cr max. Prereq: grad st

Russian (RUSSIAN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

411 Fourth Year Russian I. 2 cr. U/G. Composition, conversation, reading, and stylistics. Prereq: jr st; Russian 306(P)

412 Fourth Year Russian II. 2 cr. U/G. Composition, conversation, reading, and stylistics. Prereq: jr st; Russian 411(P)

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

511 Russian Phonetics. 2 cr. U/G. Analysis of various systems of transcription of spoken Russian. Prereq: jr st & Russian 306(C)

515 The Structure of Russian. 2 cr. U/G. Analysis of phonological, morphological, and syntactic aspects of modern Russian, with some historical perspective. Prereq: jr st & Russian 306(P)

Spanish (SPANISH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

340 Phonetics. 3 cr. U/G. Theory of Spanish sounds; phonetic transcription; practice in pronunciation. Language lab may be required. Prereq: Spanish 311(P) or 317(P)

344 Spanish Syntax. 3 cr. U/G. Comprehensive review of Spanish syntax; analysis of the meaning of sentences and discourse. Application to composition and style. Prereq: Spanish 311(P) or 317(P)

347 Introduction to Translation: Spanish to English. 3 cr. U/G. Introduction to basic skills necessary to professional translation. Translation of texts from Spanish into English. Summarizing texts. Sight translation. Prereq: jr st; Spanish 311(P) or 317(P); grade of C or better in English 102(R) or score at level 4 on EPT recom

348 Introduction to Translation: English to Spanish. 3 cr. U/G. Introduction to technical translation. Translation of texts from English into Spanish. Summarizing texts, sight translation. Prereq: jr st; Spanish 311(P) or 317(P); grade of C or better in English 102(R) or score at level 4 on EPT recom

349 Introduction to Interpreting. 3 cr. U/G. Spanish-English interpreting in legal, medical, social service, and education contexts. Consecutive interpreting with some attention to simultaneous interpreting. Prereq: Spanish 320(310)(P) or cons instr

401 Medieval Literature: (Subtitled). 3 cr. U/G. Analysis of representative texts from medieval Spanish literature ('El Cid,' ballads, 'Libro de Buen Amor,' and others). Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

403 The Renaissance in Spain: (Subtitled). 3 cr. U/G. Topics on the poetry, the narrative and didactic prose, and/or the drama of the late fifteenth and the sixteenth centuries. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

405 Golden Age Literature: (Subtitled). 3 cr. U/G. Topics on the poetry and/or the narrative and didactic prose of the late sixteenth and the seventeenth centuries. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

407 Golden Age Drama: (Subtitled). 3 cr. U/G. Studies in the theater of the 16th and 17th centuries (Calderon, Lope de Vega, Tirso de Molina, Alarcon, and others). Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

409 Cervantes: (Subtitled). 3 cr. U/G. 'Don Quixote' and/or other works by Cervantes. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

411 The Enlightenment in Spain: (Subtitled). 3 cr. U/G. Topics on the poetry, the narrative, and the didactic prose and/or the drama of the 18th century. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

415 Romanticism and Realism: (Subtitled). 3 cr. U/G. Topics on the poetry, the fiction and/or the drama of the 19th century. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

417 Modern Spanish Literature: (Subtitled). 3 cr. U/G. Topics on the poetry, the fiction and/or the drama of the twentieth century up to the Civil War period. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

419 Contemporary Spanish Literature: (Subtitled). 3 cr. U/G. Topics on the poetry, the fiction and/or the drama of the twentieth century up to the Civil War period. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 351(P), or writ cons dept

441 History of the Spanish Language. 3 cr. U/G. External and internal history of the language, including an introduction to the study of Spanish dialects. Prereq: Spanish 311(P) or 317(P); Spanish 340(R) & 344(R) strongly recom

445 Topics in the Spanish Language: (Subtitled). 3 cr. U/G. Discussion of one or more branches of linguistics in relation to the Spanish language, such as lexicology, dialectology, morphology, etc. Retakable w/chg in topic to 9 cr max. Prereq: Spanish 311(P) or 317(P); Spanish 340(R) & 344(R) strongly recom

447 Seminar in Advanced Translation: Spanish to English. 3 cr. U/G. Comparative study of Spanish and English syntax; advanced translation (Spanish to English) of texts from the humanities, social and political sciences, technical writing, advertising. Satisfies L&S Seminar req. Prereq: jr st; Spanish 347(P) or writ cons dept; grade of C or better in English 102(R) or score at level 4 on EPT recom

448 Seminar in Advanced Translation: English to Spanish. 3 cr. U/G. Comparative study of Spanish and English syntax; advanced translation (English to Spanish) of texts from the humanities, social and political sciences, technical writing, advertising. Satisfies L&S Seminar req. Prereq: jr st; Spanish 348(P) or writ cons dept; grade of C or better in English 102(R) or score at level 4 on EPT recom

449 Advanced Court Interpreting. 3 cr. U/G. Theory and practice of court interpreting; vocabulary building; development of skills necessary for consecutive and simultaneous interpretation and sight translation. Listening skills, note-taking, memory techniques. Prereq: Spanish 349(P) or cons instr

451 Pre-Columbian and Chronicle Literature: (Subtitled). 3 cr. U/G. Literature of Spanish America's indigenous inhabitants, recorded by themselves and Spaniards. Chronicles, other accounts of the discovery, conquest, and early colonization of Meso/South America. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 353(P), or writ cons dept

453 Spanish-American Colonial Literature: (Subtitled). 3 cr. U/G. The poetry, narrative, didactic prose, and dramatic literature of Spanish America during the 17th and 18th centuries. Retakable w/chg in topic to 6 cr max. Prereq: Spanish 350(P) & 353(P), or writ cons dept

455 Nineteenth Century Spanish-American Literature: (Subtitled). 3 cr. U/G. Topics on the poetry, fiction, drama and/or the essay of the Spanish-American countries during the 19th century. Retakable w/chg in topic to 9 cr max. Prereq: Spanish 350(P) & 353(P), or writ cons dept

457 Modern Spanish-American Literature: (Subtitled). 3 cr. U/G. Topics on the poetry, the fiction, the essay and/or the drama of the Spanish American countries during the twentieth century up to the fifties. Retakable w/chg in topic to 9 cr max. Prereq: Spanish 350(P) & 353(P), or writ cons dept

459 Contemporary Spanish-American Literature: (Subtitled). 3 cr. U/G. Poetry, fiction, essay and/or drama of the Spanish-American countries in the contemporary period. Retakable w/chg in topic to 9 cr max. Prereq: Spanish 350(P) & 353(P), or writ cons dept

506 Seminar in Spanish Literature: (Subtitled). 3 cr. U/G. One or more areas of Spanish peninsular literature across periods, genres, or regions. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: Spanish 350(P) & 351(P), or writ cons dept

507 Seminar in Spanish-American Literature: (Subtitled). 3 cr. U/G. One or more areas of Spanish-American literature across periods, genres, or regions. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: Spanish 350(P) & 353(P), or writ cons dept

508 (effective 01/24/2005) Seminar in Hispanic Literature: (Subtitled). 3 cr. U/G. A literary subject with manifestations in more than one Hispanic literature, including Latino literature, with focus on the differences among them. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: Spanish 350(P) & 351(P) or 353 (P); or writ cons dept

508 Seminar in Hispanic Literature: (Subtitled). 3 cr. U/G. A literary subject with manifestations in more than one Hispanic literature, including Latino literature, with focus on the differences among them. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: Spanish 350(P) & 351(P) or 353 (P); or writ cons dept

510 Seminar in a Hispanic Writer: (Subtitled). 3 cr. U/G. - Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: Spanish 350(P), & Spanish 351(P) or 353(P); or writ cons dept

701 Historical Grammar. 3 cr. G. Evolution of grammatical structures from Latin to medieval Spanish and from medieval to modern Spanish. Prereq: grad st; Spanish 340(R) & 344(R)

705 Seminar in the Structure of the Spanish Language: 3 cr. G. Selected problems in Spanish linguistics. Prereq: grad st

706 Practicum in Spanish Language Methodology and Pedagogy. 1 cr. G. Practical application of methods and concepts of teaching Spanish. Retakable to 2 cr max. Prereq: grad st; MAFLL 706(C) or cons instr

751 Seminar in Medieval Literature and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

755 Seminar in Renaissance Literature and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

757 (753) Seminar in One or More Areas of Siglo de Oro Literature and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

759 Seminar in the Literature of the Enlightenment and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

763 Seminar-Romantic Literature in Spain &/or Spanish America & Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

767 Sem on Realistic Literature in Spain &/or Spanish America & Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

769 (765) Seminar in 20th Century Literature of Spain and/or Spanish America & Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

771 Seminar in Early Spanish American Literature and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

781 Seminar in Hispanic Literature: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

783 Seminar in Latino Literature and Related Topics: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st

791 Spanish Culture and Related Topics: (Subtitled). 3 cr. G. An in-depth examination of the culture of Spain with special attention paid to the history of the country and to the formation of a Spanish identity. Retakable w/chg in topic to 9 cr max. Prereq: grad st

793 Spanish American Culture and Related Topics: (Subtitled). 3 cr. G. In-depth examination of the development of a Latin American culture with a focus on key aspects of that culture after independence. Retakable w/chg in topic to 9 cr max. Prereq: grad st

795 Hispanic Culture: (Subtitled). 3 cr. G. The culture of the Hispanic people from a variety of perspectives with a focus on one or more manifestations of it. Topic to be announced. Retakable w/chg in topic to 6 cr max. Prereq: grad st

799 Independent Work. 1-3 cr. G. Supervised study with a member of the graduate faculty. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

Cross-listed Courses

The following course may be used to fulfill certain curricular requirements of the graduate program in Foreign Language and Literature.

English 400 Introduction to English Linguistics. 3 cr, U/G.

GEOGRAPHY

College of Letters and Science

Degrees Conferred: MA, MS, PhD in Geography
Phone: (414) 229-4866
FAX: (414) 229-3981
E-mail: bjm2@uwm.edu
Web site: www.uwm.edu/Dept/Geography

The Department of Geography offers master's programs of study across a range of systematic, regional, and technical fields, and an innovative Ph.D. program focused on the urban environment. The department's strengths lie in three areas of expertise that are incorporated into the programs at both master's and Ph.D. levels. These areas are:

- **Urban Development**. This area primarily emphasizes the role of economic systems as well as cultural and social forces that shape the landscape and dynamics of urban areas. Courses examine such issues as urban growth and change, race and ethnicity in the city, cultural and physical aspects of urban planning process, and the geography of urban political decision-making.
- **Physical Geography and Environmental Studies**. This area addresses the interactions among natural forms and processes on the earth's surface and human connections with those natural phenomena. Course work in this general area discusses the distribution and analysis of earth surface landforms and processes (geomorphology), soils (pedology), plants and animals (biogeography) and long-term atmospheric patterns (climatology). Emphasis is placed on the relationship between the physical environment and people, incorporating studies of, for example, natural hazards, conservation, and environmental change, and paying particular attention to the manifestations of these relationships and processes in the urban environment.
- **International Interests:** Department faculty members have varied international interests and experience, for example, in Africa, Canada, the Caribbean, China, Latin America, South Asia, and Western Europe.

In addition to these departmental strengths, individual faculty members apply their expertise in topics such as remote sensing, GIS, and cartography to problems of the city.

While the master's program offers a more traditional structure within which students can strengthen their knowledge of the discipline and one or more of its subfields, the department's unique Ph.D. program is designed to be especially attractive to forward-looking students interested in the urban environment who seek a flexible, versatile, 21st century graduate education with a strong emphasis on interdisciplinarity. The Ph.D. program's urban-environmental theme is inclusive and encompassing of processes and problems associated with the intersection of human and natural environments, strongly focused on "the city" as the entity of engagement. The program breaks with long-standing tradition in the field of geography in stressing a balance between specialized analytical research and synthetic research, between traditional academic research and community engagement, and between research and teaching. It relies heavily on Geographic Information Science (GIS) as a research tool and as an organizing framework.

Facilities and Resources
The University of Wisconsin - Milwaukee is the repository of the venerable American Geographical Society Library, an internationally renowned research resource. The Department of Geography boasts a large instructional Map Collection, which functions as a federal government depository for maps; and a Soils and Physical Geography Laboratory, which supports research projects among several UWM departments.

Microcomputer facilities used by the Geography Department for instruction include two PC/Windows workstation labs. Software installed in these labs includes geographic information systems, remote sensing, mapping, illustration, photo editing, desktop publishing, statistical, database management, and word processing packages. Several university DEC Alphas, other microcomputer laboratories, and multimedia facilities also are available for graduate student research.

Other research resources at UWM available to the Geography Department staff and students include the Cartography and GIS Center, the Great Lakes WATER Institute, the Center for Urban Initiatives and Research, the Center for Latin America, the Center for International Education, the Center for Urban Transportation Studies, the Center for Women's Studies, the Institute for Survey and Policy Research, and the Information and Media Technologies Division.

MA/MLIS Coordinated Degree Program

In cooperation with the School of Information Studies, the Department of Geography offers an MA/MLIS coordinated program to prepare students for positions as map librarians. Students in the program will pursue concurrently a Master of Arts in Geography degree program and a Master of Library and Information Science degree program, with an emphasis on Map Librarianship. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree.

For students in this program, all requirements and standards of the Geography concentration are exactly as described in this section of this Bulletin, with the single exception that Library Science 683, Cartographic Resources in Libraries, counts as one of the required seminars. For more information on this program, see the Library and Information Science section of this Bulletin.

Graduate Faculty

PROFESSORS

Andrews, Sona Karentz, Ph.D., Arizona State University
Day, Michael J., Ph.D., Oxford University, England, Chair
Schwartz, Mark D., Ph.D., University of Kansas

ASSOCIATE PROFESSORS

Fredlund, Glenn, Ph.D., University of Kansas
Kenny, Judith, Ph.D., Syracuse University

McCarthy, Linda, Ph.D., University of Minnesota
Wei, Yehua "Dennis", Ph.D., University of California-Los Angeles

ASSISTANT PROFESSORS

DeSousa, Christopher A., Ph.D. University of Toronto, Canada
Drezner, Taly, Ph.D., Arizona State University
Ghose, Rina, Ph.D., University of Wisconsin-Milwaukee
Heynen, Nikolas, Ph.D., Indiana University
Reitman, Meredith, Ph.D., University of Washington
Wu, Changshan, Ph.D., Ohio State University

Master of Arts/Master of Science in Geography

The MA normally is awarded to those who concentrate in cultural or human geography, whereas the MS is awarded to those who concentrate in physical geography. Students must elect to pursue either the MA or MS option during their first semester in the program. A minimum of 6 credits in physical geography or natural science courses appropriate to the student's area of study are required for the MS. Students may also elect to complete their degree through either a thesis or non-thesis track.

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Evidence of general intellectual ability and compelling interest in geography. An undergraduate major in geography is desirable as evidence of such ability and interest but is not required. Past coursework will be compared to the core requirements of the UWM Geography bachelor's degree in order to determine any deficiencies that need to be satisfied as a condition of acceptance.

- Submission to the Geography department of three letters of recommendation supporting application.

- Submission of recent GRE scores.

- Departmental approval, based on thorough evaluation of applicant's potential for professional development.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The Chair of the Graduate Student Administrative Committee is a temporary advisor; within the first semester the student selects an advisor in the student's specialization.

Credits and Courses
Minimum degree requirement is 24 graduate credits with an average GPA of 3.0. The student, in consultation with the advisor, plans a program of studies to include 4 credits in Geography 525 (Geographic Information Science); 3 credits in Geography 547 (Spatial Analysis); 3 credits in Geography 810 (Introduction to Techniques of Research and Presentation); 3 credits in Geography 870 (Contemporary Geographic Approaches); and 9 credits in graduate level (700 and above) courses approved by the student's advisor (at least 3 of these credits must be in one Geography 900-level course). The student also must attend Geography colloquia regularly while in residence and must present her/his thesis research at a departmental colloquium.

Thesis Track
The student, through the advisor, must present a proposed thesis topic and Advisory Committee to the Graduate Faculty of the Department for its approval. For students electing the MS option, the Faculty will also judge the appropriateness of the thesis topic for that degree. The student must then write a thesis acceptable to the major professor for presentation to the Advisory Committee (two faculty in addition to the advisor). The defense date for the thesis must be set at least two weeks prior to the Graduate School deadline for completion of all work. The thesis must be approved by the advisor and delivered to the committee at least six weeks prior to the defense date. Students must submit the thesis to the advisor in sufficient time to meet the committee deadline. Exceptions to these deadlines under unusual circumstances must be approved unanimously by the student's committee.

In addition to submission of the final thesis to the Graduate School (according to its required procedure), the candidate must present the Geography Department with a professionally hard-bound copy that meets Graduate School specifications for quality. This copy will remain on file in the department.

Non-Thesis Track
This track is intended for students who are not interested in continuing their graduate education beyond the Master's, and plan to seek professional employment. The MA degree will normally be awarded upon completion of this track. Those who wish a MS degree must formally petition the Graduate Faculty in writing, providing a rationale as to why that degree is appropriate to their program. The student must complete 3 credits of graduate work (approved by the student's advisor) as either:

a. two (15 page/3750 word minimum) research papers (Geog 999) or

b. a graduate internship (Geog 698 or Geog 889)

Comprehensive Examination
In combination with the thesis defense (or after completion of the work for the non-thesis track), the student must pass a final oral examination over the field of geography, administered by the student's Advisory Committee. Scheduling this examination during the summer is not permitted except under unusual academic circumstances and with the approval of the department faculty.

Time Limit
This program is designed to be completed in two years of full-time attendance. The Graduate School requires that all degree requirements be completed within five years of initial enrollment.

Doctor of Philosophy in Geography

Admission
An applicant must meet Graduate School requirements to be considered for admission to the program. Students from a wide

range of disciplinary backgrounds may be admitted. They must present the following credentials:

- Master's degree.
- Statement of interest in the program.
- Substantial evidence of scholarly potential and commitment.
- Three letters of recommendation, submitted to the Geography Department.
- Recent (within five years) GRE scores.

In some instances where the applicant's record demonstrates exceptional promise, the Department will consider applications for admission to the Ph.D. program directly from a BA/BS degree. Such admission does not constitute a waiver of any of the requirements indicated below.

The Graduate Program Committee, during the admission process, will evaluate an applicant's academic background and will assign deficiencies based on a comparison of his/her background and the proposed specific area of study as outlined in the student's statement of interest. In general, the department seeks students with: (a) potential for planning and successfully completing an independent scientific research project, as evidenced by a master's thesis and/or other appropriate materials; (b) basic statistical analysis skills; (c) interest and/or ability in evaluating problems related to the urban environment with a spatial framework; and (d) interest in examining research questions within a multi-disciplinary (human/physical) team environment.

Reapplication
A student who receives the master's degree from UWM must formally reapply for admission to the Graduate School before continuing studies toward the Ph.D.

Major Advisor and Committee
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations; the student may not register for any courses without that advisor's prior approval. The Chair of the Graduate Student Administrative Committee is a temporary advisor; within the first semester the student selects an advisor within the area of specialization. Each student, preferably after completion of the first year of study, also will select four additional members of the faculty/qualified professions to form his/her advisory committee. A majority of the committee members must be core geography faculty members. Affiliated faculty members from other departments may serve as major advisors.

Graduate Student Orientation
All new students are expected to participate in the department orientation program, offered during the week prior to the start of fall classes. If a student enters the program in the spring, s/he must participate in this program during the subsequent fall semester. New students will be paired with an experienced student mentor during their first year. Instructional opportunities sponsored by the Center for Instruction and Professional Development (CIPD) and the Preparing Future Faculty (PFF) initiative will be offered to all teaching assistants and other interested students enrolled in the doctoral program.

Course of Study
Minimum degree requirement is 54 graduate credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM with a minimum GPA of 3.0.

Under the guidance of the advisory committee, the chair of which serves as the student's major professor, the student plans a program of study leading to the development of a special interest. All programs of study contain the following five elements: core concepts and methods, thematic focus, practicum, elective courses (as needed to meet the total credit requirement), and dissertation.

Core Concepts And Methods (four courses)
All students must take the following foundation courses:
Geog 525 Geographic Information Systems
Geog 870 Contemporary Geographic Approaches
Geog/UrbPlan 880 Challenges to Urban Sustainability
One of the following three courses:
Geog 403 Remote Sensing: Environmental and Land Use Analysis
Geog 547 Spatial Analysis
Geog 727 Qualitative Research

Thematic Focus (at least three courses)
Students must select one of the following three thematic foci, within which to complete a minimum of three courses, to provide specialized expert knowledge in one aspect of urban environments:

Local Places: Problems and Issues.
Relevant courses include:
Geog 441 Geography of Cities and Metropolitan Areas
Geog 455 Applied Climatology
Geog 464 Environmental Problems
Geog 564 Urban Environmental Change and Social Justice
Geog 7xx Urban Growth Management (under development)
Geog 7xx Environmental Justice (under development)
Geosci 465 Advanced Environmental Geology
UrbPlan 720 Cities and Regions: Urban Regional Development Theory and Planning
UrbStd 981 Perspective Toward Change in Urban Social Institutions

Global and Regional Perspectives.
Relevant courses include:
Geog 430 Geography of Transportation
Geog 440 City Systems and Metropolitan Development
Geog 443 Cities of the World: Comparative Urban Geography
Geog 540 Globalization and the City
Geog 7xx Urban Environmental Strategies (under development)
Geog 742 Urban and Regional Dimensions of Global Economic Change
Geosci 470 Engineering Geology
UrbPlan 780 Seminar in Environmental Planning Issues
UrbStd 701 Comparative Urban Development

Monitoring and Modeling Urban Dynamics. Relevant courses include:
Geog 420 Methods and Principles in Landform Geography
Geog 522 Cartographic Design
Geog 650 Geography Field Work
Geog 725 Advanced GIS
Geog 7xx Land Use Analysis (under development)
Geosci 730 Modeling Techniques for Hydrogeology
UrbPlan 721 Cities and Regions: Planning Analysis
UrbStd 725 Methods of Urban Community Development

Practicum (one course)
Students must complete Geog 885 Practicum, a collaborative experience in which

students apply accumulated theoretical and analytical skills to practical problems. Ideally, student should enroll in the practicum after their first full year of courses, but no later than their fourth semester, after they have completed the majority of CORE requirements. The practicum may take one of the following two forms:

- An applied research experience involving community-based problem solving
- The development of educational curricula and/or instructional outreach materials on topics pertaining to urban environmental sustainability.

Foreign Language Requirement
If appropriate to the proposed area of study, the student's committee will require that s/he acquire the necessary competence in a foreign language. The major professor will supervise the completion of this requirement with input from the committee as necessary.

Elective Courses
Courses taken from geography or cognate fields to achieve the total of 54 credits required for the Ph.D. degree. Students must have the approval of their advisors for the elective courses.

Dissertation
The candidate must write an acceptable dissertation that demonstrates formulation, design, and independent execution of a significant research project. The dissertation must make an original contribution to knowledge in the field of geography. It may focus on geographical theory, methodology, data, or analysis, or it may involve collaborative approaches, interdisciplinary syntheses, and integrative solutions appropriate to the focus of the student's graduate program of study.

Portfolio Evaluation
By the end of the first full academic year in the program, each student will undergo a formal portfolio evaluation by the members of the faculty in order to determine the student's readiness to continue in the program. This evaluation will include inspection of all written work produced in courses, commentary by relevant instructors, and any other materials the student chooses to submit. The possible outcomes of this review will be: (a) PASS (student continues with the normal second year of their program); (b) FAIL (student is recommended for academic dismissal); or (c) PROBATION (student is counseled to take specific courses or other actions to achieve the necessary readiness to continue in the program). In the case of a recommendation of Probation, the student will be re-evaluated after an additional semester. If this second review does not result in a decision to PASS, the student will be recommended for academic dismissal.

Residence
The student must meet minimum Graduate School residence requirements of one continuous academic year of full-time graduate studies at UWM. This can be satisfied by completing 8 to 12 graduate credits in each of two consecutive semesters, or 6 or more graduate credits in each of three consecutive semesters, exclusive of summer sessions. Residence credit cannot be earned at the master's level or before the master's degree is awarded.

Doctoral Preliminary Examination
Each student will undergo a comprehensive written and oral examination by the end of his/her sixth semester in the program. The student's committee, advisor, and proposed dissertation topic must be approved formally by the Geography departmental faculty prior to the scheduling of these exams. A Proposed PhD Program/Plan of Study must be filed with the major professor prior to the preliminary examination. Successful completion of these exams leads to candidacy, when work on the dissertation can commence.

The student's advisor, as chair of the advisory committee, will organize and administer the examination. The content of the examination will be determined by the area of the student's interest. The scope of the examination will be determined by the student's advisory committee. A student judged qualified by the majority of the five-member advisory committee will be admitted to candidacy. A student judged not qualified by the majority of the advisory committee will not be admitted to candidacy at the time of the examination but will be given an opportunity to retake the examination once, after a waiting period of at least one semester. At the discretion of the advisory committee, the second examination will be either a complete reexamination or a partial examination over the parts in which the student failed to qualify. A student receiving a negative vote of the advisory committee after the second examination will be recommended for academic dismissal. The student will be informed of the reasons for failure to qualify.

Presentations
Each student must make two presentations at department colloquia. The first presentation will be scheduled early in the student's program; it is designed to give the student experience in making formal presentations. The second presentation will communicate the student's dissertation research topic and preliminary results.

Dissertation
As mentioned above, the candidate must write an acceptable dissertation. The defense date for the dissertation must be set at least two weeks prior to the Graduate School deadline. The dissertation must be approved by the major professor and delivered to the student's advisory committee at least six weeks prior to the defense date. A student must submit the dissertation to the advisor in sufficient time to meet the committee's deadline. Exceptions to these deadlines under unusual circumstances must be approved unanimously by the student's committee.

Dissertation Defense
The candidate must, as the final step toward the degree, defend the dissertation before the advisory committee. If the candidate passes the defense, the advisory committee will recommend to the Graduate School that a degree of Doctor of Philosophy be conferred.

Submission of Completed Dissertation
In addition to submission of the final dissertation to the Graduate School (according to its required procedure), the candidate must present to the Geography Department a professionally hard-bound copy that meets Graduate School specifications for quality. This copy will remain on file in the department.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School Ph.D. requirements, see the Ph.D. section of the Graduate Student and Faculty Handbook.

Special Issues for Directly Admitted Students
Students directly admitted to the doctoral program after completion of their bachelor's degree will not earn a master's de-

gree during the course of their studies. Further, formal doctoral status (which affects stipend rates and the ability to fulfill the residency requirement) will not be granted until the student has completed 24 credits in the program. Lastly, no more than 12 dissertation credits can be used to satisfy the 54-credit doctoral degree requirement.

For additional information on Graduate School Ph.D. requirements, see the Doctoral Student and Advisor Handbook.

Courses

Geography (GEOG)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

400 (300) Geography of Population. 3 cr. U/G. Spatial analysis of demographic variations, with emphasis on the economic and social characteristics of the population and population mobility; principal focus on the United States. Prereq: jr st & Geog 110 or 115

401 Introduction to the History of European Cartography Before 1500 A.D. 3 cr. U/G. Mapping in Europe from prehistoric times to the late Middle Ages. Maps in pre-historic rock art, the ancient world and the Middle Ages. Prereq: jr st; Geog 225; Hist 101 or 204. Not available for grad cr

403 Remote Sensing: Environmental and Land Use Analysis. 4 cr. U/G. Use of aerial photographs and digital imagery in environmental and land use analysis, including urban areas. 3 hrs lec; 2 hrs lab PC/Windows familiarity recom. Prereq: jr st & Geog 215(P); or grad st

405 Cartography. 4 cr. U/G. Thematic cartography; map communication, design principles, illustration and mapping software. 3 hrs lec, 2 hrs lab. Prereq: jr st & Geog 215(P); or grad st

411 Physical Climatology. 3 cr. U/G. Analyzing climatic processes at the microclimate scale. Budgets of radiation, energy, water, and momentum at the earth's surface, sensible-latent heat, and soil-plant-atmosphere interactions. Prereq: jr st, Geog 120(P) or Atm Sci 100(P) or 240(P), & Geog 310(R); or grad st

420 Methods and Principles in Land Form Geography. 3 cr. U/G. Geographic qualitative and quantitative methods in land form analysis and principles of landscape evolution. Prereq: jr st & Geog 120(P) or 121(P) or Geo Sci 101(P)

421 Geography of Latin America. 3 cr. U/G. Topical and regional analysis of physical features, discovery and exploration, processes of settlement, evolution of the landscape, and problems of development through modern times. Satisfies L&S International req. Prereq: jr st & Geog 110(P) or 120(P) or 125(P); or grad st

422 Geography of South America. 3 cr. U/G. Topical and regional analysis of physical features, discovery and exploration, processes of settlement, evolution of the landscape and problems of development through modern times. Satisfies L&S International req. Prereq: jr st & Geog 110(P), 120(P), 201(P), or 205(P) or equiv

424 Karst Geomorphology. 3 cr. U/G. Description and analysis of karst (limestone) processes and landforms. Prereq: jr st; Geog 4(P), 120(P) or cons instr

425 Land Form Geography of the United States. 3 cr. U/G. Regional analysis of the present land surface form and its origin. Not open to students with cr in either Geog 426(ER) or 427(ER). Prereq: jr st & Geog 120(P) or 121(P) or Geo Sci 101(P)

426 Regional Geomorphology of Eastern North America. 3 cr. U/G. Regional analysis of the land form of North America east of the Rocky Mountains. 2 hrs lec, 1 hr lab. Not open to students with cr in Geog 425. Prereq: jr st; Geog 120(P) or 121(P) or Geo Sci 100(P) or 101(P)

427 Regional Geomorphology of Western North America. 3 cr. U/G. Regional analysis of the land form of North America west of the Great Plains. 2 hrs lec, 1 hr lab. Not open to students with cr in Geog 425. Prereq: jr st & Geog 120(P) or 121(P) or Geo Sci 100(P) or 101(P)

430 (330) Geography of Transportation. 3 cr. U/G. Geographic analysis of transportation, with emphasis on commodity flows and traffic patterns. Prereq: jr st; Geog 115(P)

431 Geography of Air Transportation. 3 cr. U/G. Elementary technical aspects of private and commercial aviation, spatial organization of airline industry, airport planning and development. Prereq: jr st; cons instr. Not available for grad cr.

440 City Systems and Metropolitan Development. 3 cr. U/G. External relations of systems of cities and metropolitan areas with special reference to North America; economic, social, political and physical relations among cities and hinterlands. Prereq: jr st & intro course in geog or acceptable course in an urban related field, e.g. Econ, UrbPlan, Urb Std; or grad st

441 Geography of Cities and Metropolitan Areas. 3 cr. U/G. Extent, localization, and geographic relations of land uses, facilities, and internal circulation, with particular reference to large North American cities. Prereq: jr st & intro course in geog or acceptable course in an urban related field, e.g. Econ, UrbPlan, Urb Std; or grad st

443 Cities of the World: Comparative Urban Geography. 3 cr. U/G. Geographic analysis of world urban systems with emphasis on the cultural traditions, form, function and socio-economic development of cities. Satisfies L&S International req. Prereq: jr st & Geog 110(P), 115(P), 140(P), or 201(P)

450 Climates of the Past and Climate Change. 3 cr. U/G. Climatic history of the earth and climate models. Milankovitch theory, quaternary climates, temporal-spatial scales of change, general circulation, and earth system models. Prereq: jr st, Geog 120(P) or Atm Sci 100(P) or 240(P), & Geog 310(R); or grad st

455 Applied Climatology. 3 cr. U/G. Applications of climate processes and data. Solar energy, wind energy, food production, water usage, building design, urban environments, ecological assessment, and land form development. Prereq: jr st, Geog 120(P) or Atm Sci 100(P) or 240(P), & Geog 310(R); or grad st

460 Historical Geography of the United States. 3 cr. U/G. Historical development of cultural landscapes, with emphasis on land use and environmental change resulting from introduced and domestic in-

novations. Prereq: jr st & one of the following: Geog 105(P), 110(P), 201(P), 211(P), or 306(P); Hist 151(P), 152(P), 251(P), or 252(P)

462 Cultural Geography of Latin America. 3 cr. U/G. Development of cultural landscapes, with emphasis on land use and environmental change resulting from European introductions; historical explanation of modern landscapes and environmental problems. Satisfies L&S International req. Prereq: jr st; one of Geog 105(P), 110(P), 421(P), 422(P), Hist 180(P), 388(P), 389(P), or 390(P)

463 Geography of Religions. 3 cr. U/G. Geographic aspects of religions: the areas of origin and dispersal of religions, religious culture regions, religious ecology, pilgrimages, and religious landscape. Satisfies L&S International req. Prereq: jr st; one of the following: Geog 105(P), 110(P), 201(P), 305(P), or 309(P); one comparative study of religion course recom

464 Environmental Problems. 3 cr. U/G. General discussion and case studies of geographical contexts and historical roots of modern environmental problems. History of human concern over adverse environmental impacts. Prereq: jr st & an intro course in a life science or environmental science

470 Geography of South Asia. 3 cr. U/G. Survey of the historical, cultural and economic geography of South Asia, including India and adjacent countries. Satisfies L&S International req. Prereq: jr st; intro geog, anthro, or econ course

475 Geography of Soils. 3 cr. U/G. Systematic and regional study of soils, interrelationships of soils with the physical and cultural landscape. 2 hrs lec, 2 hrs lab. Prereq: jr st; Geog 120(P), 121(P), or 125(P) or equiv

480 Techniques in Quaternary Palynology. 3 cr. U/G. Practicum in the use of fossil pollen analysis for reconstruction of past environments. The class will investigate the late-quaternary history of a local wetland. Prereq: jr st; Geog 340(P) or Bio Sci 310(P) or cons instr

490 Northern Lands. 3 cr. U/G. Topical and regional analysis of the Arctic and sub-Arctic areas of North America and Eurasia, emphasis on Alaska, northern Canada and Greenland. Prereq: jr st; an intro course in geog

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work levels, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

520 Physical Geography of the City. 3 cr. U/G. Spatial aspects and interactions of plants, animals, climate, soils, and water resources relevant to human activities in the urban environment. Prereq: jr st & Geog 120(P) or 125(P); or grad st

522 Cartographic Design. 3 cr. U/G. Cartographic design and desktop production methods, principles of color theory, black and white and color mapping. 2 hrs lec, 2 hrs lab. Prereq: jr st & Geog 405(P)

525 Geographic Information Science. 4 cr. U/G. Geographic and information theoretical foundations of geographic information systems (GIS). Use of macro languages in a software project to expand GIS functionality. 3 hrs lec, 2 hrs lab. Prereq: jr st, & Geog 215(P); or grad st

540 Globalization and the City. 3 cr. U/G. Spatial aspects of globalization and their impact on the city. Topics include emergence of global cities, impacts on urban development, and global era urban strategies. Prereq: jr st

547 Spatial Analysis. 3 cr. U/G. Advanced analysis techniques, including multivariate relationships and spatial modeling. Prereq: jr st; Geog 247(447)(P) or dept-approved equiv

564 Urban Environmental Change and Social Justice. 3 cr. U/G. Spatial aspects of contributors to urban environmental change affecting social justice. Inequitable distribution of environmental risks and benefits; challenge of developing policies. Prereq: jr st

625 Intermediate Geographic Information Science. 4 cr. U/G. Concepts and techniques of geographic information science (GIS), with emphasis on GIS-based spatial analysis, associated applications, and technology. 3 hrs lec, 2 hrs lab. Prereq: jr st: Geog 525(P) or UrbPlan 591(P) or 791(P); or cons instr

650 Geography Field Work. 3 cr. U/G. Geographic field techniques and field problems; classroom preparations and field projects. Students will pay fieldwork expenses. Retakable w/chg in topic to 9 cr max. Prereq: jr st; writ cons instr

653 Soils of Wisconsin Field Study Tour. 2 cr. U/G. Three-day field study tour to representative areas in the major soil zones of Wisconsin; three pre-trip and three post-trip sessions; written reports. Prereq: jr st; Geog 475(P) or Geo Sci 401(P) or cons instr

654 Tropical Field Course. 3 cr. U/G. Study of geographic field problems and techniques in the tropics. Classroom preparations, field projects and field trip to the tropics. Students will pay field trip expenses. Retakable for cr w/chg of field topic & site to 9 cr max. Satisfies L&S International req. Prereq: jr st; writ cons instr

655 Arctic Winter Field Course: (Subtitled). 3 cr. U/G. Study of geographic field problems and techniques under arctic winter conditions. Classroom preparations, field projects and field trip to the Arctic. Satisfies L&sS International req. Student pays field trip expenses. Retakable w/chg of field project & site to 9 cr max. Prereq: jr st; cons instr

656 Arctic Summer Field Course: (Subtitled). 3 cr. U/G. Study of geographic field methods and research under arctic summer conditions. Classroom preparations, field projects and field trip to the Arctic. Satisfies L&S International req. Student pays field trip expenses. Retakable w/chg of field project & site to 9 cr max. Prereq: jr st; cons instr

698 GIS/Cartography Internship. 1-6 cr. U/G. Practical GIS/cartography experience with government agency or private firm under supervision of working expert and faculty member. Intern's contract specifies duties and duration. Retakable to 6 cr max. Prereq: jr st; Geog 215(P); writ cons instr & dept chair

703 (effective 01/24/2005) Advanced Remote Sensing. 3 cr. G. Advanced techniques of image processing and analysis, including classification, georegistration, and spatial modeling. Prereq: grad st; Geog 403(P)

725 Advanced Geographic Information Science: Geographic Modeling. 3 cr. G.

Advanced spatial modeling with both GIS and other tools of geo-computation, including examination of conceptual models aimed at an analysis of their possible implementation. Prereq: grad st; Geog 625(P)

727 Qualitative Research. 3 cr. G. Qualitative research as applied in geography, including the relationship between quantitative and qualitative approaches, issues of interpretation, and ethics of field work. Prereq: grad st

734 (effective 01/24/2005) GIS and Society. 3 cr. G. Interconnected relationship between Geographic Information Science (GIS) and society, including hidden impacts and implications of such a relationship. Prereq: grad st

742 Urban and Regional Dimensions of Global Economic Change. 3 cr. G. Geographic perspectives on urban and regional change as "developed" and "less developed" parts of the world become more interconnected by wider international processes of change. Prereq: grad st

744 (effective 01/24/2005) Cities, Regions, and Globalization. 3 cr. G. Globalization process and impact on cities and regions, including emergence of global cities and regions, impact on uneven development, and global era urban strategies. Prereq: grad st

750 (effective 01/24/2005) Remote Sensing and Urban Analysis. 3 cr. G. Seminar in remote sensing technologies and applications in urban analyses, including land use/land cover analysis, socio-economic information estimation, heat-island effect, sprawl monitoring, and growth modeling. Prereq: grad st; Geog 403(P); Geog 525(P) or UrbPlan 591(P) or 791(P).

810 Introduction to Techniques of Research and Presentation. 3 cr. G. Proseminar on the scholarly use of materials in all aspects of geography; training for effective presentation in both written and oral form. Prereq: grad st

870 Contemporary Geographic Approaches: (Subtitled). 3 cr. G. Foundations of geographic inquiry, with emphasis on the roles of sub-disciplines, and generalist/specialist approaches in the development of geographic science. Retakable w/chg in topic to 6 cr max. Prereq: grad st

871 Theory and Methodology in Geography. 3 cr. G. The role of theory in geography, with emphsis on the examination and critical evaluation of recent theoretical and methodological developments in the discipline. Retakable w/chg in topic to 6 cr max. Prereq: grad st

880 Challenges to Urban Sustainability. 3 cr. G. Urban environmental management theory and practice, history of the urban environmental crisis, and alternative strategies for understanding human activity/ecological process relationships in urban areas. Jointly-offered w/& counts as repeat of UrbPlan 880. Prereq: grad st

885 Geography Practicum. 3 cr. G. Opportunity for graduate students to work together to solve a real world problem facing Milwaukee. Developing/sharpening organizational, analytical, communication, and decision-making skills required of geographers. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee assessed for 1 cr. Prereq: grad st

889 Internship in Geography. 1-6 cr. G. Application of advanced principles of geography in a business, organizational, educational, political, or other appropriate setting. Intern's contract specifies duties and duration. Retakable to 6 cr max. Prereq: grad st; Geog 810(P); writ cons instr & dept chair

890 Research and Master Thesis. 1-6 cr. G. Research connected with master thesis. Retakable to 6 cr max. Prereq: grad st

905 Seminar: Selected Topics in Geography: (Subtitled). 3 cr. G. - Retakable w/topic chg to 9 cr max. Prereq: grad st

930 Seminar: Cultural Geography. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

931 Seminar: Population Geography. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

932 Seminar: Economic Geography. (Subtitled). 3 cr. G. Analysis in depth of significant topics in advanced economic geography specializations: agricultural geography, geography of manufacturing, and geography of transportation. Retakable w/chg in topic to 9 cr max. Prereq: grad st

934 Seminar: Urban Geography. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

940 Seminar: Physical Geography. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

941 Seminar: Climatology. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

942 Seminar: Geography of Land Form. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

945 The Internal Structure of the City. 3 cr. G. The interaction of forces responsible for the evolution of the city as a spatial form and the allocation of economic and social activity within the spatial configuration. Geog 945 & Urb Std 945 are jointly-offered; they count as repeats of one another. Prereq: grad st

950 Seminar: Regional Geography. (Subtitled). 3 cr. G. Analysis in depth of significant topics in advanced regional geography. Retakable w/chg in topic to 9 cr max. Prereq: grad st

960 Seminar: Geographic Techniques. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

962 Problems in the History of Cartography: (Subtitled). 3 cr. G. An introduction to methods in the history of cartography and to the evaluation of maps as historical sources. Seminar. Specific topics and any additional prerequisites will be announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

990 Research and Doctoral Dissertation. 1-12 cr. G. Research projects connected with dissertation. Retakable to 12 cr max. Prereq: grad st

999 Independent Work. 1-6 cr. G. Independent reading or project. Retakable w/chg in topic to 12 cr max. Prereq: grad st

Cross-listed Courses

The following courses may be used to fill certain curricular requirements of the graduate program in Geography.

Geosciences 401 General Soil Science. 4 cr, U/G.

Geosciences 550 Soils, Landscape, and the Environment. 3 cr, U/G.

GEOSCIENCES

College of Letters and Science

Degrees Conferred: MS, PhD in Geosciences
The PhD program in Geosciences is not accepting new students at this time.

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www.uwm.edu/Dept/Geosciences

The Department of Geosciences offers graduate work emphasizing applied aspects of the hydrologic, geological, and geophysical sciences. The geological sciences concentration prepares students for careers in such areas as engineering and environmental geology, hydrogeology, geophysical exploration, mining and petroleum geology.

The MS degree program trains students equally for professional practice and continued graduate study. The typical course of study takes two years to complete. The PhD degree program, with interwoven components in lithospheric and hydrospheric science, is problem oriented rather than specialty oriented: this program is designed to produce scholars and practitioners capable of applying their training to achieve sound and pragmatic solutions to real problems in the earth sciences. Students in the doctoral program will normally spend a minimum of two years of formal course work, not including dissertation research.

The Department has a variety of geological and geophysical field equipment including a drill rig, portable water sampling and analytical systems, and marine and land-based seismic and electrical resistivity systems. In addition, the Department maintains the following equipment directly or through its association with the UWM Center for Great Lakes Studies: x-ray diffractometer and spectrometer, atomic absorption unit, gas and ion chromatographs, liquid scintillation counter, cold region environmental chambers, operating well field, seismograph, Paleomagnetics laboratory, and recirculating flume.

Supporting facilities in the University include a computing center, scanning electron microscope, a cartographic laboratory, the Saukville Field Station 50 km north of the campus, the Center for Great Lakes Studies, and the Urban Research Center.

The Department also maintains the extensive geological collections of the Greene Geological Gallery and cooperates actively with the Milwaukee County Public Museum.

Graduate Faculty

PROFESSORS

Cherkauer, Douglas S., Ph.D., Princeton University
Grundl, Timothy J., Ph.D., Colorado School of Mines
Isbell, John L., Ph.D., Ohio State University
Kean, William F., Ph.D., University of Pittsburgh
Lasca, Norman P., Ph.D., University of Michigan, Chair
Sverdrup, Keith, Ph.D., University of California-San Diego

ASSOCIATE PROFESSOR

Harris, Mark T., Ph.D., Johns Hopkins University

ASSISTANT PROFESSORS

Boundy, Theresa M., Ph.D., University of Michigan
Cameron, Barry I., Ph.D., Northern Illinois University
Czeck, Dyanna, Ph.D., University of Minnesota
Dornbos, Stephen, Ph.D., University of Southern California

Master of Science in Geosciences

Admission
An applicant must meet Graduate School requirements plus the following departmental requirements to be considered for admission to the program:

- Undergraduate preparation consisting of one year each of: college chemistry, college physics, and calculus; one summer of field training in geology for students majoring in geology.
- Undergraduate grade point average of 3.0 (4.0 scale).
- Submission of scores on the Graduate Record Examination (General Test).

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. A geology student who lacks field training must acquire the training not later than the summer following initial enrollment.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The student is assigned a temporary advisor at the time of initial enrollment and requests a faculty member to serve as the thesis advisor after selecting an area of specialization.

Credits and Courses
Minimum degree requirement is 30 graduate credits, at least 24 of which must be earned in formal course credits and up to 6 of which may be earned through an acceptable thesis. A graduate student is allowed to register for a maximum of nine 990 research credits, no more than 6 of which may be counted toward the 30-credit requirement.

All students in their second or later year are required to present a progress report annually to the Department.

Proposal for Thesis
Prior to the formal undertaking of thesis research, the student must prepare a written proposal for the thesis problem including an estimate of costs to be incurred. Copies of the proposal are to be distributed to the faculty advisor and the Department reading file. One copy is to be placed in the student's permanent Department file. An abstract of the proposal is to be distributed to each Department

faculty member for comment and criticism.

Thesis
The student must write an acceptable thesis embodying the results of original research completed under the direction of the advisor.

Comprehensive Examination
The student must pass a comprehensive examination, either oral or written or both. In part a defense of the thesis, the examination covers the student's entire graduate program of studies. At the option of the student, the part of the examination consisting of the presentation of the results of thesis research may be open to other graduate students.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Geosciences

Admission
To be considered for admission to the program, an applicant must meet Graduate School requirements plus the following program requirements:

- Hold a master's degree in one of the natural sciences, engineering, or mathematics or have equivalent experience, and
- Submit scores from the Graduate Record Examination (general test).

A student who holds a master's degree from UWM must formally reapply for admission to The Graduate School before continuing studies toward the Ph.D.

Course of Study
Doctoral students must earn 54 credits beyond the bachelor's degree, of which 24 credits may be taken from formal course-work completed as part of the master's study. At least 21 graduate credits beyond the master's degree must be earned in formal coursework. Coursework must include at least 8 graduate credits in courses taken outside of the Department in areas relevant to the student's research interests; these minor courses are selected in consultation with the student's advisor. Students are strongly advised to take courses from each of their committee members prior to taking the doctoral preliminary examination. An assessment of the student's complete course needs will be made during the first semester of study.

Quantitative Skill
A working knowledge of a computer programming language and statistics appropriate to the student's field of study is required. Undergraduate courses taken to meet this requirement may not be used to fulfill the Department's minor requirements.

Doctoral Committee
Prior to the doctoral preliminary examination, the membership of the Doctoral Committee must be established. The Committee must consist of the following: the doctoral student's advisor as chair (or co-advisors as co-chairs); at least three additional graduate faculty from the Geosciences Department; and at least one member from one of the student's minor departments. The student is required to meet with the Doctoral Committee at least once each year.

Doctoral Preliminary Examination
The doctoral preliminary examination is administered in two parts: a series of written exams and an oral exam. The written and oral exams are taken after the residency requirement is fulfilled. The dissertation proposal shall be defended within one semester of completion of the written and oral exams. Students who successfully pass all three elements of the doctoral preliminary examination are admitted to doctoral dissertator status.

Annual Presentation of Results
Each dissertator is required to make a 30-minute presentation of research results at a Geosciences Colloquium each year. Dissertators are also required to make a 50-minute colloquium presentation of the results of the completed doctoral research prior to the dissertation defense.

Dissertation
The candidate must present a written dissertation reporting in the student's own style the results of independent, original research carried out under the direction of the major professor.

The dissertation must be reviewed by a Reading Committee consisting of the major professor and at least two other members of the dissertation committee. Information regarding dissertation deadlines, preparation, and review of the dissertation is available from the Student Services Office of The Graduate School.

Dissertation Defense
The defense consists of (1) the dissertation defense, and (2) may include questions related to the dissertator's major and minor fields of study. If the dissertation is defended and the oral examination is passed to the satisfaction of at least three-quarters of the Doctoral Committee, the candidate is passed and recommended for the degree.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

Additional Requirements and Information
Detailed information about program requirements is provided to each student following admission and is available from the Department office. For additional information on Graduate School Ph.D. requirements, see the Graduate Student and Faculty Handbook or the Doctoral Student and Advisor Manual, available in Mitchell 261.

Doctor of Philosophy with an Interdisciplinary Specialization in Biogeochemistry

Under the auspices of the doctoral programs in Chemistry, Biological Sciences, and Geosciences and the research program of the Center for Great Lakes Studies, the Department of Geosciences offers doctoral training with an interdisciplinary specialization in Biogeochemistry. This specialization provides a multi-disciplinary graduate degree program within the broad field of environmental and aquatic science.

Admission
Prospective students wishing to specialize in Biogeochemistry must first be admitted to the Department of Geosciences Doctoral Program. Admission to the Interdisciplinary Specialization is determined by the Interdisciplinary Biogeochemistry Specialization Committee consisting of representatives from the participating depart-

ments and the Center for Great Lakes Studies. In addition to meeting departmental admission requirements, students are expected to have an undergraduate degree in geosciences or a closely related field and to have completed at the college level, at least two semesters of calculus, one semester of statistics, two years of chemistry and one year of physics. A master's degree is not a prerequisite for admission to the Ph.D. program.

Major Advisor and Research Committee
Entering students are assigned a temporary major professor to advise and supervise their studies. No later than the end of the third semester, students in this specialization are required to choose a permanent major advisor to direct their doctoral research and to form a graduate thesis research committee consisting of graduate faculty from the Departments of Biological Sciences, Chemistry, Geosciences and the Center for Great Lakes Studies.

Course of Study
All doctoral students are required to earn a minimum of 54 credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. The curriculum of the Interdisciplinary Specialization includes a required Biogeochemistry Core course taken in the first year of graduate study, an annual seminar course requirement, and individualized course requirements selected by the student's graduate thesis research committee from a wide variety of course offerings in the sciences and related fields, based upon the student's background and doctoral research topic. At the end of the first year, students must pass a written qualifying examination based upon core course materials and their departmental major in order to continue in the Biogeochemistry Specialization.

Students are expected to pursue a program of highly original, interdisciplinary research in the broad field of environmental science, which synthesizes the linkages among the physical, chemical and biological components of the natural world. In addition to course work and research, students in the Interdisciplinary Specialization are required to obtain at least one semester of teaching experience as a teaching assistant in one the natural science departments, and participate in local community outreach through presentations, instruction, or interactions with local secondary schools, or other community involvement related to environmental issues. All students are required to obtain field experience as an integral part of their training program, e.g. through field research activities here or abroad, participation in sea-going research cruises, etc.

Doctoral Preliminary Examination
In order to advance to candidacy for the Ph.D. degree, students must pass a written and oral doctoral preliminary examination, no later than at the end of their second year, demonstrating a comprehensive knowledge in the field of biogeochemistry and their own chosen area of specialization. Upon completion of their research, students must prepare and defend a dissertation, reporting the results of their research in a public forum.

Further Information
Admission, general program requirements, and additional information on degree and research opportunities can be obtained from the departmental office or from the UWM Center for Great Lakes Studies.

Courses

Geosciences (GEO SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

401 General Soil Science. 4 cr. U/G. Soil profile development, weathering, soil mineralogy, water and nutrient relationships, classification of soil. 2 hrs lec, 1 hr dis, 3 hr lab. Required field trips for which fees are assessed. Prereq: jr st; Chem 104(P) or equiv or cons instr

405 Geology for In-Service Teachers: (Subtitled). 1-3 cr. U/G. Basic, advanced or new topics in geology for in-service teachers. Retakable with change in topic to max of 9 cr. Prereq: in-service teacher, additional prereqs depending on topic.

409 Process Geomorphology. 3 cr. U/G. Study of geological processes and their effect on the formation and evolution of land forms. Lec, lab, field trips for which fee is assessed. Prereq: jr st; Geo Sci 100(P), Geog 120(P), or 121(P)

435 History of Geologic Thought. 3 cr. U/G. History of development of the major concepts in geology. Prereq: jr st; Geo Sci 102(P) or cons instr

440 Geochemical Thermodynamics. 3 cr. U/G. Basic equilibrium thermodynamics applied to low-temperature and high-temperature geochemical problems. Prereq: jr st, Chem 104(P), Geo Sci 301(P), & Math 231(P)

443 Glacial and Pleistocene Geology. 3 cr. U/G. Mechanics of glacial flow, Pleistocene stratigraphy, and laboratory techniques. Lec, lab, & field trips for which fees are assessed. Prereq: jr st; Geo Sci 100(P) or 101(P) or Geog 120(P) or 121(P). Geo Sci 102(R) or 108(R)

461 Physical Oceanography. 3 cr. U/G. Overview of physical oceanography, conservation of mass, salinity and momentum, thermodynamics, equations of motion. Waves, currents and circulation. Prereq: jr st; Math 232(P); & Physics 123(P) or 210(P) or 220(P)

463 Physical Hydrogeology. 3 cr. U/G. Study of ground water occurrence, its interrelationship with surface water, aquifer properties, groundwater flow and water supply development, including well hydraulics, water quality, and groundwater law. Lec, lab, & field trip for which fee is assessed. Prereq: jr st; Geo Sci 100(P) or 101(P); Math 232(P)

464 Chemical Hydrogeology. 3 cr. U/G. Natural chemical processes that occur in groundwater systems, how they are modified by human activity and contamination, and attempts to regulate them. Lec, Lab. Prereq: jr st; Chem 102(P)

465 Advanced Environmental Geology. 3 cr. U/G. Interaction between humans and the geological environment; attention to local urban situations, including pollution, lakeshore erosion, flooding, and earth resources. 3 hrs lec. Prereq: jr st; Geo Sci 100(P) or 101(P)

470 Engineering Geology. 3 cr. U/G. Designed to provide engineers and geologists with an understanding of geologic factors that are important in preventing engineering failures. Lec and field trip.

Prereq: jr st; Geo Sci 100(P) or 101(P), or Civ Eng 335(P); Math 231

480 Applications of Quantitative Methods in the Geophysical Sciences. 3 cr. U/G. Students will learn a variety of mathematical techniques used in processing Earth science data. Application of these techniques and analysis of the results will be emphasized. Prereq: Math 231(P); Geo Sci 316(P)

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

511 Stratigraphy and Sedimentation. 3 cr. U/G. Techniques and principles of sedimentology and stratigraphy, including methods of correlation, analysis of facies, stratigraphic mapping, and tectonic controls of sedimentation. Lec, lab, field trips. Prereq: jr st ; Geo Sci 302(P) or equiv

515 Physical Sedimentology. 3 cr. U/G. Physical properties, processes, and environments of clastic sediments. Lec, lab, field trip for which fee is assessed. Prereq: jr st; Geo Sci 511(P)

520 Introduction to Paleontology. 3 cr. U/G. General study of fossils and theoretical principles used in the study of paleontology. Lec, lab, field trips. Prereq: jr st; Geo Sci 102 or 108

550 Soils, Landscape, and the Environment. 3 cr. U/G. An overview of soil development in various depositional and landscape systems; soil's relation to environmental pollution and erosion problems. Required field trip. Prereq: jr st; Geo Sci 401(P) or Geog 475(P) or cons instr

555 Plate Tectonics. 3 cr. U/G. Survey of plate tectonics, including continental and oceanic tectonics, plate kinematics, the mechanisms of plate motion, and the evolution of the plate tectonic model. Prereq: jr st; Geo Sci 302(P); Geo Sci 414(R)

558 Conducted Field Trip: (Subtitled). 1-3 cr. U/G. Field trip to a classical geologic area. Preceded by a seminar. Retakable w/chg in topic to 9 cr max, only 3 cr of which may be applied toward geo sci major. Prereq: jr st; cons instr

563 Field Methods in Hydrogeology. 3 cr. U/G. Introduction to current equipment and methodology used in field evaluation of hydrologic systems. Well installation and monitoring, stream gaging, indirect surface observations. Lab, field trip for which fee is assessed. Prereq: jr st; Geo Sci 463(P)

599 Geology of Wisconsin--Field Course. 3 cr. U/G. Multi-institutional team-taught, conducted field course throughout Wisconsin; instruction in the field, using exposures on which Wisconsin's geological history has been interpreted. Prereq: jr st; Geo Sci 302(P)

614 Geomechanics and Advanced Structural Geology. 3 cr. U/G. Analysis of the mechanics of reformation as applied to geological structures from microscopic through regional scales. Lec, voluntary field trip for which fee is assessed. Prereq: jr st; Geo Sci 414(P) or Civ Eng 335(P) or 457(P)

637 Optical Mineralogy. 3 cr. U/G. Theory and application of optical methods in the study of minerals and petrologic problems. Lec, lab. Prereq: jr st; Geo Sci 301(P)

638 Petrology of Igneous and Metamorphic Rocks. 3 cr. U/G. Recent trends and applications in the fields of igneous and metamorphic petrology. Lec, lab. Prereq: jr st; Geo Sci 637(P)

655 Topics in Structure and Tectonics: (Subtitled). 1-3 cr. U/G. - Retakable w/chg in topic to 9 cr max. Prereq: jr st; Geo Sci 414(P) or 555(P)

660 Geophysical Exploration: Land Lab. 1 cr. U/G. Applications in the field of various geophysical methods for subsurface exploration. Lab. field trip. Prereq: jr st; Geo Sci 661(C)

661 Geophysical Exploration. 3 cr. U/G. Principles and applications of various geophysical methods used in subsurface exploration. Lec. Prereq: jr st; Geo Sci 100(P) or 101(P); Physics 120(P) & 121(P) or equiv; Math 231(P) or equiv

663 Earthquake Seismology. 3 cr. U/G. Cause, size, location, hazards, prediction and control of earthquakes and the interpretations of earthquake seismograms. Prereq: jr st; Geo Sci 316(P); or grad st & cons instr

668 Geoelectrical Methods. 3 cr. U/G. Fundamentals of electrical resistivity surveys and electromagnetic methods, with an emphasis on surficial and environmental applications. Prereq: jr st; Geo Sci 316(C), 463(C), or 661(C)

695 Internship in Geoscience. 1-3 cr. U/G. An internship consistent with the student's plan of study in geosciences. Requirements and evaluation determined by the department on an individual basis. Prereq: jr st; cons dept

696 Topics in the Geological Sciences: (Subtitled). 1-3 cr. U/G. Add'l prereqs announced in Timetable each time course offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st

697 Seminar in the Geological Sciences: (Subtitled). 1-3 cr. U/G. Specific credits and add'l prereqs announced in Timetable each time course offered. Satisfies L&S Seminar req. Retakable w/chg in topic to 9 cr max. Prereq: jr st

704 Biogeochemistry: (Subtitled). 1-4 cr. G. The role of aquatic, atmospheric, and terrestrial environments in mediating and controlling the cycles of biologically important elements on time scales of milliseconds to millenia. Jointly-offered with Bio Sci 704 & Chem 704. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

730 Modelling Techniques for Hydrogeology. 3 cr. G. Study and application of modelling techniques in hydrogeology. Includes finite difference and finite element techniques for groundwater flow, contaminent transport, and geochemistry. Prereq: grad st; Geo Sci 463; knowledge of fortran or equiv; cons instr

736 Case Histories in Engineering Geology and Geotechnical Engineering. 3 cr. G. Case history presentations by the instructors, practicing geologists and engineers, and the students. Importance of case histories in advancing the state-of-the-art in engineering geology and geotechnical engineering. Prereq: grad st & cons instr

740 Carbonate Sedimentology. 3 cr. G. Depositional processes, environments and stratigraphic analysis of carbonate rocks. Lec, lab, field trip, for which fee is assessed. Field trip for which fee is assessed. Prereq: grad st; Geo Sci 511 or equiv

741 Carbonate Petrology and Diagenesis. 3 cr. G. Microscope study of carbonate sedimentary rocks, including their classification, genesis and diagenesis. Lec, lab. Prereq: grad st; Geo Sci 511 or cons instr

742 Sandstone Petrology. 3 cr. G. Microscope study of siliciclastic sedimentary rocks, including classification and gensis. Lec, lab. Prereq: grad st; Geo Sci 511 or cons instr; Geo Sci 637 recom

750 Contaminant Hydrogeology. 3 cr. G. Transport and fate of contaminants in aquifers, aquitards, and unsaturated geologic materials. Prereq: grad st; Geo Sci 464(C)

765 Gravity and Magnetism. 3 cr. G. Fundamentals of the earth's gravity and magnetic fields. (Geo Sci 665) Prereq: grad st; Geo Sci 100 or 101, Physics 207, & Math 232

769 Geophysical Digital Signal Processing. 3 cr. G. The application of spectral analysis, convalution, deconvalution, correlation, and filtering to the digital analysis of geophysical data with emphasis on seismic reflection data. Prereq: grad st; CompSci 151, Math 232

770 Introduction to Well Logging. 3 cr. G. The fundamentals of down hole geophysical well logging with application to petroleum exploration and hydrogeology. Lec, lab Prereq: grad st; Geo Sci 661

790 Graduate Seminar in the Geological Sciences: (Subtitled). 1-3 cr. G. Add'l prereqs announced in schedule of classes each time course offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

804 Current Topics in Biogeochemistry: (Subtitled). 1 or 2 cr. G. Impact of biological, geological, and chemical principles on selected interdisciplinary topics; scientific and mass media publications and results of new studies are critiqued. Jointly-offered with Bio Sci 804 & Chem 804; retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

805 Field and Lab Techniques in Biogeochemistry: (Subtitled). 1 or 2 cr. G. Field and sampling methodology and analytical techniques employed in the study of biogeochemistry. May include underwater technology, isotopes/tracers, statistics, and remote sensing. Jointly-offered with Bio Sci 805 & Chem 805. 4 lab/field hrs per cr. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

888 Candidate for Degree. 0 cr. G. Available for grad students who must meet minimum cr load requirement. Fee for 1 cr assessed. Prereq: grad st

990 Master's Thesis. 1-8 cr. G. - Prereq: grad st; cons instr & completed thesis proposal

997 Doctoral Externship. 1-12 cr. G. - Prereq: grad st; admis to candidacy for Ph.D.

998 Doctoral Dissertation. 1-12 cr. G. - Prereq: grad st; admis to candidacy for Ph.D.

999 Advanced Independent Reading. 1-4 cr. G. Independent geologic study. Retakable to 4 cr max. Prereq: grad st & cons instr

Cross-listed Courses

The following courses may also be used to fill certain curricular requirements of the graduate program in Geosciences.

Geography 475 Geography of Soils. 3 cr, U/G.

Geography 653 Soils of Wisconsin Field Study Tour. 2 cr, U/G.

GRADUATE STUDIES

Graduate School

Request information on-line

Courses

Graduate Studies (GRAD)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

801 Introduction To Academic Life. 1 cr. G. Overview of research, teaching, and service roles in higher education, including legal and ethical issues, the academic job market, and the tenure/promotion process. Designed for students contemplating careers in academic institutions. Prereq: grad st

803 Teaching & Learning in College: Reflections on Theory and Practice. 1 cr. G. Teaching and learning theories and strategies; reflection on personal beliefs and expectations about the role of teacher and student and understanding of professional practice and development in higher education. Prereq: grad st

HEALTH CARE ADMINISTRATION

School of Allied Health Professions

Request information on-line

Courses

Health Care Administration (HCA)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

337 (HIA 337) Introduction to Healthcare Databases and Technologies. 3 cr. U/G. Introduction to origins, sources and content of healthcare data; technologies used to manage and control healthcare databases. Prereq: jr st in HCA or cons instr, HCA 224 (HIA 224)(P)

420 Advanced Systems Thinking for Healthcare Leaders. 3 cr. U/G. An in-depth view of systems theory, Deming's system of profound knowledge, and Goldratt's theory of constraints and how these theories can improve healthcare organizations. Prereq: sr st; HCA 220(P) & 307(P); HCA 340(HIA 340)(P); Bus Adm 330(P); or cons instr

441 (HIA 441) Healthcare Information Systems Analysis and Design. 3 cr. U/G. Overview of health facility computerized information systems. Information systems theory, systems analysis, and implementation of computer systems from a managerial/planning perspective. Prereq: jr st in HCA or cons instr; HCA 337(HIA 337)(P)

442 (HIA 442) Healthcare Database Design and Management. 3 cr. U/G. Study of database structure, data models, and operations issues. Emphasis on data security, integrity, integration, and access. Healthcare database applications. Prereq: sr st in HCA or cons instr; HCA 441(HIA 441)(P)

497 Health Care Administration - Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance to Study Abroad Prog

590 Topics in Health Sciences. (Subtitled). 1-3 cr. U/G. Topics of current interest within the field of health sciences. The theme for each semester's offering will be posted. May be repeated with change in topic to max of 9 cr for grad students. Prereq: jr st; cons instr for grad cr

699 Advanced Independent Study. (Subtitled). 1-3 cr. U/G. - May be retaken with change in topic. Prereq: U: jr st, 2.5 gpa, writ cons instr; G: grad st; writ cons instr

700 Introduction to Health Care Informatics. 2 cr. G. An introduction to the history, theory, applications, and organizational context of health informatics. Prereq: grad st or cons instr

721 Health Information Technology Procurement. 2 cr. G. A study of the concepts related to acquisition of information technology, including evaluation, selection, and contracts. Emphasis on integration of information technology and strategic planning. Prereq: grad st; Bus Adm 749(C) or CompSci 557(C) or HCA 442 (HIA 442)(C) or cons instr

723 Health Care Systems Applications - Administrative and Clinical. 3 cr. G. A study of the administrative and clinical applications of health information systems with emphasis on content, functional and technical requirements. Prereq: grad st; Bus Adm 749(C) or CompSci 557(C) or HCA 442 (HIA 442)(C) or cons instr

890 Health Care Informatics Research and Thesis. 1-6 cr. G. Preparation of a thesis under the direction of the student's major professor. Prereq: grad st, cons instr

891 Health Care Informatics Professional Project. 3 cr. G. Preparation of a professional project under the supervision of the student's major professor. Prereq: grad st; cons instr

HEALTH CARE INFORMATICS

College of Health Sciences

Degrees Conferred: MS in Health Care Informatics

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cfprod.imt.uwm.edu/chs/ugp/hs/hciccurr.htm

The College of Health Sciences, Health Care Administration and Informatics Program, offers the Master of Science in Health Care Informatics (HCI).

The HCI Program is designed to meet the demand for highly trained health care informatics professionals by drawing on the experience and expertise of several UWM disciplines: Computer Science-College of Engineering and Applied Science (CEAS), Health Care Administration and Informatics . College of Health Sciences (CHS), Management Information Systems-School of Business Administration (SBA), and the School of Information Studies (SOIS). The curriculum covers several areas including: systems analysis and design, database and project management, decision support, network design, and health care applications and procurement.

The program is designed for full-time and part-time students who seek employment as health care informatics professionals within health care delivery systems, managed care organizations, and with health care computer vendors.

Graduate Faculty

(Professors' home departments, programs, or schools appear in parentheses)

PROFESSORS

Hemant Jain, Ph.D. Lehigh University (Business Administration)
Mary K. Madsen, Ph.D. University of Wisconsin-Madison (Health Care Administration and Informatics)
K. Ramamurthy, Ph.D. University of Pittsburgh (Business Administration)

ASSOCIATE PROFESSORS

Alexandra Dimitroff, Ph.D. University of Michigan (Information Studies)
Alex Koohang, Ph.D. Southern Illinois University at Carbondale (Information Studies)
John Lynch, Ph.D. Marquette University (Health Care Administration and Informatics)
Susan McRoy, Ph.D. University of Toronto (Electrical Engineering & Computer Science)
Derek Nazareth, Ph.D. Case Western Reserve University (Business Administration)
Ali Reza, Ph.D. University of Wyoming (Electrical Engineering & Computer Science)
Atish Sinha, Ph.D. University of Pittsburgh (Business Administration)
Hanh Trinh, Ph.D. Virginia Commonwealth University (Health Care Administration and Informatics)
Dietmar Wolfram, Ph.D. University of Western Ontario (Information Studies)

ASSISTANT PROFESSORS

Elizabeth Buchanan, Ph.D. University of Wisconsin-Milwaukee (Information Studies)
Dale Buechler, Ph.D. University of Utah (Electrical Engineering & Computer Science)
Amol Mali, Ph.D. Arizona State University (Electrical Engineering & Computer Science)
Kim Pemble, M.S. University of Minnesota (Health Care Administration and Informatics)
Scott Stegall, Ph.D. Virginia Commonwealth University (Health Care Administration and Informatics)
Vance Wilson, Ph.D. University of Colorado-Boulder (Business Administration)
Min Wu, Ph.D. University of North Carolina (Health Care Administration and Informatics)
Jin Zhang, Ph.D. University of Pittsburgh (Information Studies)

Master of Science in Health Care Informatics

Admission
An applicant must meet Graduate School requirements plus the following requirements to be considered for admission to the program:

- Submission of GRE scores taken within the past five years.
- Completion of the following foundation requirements or equivalents prior to admission into the program.* HCI foundation courses provide a basis for subsequent coursework:
    - HCA 102: Health Care Delivery in the U.S., 3 credits or BUS ADM 756: Health Care Delivery Systems, 3 credits
    - CL SCI 301-305: Human Pathophysiology, 5 credits or CL SCI 701 & 702: Human Pathophysiology I & II, 6 credits.
    - HMS 270: Statistics in the Health Professions, 3 credits or BUS ADM 210: Introduction to Management Statistics, 3 credits.

  *Individual course exemptions will be determined on a case-by-case basis. Credits earned in these courses do not count toward the degree.
- Basic proficiency in the use of word processing, spreadsheet, and database software.

Major Professor as Advisor
A student must have a major professor to advise and supervise the student.s studies as specified in Graduate School regulations. Initially the director of the HCI Program advises and supervises newly admitted students. Students are then assigned faculty advisors according to faculty advising loads.

Credits and Courses
The Master of Science in Health Care Informatics degree will be awarded upon completion of appropriate prerequisite course work and 35 credits of prescribed graduate study. Credits must be taken in each of nine Core Content areas, in an Emphasis Area, and in the project or thesis course.

Core Content: Completion of one of the following courses or equivalents in each of the core content areas is necessary to fulfill this requirement. Combined under-

graduate and graduate level (U/G) courses must be taken for graduate credit. Courses are 3 graduate credits unless otherwise noted.

Health Care Informatics
- HCA 700: Introduction to Health-Care Informatics, 2 cr

Programming
- BUS ADM 740: MIS Concepts & Languages
- BUS ADM 813: Object-Oriented & Visual Paradigms

Systems Analysis and Design
- BUS ADM 747: Systems Analysis & Design
- HCA 441: Healthcare Information Systems Analysis & Design, 3 cr (U/G)

Database Management
- BUS ADM 749: Data Management Systems
- COMPSCI 557: Introduction to Database Systems, 3 cr (U/G)
- COMPSCI 757: Data Base Organization and File Structure
- HCA 442: Healthcare Database Design & Management, 3 cr (U/G)

Project Management
- BUS ADM 748: Information Technology Project Management

Decision Support Systems
- BUS ADM 814: Intelligent Systems for Business
- COMPSCI 720: Computational Models of Decision Making

Network Design /Telecommunications
- BUS ADM 893: Infrastructure for Electronic Business
- COMPSCI 520: Computer Networks, 3 cr (U/G)
- L&I SCI 710: Electronic Networking and Information Services

Technology Procurement
- HCA 721: Health Information Technology Procurement, 2 cr (G)

Applications
- HCA 723: Health Care Systems Applications - Administrative & Clinical

Emphasis Areas: Students are expected to complete their training by choosing one (Thesis students) or two (Project Students) additional course(s) from one of the following emphasis areas: Technology, Decision Support Systems, or Administration. Combined undergraduate and graduate level (U/G) courses must be taken for graduate credit. Courses are 3 graduate credits unless otherwise noted.

Technology
- BUS ADM 740:MIS: Concepts and Languages, 2 cr (G)
- COMPSCI 431: Programming Languages Concepts, 3 cr (U/G)
- COMPSCI 469: Introduction to Computer Security, 3 cr (U/G)
- COMPSCI 536: Introduction to Software Engineering, 3 cr (U/G)
- COMPSCI 557: Introduction to Database Systems, 3 cr (U/G)
- COMPSCI 757: Database Organization & File Structure
- COMPSCI 759: Data Security
- L&I SCI 710: Electronic Networking and Information Services
- L&I SCI 782:Information Systems A & D

Decision Support Systems
- COMPSCI 710: Artificial Intelligence
- COMP SCI 720: Computational Models of Decision Making
- COMPSCI 723: Natural Language Processing
- COMPSCI 790: Advanced Topics in Computer Science
- COMPSCI 810: Knowledge Representation
- NURSING 727: Epidemiology in Community Health
- L&I SCI 817: Information Sources & Services

Administration
- BUS ADM 755: Health Care Administration
- BUS ADM 757: Managed Care & Integrated Health Networks
- COMPSCI 469: Introduction to Computer Security, 3 cr (U/G)
- COMPSCI 759: Data Security
- NURSING 727: Epidemiology in Community Health

Thesis/Project Options

Option A: Thesis Option

The thesis option requires students to plan, design, execute and report results of original applied or basic research. Students who choose the thesis option are responsible for identifying a HCAI major professor and a thesis committee. The thesis committee should consist of the major professor and at least two other graduate faculty. The student must pass a comprehensive oral examination in defense of the completed thesis. Six credits of HCA 990 may be applied toward the required 35 graduate credit minimum.

Option B: Professional Project Option

The project option requires students to apply Health Care Informatics research and theory to a professional situation. Students who choose the project option may count 3 credits of HCA 890 toward the 35 graduate credit minimum. The project must be written in compliance with program format requirements under the supervision of a HCAI major professor.

Program Completion Time Limit

The student must complete all degree requirements within five years of initial enrollment.

Courses

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

Business Administration (BUS ADM)

210 Introduction to Management Statistics. 3 cr. U. Introduces statistical principles and techniques necessary for management applications. Regression is presented to convey statistical thinking, modeling and analysis. Prereq: soph st; Math 211(C) or 231(C); Bus Adm 230(P)

740 Management Information Systems Concepts and Languages. 3 cr. G. Introduction to data organization, object-oriented design, construction and validation of application programs, development methodologies and control structures, illustrate with object programming language. Prereq: grad st

747 Systems Analysis and Design. 3 cr. G. Requirements definition, modeling, and specification of information systems. Object-oriented conceptual and logical design data management and distribution, user interface design. Prereq: grad st

748 Information Technology Project Management. 3 cr. G. Develop understanding of key knowledge areas, process groupings, and constraints of project management, project life-cycle, tools/techniques including wbs, metrics, earned value analysis, network diagrams. Prereq: grad st; Bus Adm 747(P)

749 Data Management Systems. 3 cr. G. Database modeling and design. Object oriented data modeling using uml. Logical and physical design considerations. Creating and loading databases. Data manipulation using sql. Manipulating databases from web. Prereq: grad st; Bus Adm 740 (P) & 747 (P)

755 Health Care Administration. 3 cr. G. Covers administrative structures and processes in health care institutions. Examines health care managers' opportunities and constraints in goal implementation in a dynamic health care environment. Prereq: grad st; Bus Adm 731(P) & 756(P)

756 Health Care Delivery Systems. 3 cr. G. Inter-organizational relationships of health care providers. Financing trends in medicare, medicaid, and private insurance. Managerial analysis of the economic and regulatory aspects of health care. Prereq: grad st

757 (effective 09/02/2003) Managed Care and Integrated Health Networks. 3 cr. G. Examines concepts and management of capitated and vertically integrated health care organizations; utilization control, risk and quality assessment, benefit design, pricing, management of clinical professionals. Prereq: grad st; Bus Adm 755(P) and 756(P)

813 Object-Oriented and Visual Paradigms. 3 cr. G. Object-oriented/visual concepts and use in management applications; object-oriented/visual design and development methodologies/languages; prototyping; implementation in an appropriate environment. Prereq: grad st; Bus Adm 740(P)

814 Intelligent Systems for Business. 3 cr. G. Knowledge-based systems for business domains. Foundations and pragmatic acquisition of business knowledge. Use of intelligent systems in data mining, intelligent agents, and knowledge management. Prereq: grad st

893 (effective 09/02/2003) Infrastructure for Electronic Business. 3 cr. G. Design and development of corporate technology infrastructure for electronic business. Open standards. Security, reliability, and performance considerations. Data management issues. Prereq: grad st

Clinical Lab Sciences (C L SCI)

301 Human Pathophysiology: Fundamentals. 1 cr. U. Pathological mechanisms underlying disease states, diagnosis and treatment of these disorders; topics cover cell injury, inflammation, immunopathology, repair, regeneration and fibrosis. Prereq: Bio Sci 203(P) or cons instr

302 Human Pathophysiology: Organ Systems I. 1 cr. U. Pathological mechanisms underlying disease states, diagnosis and treatment of these disorders; topics cover developmental and genetic disorders, neoplasms, nervous system, bones, joints, skeletal muscle. Prereq: C L Sci 301(C) or cons instr

303 Human Pathophysiology: Organ Systems II. 1 cr. U. Pathological mechanisms underlying disease states, diagnosis and treatment of these disorders; topics cover cardiovascular, respiratory, blood and lymphoid systems, diabetes. Prereq: C L Sci 301(C) or cons instr

304 Human Pathophysiology: Organ Systems III. 1 cr. U. Pathological mechanisms underlying disease states, diagnosis and treatment of these disorders; topics cover gastrointestinal tract, pancreas, kidney, liver/biliary system, female and male reproductive systems. Prereq: C L Sci 301(C) or cons instr; HlthSci 205

305 Human Pathophysiology: Organ Systems IV. 1 cr. U. Pathological mechanisms underlying disease states, diagnosis/treatment of these disorders. Topics: endocrine system, infectious and parasitic diseases, environmental and nutritional factors related to morbidity/mortality. Prereq: C L Sci 301(C) or cons instr

701 Human Pathophysiology I. 3 cr. G. An advanced course in basic pathological mechanisms underlying production of human disease and effects on selected organ systems. Prereq: grad st or cons instr

702 Human Pathophysiology II. 3 cr. G. A continuation of 701 dealing with pathogenesis of the major diseases of human organ systems. Prereq: grad st; C L Sci 701(P) or cons instr

Computer Science (COMPSCI)

431 (631) Programming Languages Concepts. 3 cr. U/G. Examination of abstract features of languages. Study of syntactic and semantic models; design and programming in procedural, object-oriented, functional and logical languages. Implementation methods. Prereq: soph st; grade of C or better in CompSci 252(P)

469 Introduction to Computer Security. 3 cr. U/G. Privacy and authenticity of data and programs, communication, operating systems, network and database security, computer viruses, cryptography, private and public key cryptosystems, protocols. Prereq: Jr st; C or better in both CompSci 217(P) & 252(P)

520 (620) Computer Networks. 3 cr. U/G. Layered network architecture, protocols, data transmission, local area networks, multiplexing and switching, routing flow and congestion control, internetworking, wireless networking, network reliability and security. Prereq: grade of C or better in CompSci 152(P); ElecEng 367(P) or grade of C or better in CompSci 215(P)

536 Introduction to Software Engineering. 3 cr. U/G. Software engineering, the software life cycle, qualities of software; design, specification and verification of software, programming environments and tools, object oriented programming. Prereq: jr st; grade of C or better in CompSci 252(P)

557 Introduction to Database Systems. 3 cr. U/G. General database system concepts. Physical data organization. Data models and database systems. Database design theory. Query optimization. Transaction management. Logic and database. Prereq: CompSci 215(P) & 252(P) or equiv

710 Artificial Intelligence. 3 cr. G. Ai programming, search techniques game playing, knowledge representation, knowledge acquisition, expert systems, selected topics from learning. Natural language understanding, vision and robotics. Not open to students who have cr in ElecEng 710, which is identical to CompSci 710. Prereq: grad st; CompSci 252(P) & 535(P)

720 Computational Models of Decision Making. 3 cr. G. Theoretical foundations

and practical problems of formulating and constructing computational models of decision making. Prereq: basic course in Probability or Statistics

723 Natural Language Processing. 3 cr. G. Principles and problems of natural language processing with emphasis on recent advances and open problems. Topics: lexicons, parsing, interpretation, discourse structure, generation, and collaborative interfaces. Not open to students with cr in CompSci 423. Prereq: grad st; CompSci 422(P) or 710(P)

757 Data Base Organization and File Structure. 3 cr. G. Introduction to automatic information organization and retrieval. Dictionary construction and operation, statistical and syntactic operations, performance evaluation of retrieval systems, design of query languages, models of database systems, database security. Prereq: grad st; CompSci 217(P) & 535(P)

759 Data Security. 3 cr. G. Protection of data in computer and communication systems, cryptography, classical one key and public key cryptosystems, database protection, operating system security. Prereq: grad st; CompSci 217(P) & 536(P)

790 Advanced Topics in Computer Science: (Subtitled). 3 cr. G. Discussion of special advanced topics in theoretical as well as applied areas in computer science. Retakable w/chg in topic to 9 cr max. Specific topics may be jointly-offered w/Philos. Prereq: grad st; add'l prereqs depending on topic.

810 Knowledge Representation. 3 cr. G. Study of the design and properties of formalisms for representing knowledge in computational systems. Topics include: first-order logic, nonmonotonic logic, uncertainty, time, space, beliefs, plans. Prereq: grad st; CompSci 710(P)

Health Care Administration (HCA)

102 Health Care Delivery in the United States. 3 cr. U. An introduction to health care delivery focusing on consumers, providers, organization, financing, quality and utilization of services, health planning, and political and governmental impacts. Prereq: none

441 Healthcare Information Systems Analysis and Design. 3 cr. U/G. Overview of health facility computerized information systems. Information systems theory, systems analysis, and implementation of computer systems from a managerial/planning perspective. Prereq: jr st in HCA or cons instr; HIA 337(P)

442 Healthcare Database Design and Management. 3 cr. U/G. Study of database structure, data models, and operations issues. Emphasis on data security, integrity, integration, and access. Healthcare database applications. Prereq: sr st in HCA or cons instr; HIA 441(P)

700 Introduction to Health Care Informatics. 2 cr. G. An Introduction to the history, theory, applications and organizational context of health informatics. Prereq: grad st or cons instr.

721 Health Information Technology Procurement. 2 cr. G. A study of the concepts related to acquisition of information technology, including evaluation, selection, and contracts. Emphasis on integration of information technology and strategic planning. Prereq: grad st; BUS ADM 749 or COMPSCI 557 or HCA 442 or cons instr.

723 Health Care Systems Applications - Administrative and Clinical. 3 cr. G. A study of the administrative and clinical applications of health information systems with emphasis on content, functional and technical requirements. Prereq: grad st; BUS ADM 749 or COMPSCI 557 or HCA 442 or cons instr.

890 Health Care Informatics Research Project. 1-3 cr. G. Preparation of a research project under the supervision of the student's major professor. Prereq: grad st

891 Health Care Informatics Research Seminar. 1 cr. G. Advanced seminar on the synthesis and critique of research literature. Prereq: grad st

930 Practicum in Health Care Informatics. 1-3 cr. G. Prereq: grad st

990 Health Care Informatics Research and Thesis. 1-6 cr. G. Preparation of a thesis under the direction of the student's primary advisor. May be repeated to max of 6 cr. Prereq: grad st

Human Movement Sciences (HMS)

270 Statistics in the Health Professions: Theory and Practice. 3 cr. U. Overview of statistical theory and practical application for health professionals. Includes problem solving strategies, descriptive and inferential techniques, and critical evaluation of research design. May be used to repeat HlthSci 207 & Hum Kin 370. Prereq: Math placement test score of 20 or Math proficiency

Library and Information Science (L & I SCI)

710 Electronic Networking and Information Services. 3 cr. G. Outlines basic concepts of communication technology, electronic networking, and available information resources and services for information professionals. Prereq: grad st; L&I Sci 510(P), 550(P) or cons instr

782 Information Systems: Analysis and Design. 3 cr. G. Analysis, design, and evaluation of information systems. The information system mission, goals and objectives are used to develop measures for judging system effectiveness and efficiency. Prereq: grad st; L&I Sci 550(P)

817 Information Sources and Services in the Health Sciences. 3 cr. G. A survey of the basic sources used to locate information in the fields of medicine, nursing, allied health and health care administration, along with an introduction to the traditional & innovative services offered by health science libraries. Prereq: grad st; L&I Sci 510(P) & 520(C)

Nursing (Nursing)

727 Epidemiology. 3 cr. G. Study of the distribution and determinants of health and disease in populations including related methods and application. Counts as repeat of FndNurs/HlthMnt/HlthRst 727. Prereq: grad st or cons instr

HEALTH SCIENCES

College of Health Sciences

Degrees Conferred: PhD in Health Sciences
Phone: (414) 229-5677
FAX: (414) 229-2619
E-mail: cah2@uwm.edu
Web site: www.uwm.edu/CHS

The PhD in Health Sciences is an interdisciplinary degree program designed to accomplish three major objectives: 1) provide advanced study and research training opportunities in the human health sciences; 2) produce cohorts of scholars capable of advancing the discovery, dissemination, and application of new knowledge in the health sciences; and 3) prepare future academic leaders in the health sciences. The curriculum includes a set of core courses providing a comprehensive structure for doctoral education including: 1) philosophical foundations; 2) concepts and practices that contribute to students. development as teaching scholars; 3) research methods; and 4) a series of seminars that build students. critical thinking skills, familiarity with a range of health sciences research topics, and experience in scholarly dialogue and presentation. In addition to the core courses, the program includes concentration and cross-disciplinary courses in areas such as disability and rehabilitation, diagnostic and biomedical sciences, human movement sciences, population health, and health administration/policy. Independent research and the dissertation will be structured according to the choice of specialization.

Graduate Faculty

(Professors' home departments appear in parentheses)

PROFESSORS

John Dellinger, Ph.D. University of Illinois (Health Sciences)
Margaret Duncan, Ph.D. Purdue University (Human Movement Sciences)
Cynthia Hasbrook, Ph.D. University of Illinois (Human Movement Sciences)
Mary K. Madsen, Ph.D. University of Wisconsin-Madison (Health Sciences)
Roger Smith, Ph.D. University of Wisconsin-Madison (Occupational Therapy)
Ann Snyder, Ph.D. Purdue University (Human Movement Sciences)

ASSOCIATE PROFESSORS

Robert Burlage, Ph.D. University of Tennessee (Health Sciences)
Ron A. Cisler, Ph.D. University of Wisconsin-Milwaukee (Health Sciences)
Janis Eells, Ph.D. University of Iowa (Health Sciences)
Marylou Gelfer, Ph.D. University of Florida (Communication Sciences and Disorders)
Carol Haertlein, Ph.D. Marquette University (Occupational Therapy)
Barbara Hart, Ph.D. University of Massachusetts (Human Movement Sciences)
Phyllis King, Ph.D. University of Wisconsin-Milwaukee (Occupational Therapy)
Randall Lambrecht, Ph.D. University of Wisconsin-Madison (Health Sciences)
Barbara Meyer, Ph.D. Michigan State University (Human Movement Sciences)
Paula Rhyner, Ph. D. Kent State University (Communication Sciences and Disorders)
Linda Sabatini, Ph.D. Indiana University (Health Sciences)
Hanh Trinh, Ph.D. Medical College of Virginia (Health Sciences)

ASSISTANT PROFESSORS

Anthony Azenabor, Ph.D. University of Benin (Health Sciences)
Jennifer Earl, Ph.D., Pennsylvania State University (Human Movement Sciences)
Kyle Ebersole, Ph.D. University of Nebraska (Human Movement Sciences)
Jen-Anne Lyons, Ph.D., Medical College of Wisconsin (Health Sciences)
Kristian O'Connor, Ph.D., University of Massachusetts-Amherst (Human Movement Sciences)
Scott Stegall, Ph.D. Virginia Commonwealth University (Health Sciences)
Pimjai Sudsawad, Sc.D. Boston University (Occupational Therapy)

Doctor of Philosophy in Health Sciences

Admission
To be considered for admission to the program applicants must satisfy all UWM Graduate School admission requirements in addition to the following College of Health Sciences requirements:

- Submission of scores on the General Test portion of the Graduate Record Examination; test taken within last five years.
- Master's degree or equivalent
- A sample of the applicant's written work that demonstrates his or her ability to conduct research and/or the ability to critically analyze the scholarly work of others.
- A letter outlining the applicant's academic and professional background, as well as specific interests and goals for the PhD program. This statement should be complete and thorough as it provides information that is central to the admission decision. This letter will serve in lieu of the Graduate School's "Reasons for Graduate Study" statement.
- Three letters of recommendation from individuals familiar with the applicant's intellectual achievement and potential.

For applicants from countries other than the U.S.A. whose first language is not English, a score of at least 250 on the computer-based (or 600 on the paper-based) Test of English as a Foreign Language (TOEFL) is required. A score of 6.5 on the International English Language Testing Systems (IELTS) examination will be accepted in lieu of the TOEFL.

The PhD Steering Committee will make an admission recommendation and forward it to the appropriate College of Health Sciences departmental Graduate Faculty or Executive Committee and identified Major Professor. The final admission decision is contingent upon approval by the departmental Graduate Faculty Committee or Executive Committee, the applicant.s Major Professor, and the Graduate School.

Prior to admission an eligible College of Health Sciences Graduate Faculty member must agree to serve as the applicant.s .major professor..

Reapplication
A student who has received a master's degree in Clinical Laboratory Sciences, Communication Sciences and Disorders, Kinesiology, or Occupational Therapy from the University of Wisconsin-

Milwaukee must formally reapply for admission to the Graduate School before continuing studies toward the Ph.D. degree.

Residence

The student must complete at least half of the graduate credits required for the PhD in residence at UWM in doctoral status. In addition, the student must complete at least 8 graduate credits in each of two consecutive semesters, or 6 or more graduate credits in each of three consecutive semesters, exclusive of summer sessions. In exceptional cases, modifications of the residence requirement may be requested, subject to the approval of the College of Health Sciences PhD Steering Committee and the Graduate School.

Course of Study

The Ph.D. program requires 72 credits beyond the Bachelor.s degree, including no more than 36 credits from a related master.s degree and/or other post-baccalaureate coursework. A student must complete a minimum of 36 credits at UWM including dissertation credits. Precise numbers of credits and actual course requirements will be determined after review of the applicant's previous coursework. The student plans an individual program of study in consultation with the Major Professor and Doctoral Committee that will include a set of core courses, an area of concentration, cross-disciplinary courses, electives, and the dissertation.

Core Courses (16 credits):

C L SCI 901 Philosophical Foundations of Health Research (3 credits)

HUM KIN 702 Multivariate Analysis in the Health Sciences (3 credits)

C L SCI 910 Advanced Graduate Seminar (1 credit, repeated 4 times)

OCCTHPY 900 Teaching, Learning & Educational Leadership in the Health Sciences (3 credits)

A statistical analysis, qualitative analysis, or research methods course approved by the student.s Major Professor (3 credits)

Area of Concentration (minimum of 9 credits): Courses related to the area of concentration will require students to draw upon the strengths and expertise of the faculty and curriculum in an interdisciplinary and collaborative manner. The basis of scientific exploration will be premised on the model adapted by the World Health Organization (WHO) which defines three levels contributing to the concept of health: 1) intact body structures and unimpaired host functions at the molecular, cellular or organ system level, 2) ability to participate in activities and roles at the level of the living organism or individual person, and 3) a physical and social environment that influences health at the level of society and populations.

Cross Disciplinary Courses (minimum of 6 credits): Cross-disciplinary courses in areas such as disability and rehabilitation, diagnostic and biomedical sciences, human movement sciences, and population health and health administration/policy, will provide a unique framework and understanding for specific health states, outcomes, determinants, and environmental influences. Each of these specialties reflects trends and needs in health-related fields as well as the current expertise among faculty in CHS.

Electives (6 credits): Elective courses relevant to the student's program of study will be selected from within CHS and from departments across campus. This cross-disciplinary approach will encourage collaboration and interaction, and provide breadth and depth to a student's focused course of study.

Dissertation (minimum of 12 credits): The last component of the degree requirements, independent research and dissertation, will be structured by the choice of concentration. The dissertation will consist of focused, independent research that contributes to the existing body of knowledge.

Foreign Language

Foreign language coursework is optional, depending upon the recommendation of the student's Major Professor.

Doctoral Committee

In consultation with the Major Professor, each student is responsible for selecting a Doctoral Committee before completing 12 credits in the doctoral program. The doctoral committee shall consist of the student.s Major Professor and four other Graduate Faculty including at least one from: 1) the area of concentration; 2), a supporting area within the College; and 3) a supporting area from outside the College. Upon formation of the Doctoral Committee, the student must file a "Doctoral Committee" form with his/her Major Professor which is to be subsequently filed with the CHS - Ph.D. Steering Committee.

Doctoral Preliminary Examinations

The doctoral preliminary examinations must be completed within three years of initial enrollment in the program. Students may receive up to two additional semesters to complete the preliminary examinations with approval of the CHS . PhD Steering Committee. The examinations consist of a written examination designed to demonstrate the breadth of a student.s knowledge and the ability to conduct advanced research, and an oral exam covering issues raised during the written exam and/or focusing on the proposed dissertation research. The oral exam must follow the written exam within 10 days. Students take the preliminary examinations after completing all doctoral course work or with no more than three credits of doctoral course work remaining. Students cannot take the examinations if they have any incomplete or unreported grades or a GPA lower than 3.0. Students who fail the preliminary examinations may not proceed to the dissertation. The examinations may be retaken only once.

Dissertation Proposal

Upon successful completion of the preliminary examinations, the student submits a written dissertation proposal and delivers an oral presentation of the proposed research to the Dissertation Committee. The proposal takes the form of a scholarly document outlining the problem, its background and significance, summarizing relevant literature, and outlining the proposed research methods. It should include a tentative timetable and outline any required resources (space, equipment, etc.). Members of the student.s Dissertation Committee must approve the dissertation proposal. Acceptance of the dissertation proposal establishes an agreement between the student and the Dissertation Committee as to the nature and scope of the research to be conducted, and the procedure for completing the dissertation. Upon Dissertation Committee approval, research proposals that use animal or human subjects must receive approval from the Animal Care and Use Committee or the Institutional Review Board.

Dissertator Status

Specific requirements which must be completed before a doctoral student qualifies for dissertator status are described in

the Graduate Student and Faculty Handbook and Doctoral Student and Advisor Manual.

Dissertation
The dissertation is a major piece of original research representing a substantial contribution to the existing body of knowledge. The original research findings embodied in the dissertation should be acceptable for publication in a refereed journal. The student's Major Professor and Dissertation Committee provide guidance in completing the dissertation.

Dissertation Defense
Once the dissertation document meets with Dissertation Committee approval, an oral defense takes place. At the time of the defense, the dissertation must be of publication-quality (as judged by the Dissertation Committee). The dissertation defense will be held in an open forum after which the Dissertation Committee will meet in closed session to make a decision on degree conferral. The time and place of the public presentation must be announced with adequate time (i.e., at least one week prior to the defense) so that faculty and students may attend.

Time Limit
The student must complete all requirements for the degree within seven years of the date of initial enrollment in the program. Upon successfully passing the preliminary examinations, the student must complete all requirements for the degree within four years.

Courses

Courses numbered 300 to 699 are Undergraduate/Graduate. Courses numbered 700 and above are Graduate only.

Clinical Lab Sciences (C L SCI)

610 Pharmacology. 3 cr. U/G. Lectures on pharmacokinetics, mechanisms of action, and physiological effects of toxic and therapeutic substances. Prereq: jr st, Chem 501(P), or cons instr

620 Forensic Pathology. 2 cr. U/G. An overview of medicolegal death investigation from the perspective of the forensic pathologist. Prereq: jr st; Bio Sci 203(P)

705 Molecular Pathology. 3 cr. G. Principles, methods, and applications of nucleic acid-based technologies in pathology and laboratory medicine. Counts as repeat of C L Sci 590 with similar topic. Prereq: grad st; cons instr

715 Medical Laboratory Management and Education. 2 cr. G. Introduction to management and education theory and application to the clinical laboratory. Prereq: grad st or cons instr

756 Current Concepts in Leukemia. 4 cr. G. An overview of various forms of human acute and chronic leukemia. Emphasis on cell markers and cytomorphology, clonal etiology and kinetics. Prereq: grad st & cons instr

772 Antimicrobial Agents and Chemotherapy. 3 cr. G. A survey of the effects of antibiotics and chemotherapeutic agents in microorganisms and man. Mode of action, principles of antimicrobial chemotherapy application to basic research. Prereq: lc & la course in medical microbiology; grad st or cons instr

775 Mechanisms of Infectious Disease. 2 cr. G. Review of current molecular and cellular aspects of infectious disease as related to microbial determinants of virulence and the host response. Prereq: lc & la course in medical microbiology; grad st or cons instr

782 Advanced Immunology. 3 cr. G. Cellular basis of the immune response with emphasis on immunoregulation and clinical disease manifestations resulting from altered cellular immune function. Prereq: grad st; course in immunology; cons instr

910 Advanced Seminar in Health Sciences. 1 cr. G. Faculty, students, and guests present research topics in the Health Sciences. Retakable to 4 cr max. Prereq: grad st; cons instr

990 Research and Dissertation. 1-6 cr. G.> Preparation of a dissertation under the direction of the student's primary and secondary advisors. Prereq: grad st; cons instr

Communication Sciences and Disorders (COMSDIS)

701 Research Design and Methods in Communication Sciences and Disorders. 3 cr. G. Introduction to design and implementation of quantitative research, including selection of research topics, literature searches, developing research hypotheses, hypothesis testing, and presentation of findings. Prereq: grad st; cons instr

702 Clinical Phonology and Articulation. 3 cr. G. Study of normal and disordered aspects of articulation and phonology. Emphasis on theoretical and practical considerations for clinical assessment and treatment. Prereq: grad st; cons instr

703 Voice Disorders. 3 cr. G. Diagnosis and treatment of hyperfunctional disorders, psychogenic voice disorders, organic diseases of the larynx, neurogenic voice disorders, cleft palate and resonance disorders, and alaryngeal speech. Prereq: grad st; cons instr

704 Speech Fluency and Stuttering. 3 cr. G. Theory and research related to the nature and treatment of stuttering. Discussion of factors important to the clinical management of fluency in children and adults. Prereq: grad st; cons instr

705 Aphasia in Adults. 3 cr. G. Nature of aphasia and related communication disorders. Study of pertinent diagnostic and prognostic techniques and therapeutic procedures. Prereq: grad st; cons instr

706 Language Assessment and Intervention in Children. 3 cr. G. Application of various theoretical models and research perspectives to the assessment and treatment of children with language impairments. Prereq: grad st; cons instr

708 Evaluation and Diagnosis in Speech-Language Pathology. 3 cr. G. Processes in speech-language assessment: case histories, test administration and scoring, informal assessment, interpretation of results, and report writing. Observations required. Prereq: grad st; cons instr

709 Evaluation and Management of Swallowing Disorders. 3 cr. G. Study of normal and abnormal swallowing across the lifespan, with emphasis on etiologies, clinical and instrumental evaluation techniques, and management. Prereq: grad st; ComSDis 705(P); cons instr

710 Motor Speech Disorders. 3 cr. G. Basic neurological substrates of the dysarthrias and apraxia, differential diagnosis and treatment of acquired and developmental communication disorders asso-

ciated with apraxia and dysarthria. Prereq: grad st; ComSDis 703(P) & 705(P)

717 Special Populations in Communication Disorders. 2 cr. G. Seminar reviewing the current literature on selected populations of individuals with communication disorders and the implications of this literature on clinical practice. Prereq: grad st

801 Applied Speech Science. 3 cr. G. Advanced study of physiological, acoustical, and perceptual perspectives of normal and abnormal speech production mechanisms; laboratory experience with speech science instrumentation for research/clinical application. Prereq: grad st; cons instr

802 Seminar in Applied Phonology: (Subtitled). 1 cr. G. Specific topic and any additional prerequisites announced in the Timetable each time the course is offered. May be repeated w/chg in topic to 7 cr max. Prereq: grad st; cons instr

804 Seminar in Stuttering and Fluency: (Subtitled). 1 cr. G. Specific topic and any additional prerequisites announced in the Timetable each time the course is offered. May be repeated w/chg in topic to 7 cr max. Prereq: grad st; cons instr

908 Instrumentation Laboratory. 1 cr. G. Hands-on experience with speech science instrumentation for acoustic analysis of voice, prosody, and nasal resonance. Prereq: grad st; ComSDis 801(P) & conc reg in ComSDis 902 (voice clinic) or cons instr

910 Seminar in Communication Sciences and Disorders: (Subtitled). 1-4 cr. G. - May be repeated with change in topic to max of 8 cr. Prereq: grad st; cons instr

999 Independent Studies. 1-3 cr. G. Independent pursuit of a creative project designed by the student and supervised by a graduate staff member. Prereq: grad st; cons grad advisor

Health Care Administration (HCA)

700 Introduction to Health Care Informatics. 2 cr. G. An introduction to the history, theory, applications, and organizational context of health informatics. Prereq: grad st or cons instr

721 Health Information Technology Procurement. 2 cr. G. A study of the concepts related to acquisition of information technology, including evaluation, selection, and contracts. Emphasis on integration of information technology and strategic planning. Prereq: grad st; Bus Adm 749(C) or CompSci 557(C) or HIA 442(C) or cons instr

723 Health Care Systems Applications - Administrative and Clinical. 3 cr. G. A study of the administrative and clinical applications of health information systems with emphasis on content, functional and technical requirements. Prereq: grad st; Bus Adm 749(C) or CompSci 557(C) or HIA 442(C) or cons instr

Human Movement Sciences (HUM KIN)

702 Statistical Analysis in the Health Sciences. 3 cr. G. Univariate, bivariate, and multivariate analyses as they apply to health science research. Prereq: grad st; intro level statistics course at U/G or G level

725 Interdisciplinary Themes in Biomechanics. 3 cr. G. Emphasis on biomechanical research themes of an interdisciplinary character. Readings drawn from primary research literature. Prereq: grad st; Hum Kin 520(P) or cons instr

730 Advanced Metabolic/Endocrine Physiology of Exercise. 3 cr. G. Study of muscle function, fuel utilization, endocrine function and temperature regulation during exercise and training. Prereq: grad st; Hum Kin 530

731 Advanced Cardiorespiratory Physiology of Exercise. 3 cr. G. Examination of selected mechanisms regulating cardiovascular and pulmonary adjustments to acute and chronic exercise. Prereq: grad st; Hum Kin 330; Hum Kin 530(R) & Bio Sci 715(R)

761 Concepts of Human Motor Control. 3 cr. G. A systematic examination of neuromotor control mechanisms and critical review of research in human motor behavior focusing on variables limiting or facilitating performance and/or skill acquisition. Prereq: grad st, Hum Kin 561(P) or cons instr

762 Research Practicum in Motor Control. 3 cr. G. Demonstration/participation laboratory focused on human motor control experimental design. Topics include sampling, subject protection, techniques for quantification of motor performance characteristics and neuromuscular correlates. Prereq: grad st; Hum Kin 561(P) or cons instr

799 Independent Reading. 1-3 cr. G. Independent study of a topic selected by the student in consultation with the supervising graduate faculty member. May be repeated with change in topic to max of 6 cr. Prereq: grad st; cons instr

822 Biomechanics Research Practicum. 3 cr. G. Addresses research design issues, data collection and reduction techniques. Validity, reliability, and theory of biomechanics instrumentation systems (videography, cinematography, electromyography, force/torque transduction). Prereq: grad st; Hum Kin 725(P) or cons instr

850 Seminar in Psychological Aspects of Physical Activity: (Subtitled). 3 cr. G. Advanced seminar on selected topics in the psychology of physical activity. May be repeated with change in topic to max of 6 cr. Prereq: grad st; Hum Kin 550(P) or cons instr

851 Psychological Factors in Preventive and Rehabilitative Exercise. 3 cr. G. Advanced seminar in exercise psychology. Personal and social psychological factors relevant to preventive and rehabilitative exercise contexts are examined. Prereq: grad st; Hum Kin 550(P) or cons instr

860 Seminar in Motor Control: (Subtitled). 3-6 cr. G. Advanced seminar on selected topics related to motor control and acquisition of movement skill. May be repeated with change of topic to max of 6 cr. Prereq: grad st; Hum Kin 761(P); cons instr

870 Seminar in Sociological Aspects of Physical Activity: (Subtitled). 3 cr. G. Advanced seminar on selected topics in sociology of physical activity. May be repeated with change in topic to max of 6 cr. Prereq: grad st; Hum Kin 570(P) or cons instr

871 Socialization and Physical Activity. 3 cr. G. Advanced seminar on research relevant to the development/lack of development of physically active lifestyles. Prereq: grad st; Hum Kin 870(P) or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

891 Research Seminar. 3 cr. G. Advanced seminar on the synthesis and critique of research literature within the student's primary and secondary subdisciplines. Not open to option A students. Prereq: grad st; completion of all or conc reg in remaining coursework for degree

930 Practicum and Seminar in Exercise Physiology. 3 cr. G. Evaluation of current research and methodology in exercise physiology. Prereq: grad st; Hum Kin 730 or 731

990 Research and Thesis. 1-6 cr. G. Preparation of a thesis under the direction of the student's primary and secondary advisors. May be repeated to max of 6 cr. Not open to students selecting options B or C. Prereq: grad st

Occupational Therapy (OCCTHPY)

610 Advances in Occupational Science. 3 cr. U/G. Explores origins and recent developments in occupational science. Examines the multidimensional nature of occupation; the dynamics of person, environment, occupation interaction; applications to practice. Prereq: sr st in Baccalaureate OccThpy prog or grad st

701 Advanced Application of Instrumentation Theory in Occupational Therapy. 3 cr. G. Reviews and critiques measurement theories underlying instruments used by therapists. Includes traditional theory and contemporary computer-based methods which diverge from classical psychometric theory. Prereq: grad st

702 Research in Occupational Therapy. 3 cr. G. Study of research design pertinent to various areas of clinical practice in occupational therapy. Development of literature review and hypothesis for project/thesis. Prereq: grad st; Occthpy 701(P); Quantitative & Qualitative Research courses or equiv; cons instr

720 Advanced Application of Occupational Therapy Theory. 3 cr. G. Critical analysis of occupational therapy theories as they relate to practice issues, strategies, and research. Prereq: grad st

730 Industrial Rehabilitation. 3 cr. G. Examines current practices and future trends in the prevention and management of work-related disorders within the context of industry. Prereq: grad st

740 Advanced Topics in Pediatric Occupational Therapy Practice. 3 cr. G. Examines current practices and future trends for evaluation and treatment of occupational performance between birth and 21 years of age within family and community contexts. Prereq: grad st

750 Computer Applications in Occupational Therapy Practice. 3 cr. G. Exploration of the current and future uses of computer technology in the field of occupational therapy. Completion of a student-designed software application. Prereq: grad st

760 Assistive and Rehabilitation Technology. 3 cr. G. Surveys the use of assistive technology devices and applications for people with motor, sensory, and cognitive impairments. Prereq: grad st; college-level computer course or equiv or cons instr

786 Applied Biostatistics in Ergonomics. 3 cr. G. Statistical methods used in ergonomic studies to analyze, summarize, and report measurements and data. 2 hr lec & 2 hr lab/week. Jointly offered with & counts as repeat of Nurs 786 & Ind Eng 786. Prereq: grad st; Ind Eng 580; a course in statistics or cons instr

787 Issues in Ergonomics: Epidemiology. 1 cr. G. Concepts in epidemiological studies employed to study risk factors in ergonomic research. Design considerations, strengths and weaknesses of different types of studies. Jointly offered with & counts as repeat of Nurs 787 & Ind Eng 787. Prereq: grad st; Ind Eng 580; a course in statistics or cons instr

788 Legal Issues and Regulatory Agencies in Ergonomics. 1 cr. G. Understanding of ergonomic regulations, regulatory sets, and agencies' and workers' compensations laws. Jointly offered with & counts as repeat of Nurs 788 & Ind Eng 788. Prereq: grad st; Ind Eng 580(P); a course in statistics or cons instr

790 Design Project. 2-3 cr. G. Integration and application of concepts learned in other ergonomic courses to analyze and abate ergonomic hazards in a scientific manner. Jointly offered with & counts as repeat of Nurs 790 & Ind Eng 790. Prereq: grad st; Ind Eng 780(P), 783(P), 786(P), 788(P) or cons instr

HISTORY

College of Letters and Science

Degrees Conferred: MA, PhD in History
Phone: (414) 229-4361
E-mail: history@uwm.edu
Web site: www.uwm.edu/Dept/History

The Department of History offers M.A. and Ph.D. programs that prepare students for careers in teaching, in historical research, and in archives, historical agencies, museums, libraries and government. The Department offers a wide array of geographically, chronologically and thematically defined courses.

At the master's level, the Department offers four options: (a) a general degree in History; (b) a specialization in Public History for those interested in areas such as museum work, archival administration and historic preservation; (c) a coordinated Master of Arts/Master of Library and Information Science degree program; (d) a specialization in Urban Historical Studies for students who intend to pursue a Ph.D. in Urban Studies or in Urban History.

At the doctoral level, the Department offers three areas of concentration: Modern Studies, Global History and Urban History.

The Department also participates in the interdisciplinary master's and doctoral programs in Urban Studies. For more information, see the Urban Studies section of this Bulletin.

Graduate Faculty

PROFESSORS

Anderson, Margo J., Ph.D., Rutgers University
Fetter, Bruce S., Ph.D., University of Wisconsin-Madison
Hoeveler, J. David, Jr., Ph.D., University of Illinois
Howland, Douglas, Ph.D., University of Chicago
Jeansonne, Glen, Ph.D., Florida State University
Merrick, Jeffrey, Ph.D., Yale University
Meyer, Stephen, Ph.D., Rutgers University, Chair
Pycior, Helena M., Ph.D., Cornell University
Ruggiero, Kristin, Ph.D., Indiana University
Schroeder, John H., Ph.D., University of Virginia
Shashko, Philip, Ph.D., University of Michigan
Sherman, Daniel, Ph.D., Yale University
Wiesner-Hanks, Merry E., Ph.D., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Austin, Joe, Ph.D., University of Minnesota
Buff, Rachel, Ph.D., University of Minnesota
Carlin, Martha, Ph.D., University of Toronto
Gordon, Michael A., Ph.D., University of Rochester
McBride, Genevieve, Ph.D., University of Wisconsin - Madison
Pease, Neal H., Ph.D., Yale University
Renda, Lex, Ph.D., University of Virginia
Rodriguez, Joseph A., Ph.D., University of California-Berkeley

ASSISTANT PROFESSORS

Alinder, Jasmine, Ph.D., University of Michigan
Amster, Ellen, Ph.D., University of Pennsylvania
Galvao-Sobrinho, Carlos, Ph.D., Yale University
Hansen, Anne, Ph.D., Harvard University
Jones, William, Ph.D., University of North Carolina-Chapel Hill
McGuinness, Aims, Ph.D., University of Michigan
Miller, Cary, Ph.D., University of North Carolina
Seligman, Amanda, Ph.D., Northwestern University

Master of Arts in History

Admission
To be considered for admission, an applicant must meet Graduate School requirements, have an undergraduate minor or 18 credits in History or equivalent preparation, and submit the following materials listed below.

Submit the following to: Admissions, UW-Milwaukee Graduate School, P.O. Box 340, Milwaukee, WI 53201:

- Completed Graduate School *Application for Admission* and required application fee. The application may be submitted electronically at: www.uwm.edu/Dept/Grad_Sch/Prospective/onlineapp.html
- Two official transcripts from each academic institution the applicant has attended.
- A statement of purpose outlining the applicant's reasons for graduate study in History.

Send the following directly to the Director of Graduate Studies, UW-Milwaukee History Department, P.O. Box 413, Milwaukee, WI 53201:

- Two letter of recommendation from persons familiar with the applicant's scholastic achievement and potential
- A sample of the applicant's written work that demonstrates his or her ability to conduct historical research and/or the ability to analyze critically the work of others.
- Scores on the Graduate Record Examination (General Test only).

Applicants may be admitted with course deficiencies provided that the deficiencies amount to no more than two courses. The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted toward the degree.

Advising
The Director of Graduate Studies provides initial advising for students in selecting courses and assists in selecting a Major Professor for long-term advising; the Director may assign a provisional graduate advisor before students select a Major Professor. Students are required to consult periodically with, and have their schedules approved by, the Director of Graduate Studies, the provisional advisor, or the Major Professor. The Major Professor normally serves as the chair of the student's academic review and supervises either the writing of the student's thesis or the student's reading for the comprehensive exam.

General History

Option A: Thesis Option

Credits and Courses
Minimum degree requirement is 24 graduate credits, at least 21 of which must be taken in history. Required credit distribution: 3 credits in 712(Historiography and Theory of History) or 713 (Historical Research Methods); 6 credits in two colloquia; 6 credits in two seminars; 6 credits for thesis; remaining 3 credits in electives selected in consultation with the student's advisor.

Academic Review and Thesis Prospectus
Within the first semester after completing 9 credits (including two of the following courses: 712, 713, a colloquium and/or seminar), Option A students are subject to an academic review. The Review is a one- to two-hour meeting involving the student, the student's Major Professor and two other members of the History Graduate Faculty who will serve as secondary readers of the student's thesis. With the assistance of his or her Major Professor, the student must prepare a thesis prospectus in advance of the Review. The Review involves an evaluation of the student's academic progress in master's course work, two unrevised course papers, and the thesis prospectus.

Thesis
The student must write an acceptable thesis.

Thesis Defense
The student must pass an oral examination in defense of the thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Option B: Non-Thesis Option

Credits and Courses
Minimum degree requirement is 24 graduate credits, 18 of which must be taken in History. Required credit distribution: 3 credits in 712 (Historiography and Theory of History) or 713 (Historical Research Methods); 6 credits in two colloquia (800 numbers); 6 credits in two seminars (900 numbers); 9 credits in electives selected in consultation with the student's advisor.

Academic Review and Comprehensive Examination Reading List
Within the first semester after completing 9 credits (including two of the following courses: 712, 713, a colloquium and/or seminar), Option B students are subject to an academic review. The Review is a one- to two-hour meeting involving the student, the student's Major Professor and two other members of the History Graduate Faculty who will serve as examiners for the student's comprehensive exam. With the assistance of his or her Major Professor, the student must prepare a reading list for the comprehensive exam in advance of the Review. The Review involves an evaluation of the student's academic progress in master's course work, two unrevised course papers, and the reading list for the comprehensive exam.

Thesis
Not required.

Comprehensive Examination
The student must pass a written and oral comprehensive examination.

Time Limit
The student must complete all degree requirements within five years of initial enrollment

Public History Specialization

Credits and Courses
Minimum degree requirement is 36 graduate credits, 18 of which must be taken in general history courses, the remaining 18 in public history courses. The 18 credits in general history must be distributed in the following way: 6 credits in colloquia, 6 credits in seminars, 3 credits in History 715 (Research Methods in Local History), and 3 credits in electives.

Of the 18 credits in public history courses, the following 9 credits are required: 3 credits in History 700 (Introduction to Public History) and 6 credits in History 701 (Internship in Public History). Public history students must take History 700 in the first semester of their first year. The remaining 9 credits in public history must be selected from courses that pertain to the area in which the student wishes to specialize.

Students in Museum Studies must account for the 3 elective credits in general history and the 9 elective credits in Public History by taking the Anthropology four-course museum sequence, Anthro 720 (History and Theory of Museums), 721 (Administration and Organization of Museums), 722 (Museum Exhibits), and 723 (Museum Curation).

For students interested in careers as archivists, the 9 credits of electives should be selected from the following courses:
L&I Sci 681 Using Achives: The Value of Primary Sources in the Information Age, 3 cr
L&I Sci 775 Modern Archives Administration, 3 cr
L&I Sci 777 Seminar in Modern Archves Administration, 3 cr
L&I Sci 778 Archival Outreach: Programs and Services, 3 cr
L&I Sci 779 Arrangement and Description in Archives, 3 cr
L&I Sci 790 Fieldwork in Archives and Manuscripts, 3 cr

Students interested in careers in historic preservation are advised to take at least three of the following courses:

- ArtHist 459 American Architecture
- ArtHist 461 Early Modern Architecture in the Midwest
- ArtHist 701 Colloquium in Architectural History
- Arch 531 Historic Concepts of Architecture
- Arch 551 American Vernacular Architecture
- Arch 560 Introduction to Historic Preservation
- Arch 760 History of Building Technology

Multi-Disciplinary Historical Preservation Option
The minimum degree requirement is 48 graduate credits, 24 of which must be in history courses, with the remaining 24 selected from historic preservation courses in Art History and Architecture.

The 24 credits in history must be distributed as follows: 6 credits in colloquia, 6 credits in seminars, 3 credits in History 700 (Introduction to Public History), 3 credits in History 715 (Research Methods in Local History), and 6 credits in History

701 (Internship in Public History).

Of the 24 credits in historic preservation courses, 12 credits are required:

- Arch 300 Early Modern Architecture in the Midwest, 3 credits;
- Arch 531 Historical Concepts of Architecture, 3 credits;
- Arch 551 American Vernacular Architecture, 3 credits;
- Arch 560 Introduction to Historic Preservation, 3 credits.

The remaining 12 credits must be selected from the following courses:

- ArtHist 441 Early Modern Architecture in the Midwest, 3 credits;
- ArtHist 459 American Architecture, 3 credits;
- ArtHist 701 Colloquium in Architectural History: (Subtitle), 3 credits
- Arch 533 Topics in Architectural Theory, 3 credits;
- Arch 561 Measured Drawing for Architects, 3 credits;
- Arch 562 Preservation Technology Laboratory, 3 credits.

Internship
All internships must be approved by the Public History Coordinator and are to be supervised and evaluated by the Coordinator and the host institution. All students must write a substantial paper as a part of their internship experience.

Thesis
A thesis is not required, but with the approval of the Public History Coordinator a student may write a thesis in public history, which will add 6 credits to the 36 credit Public History specialization. Public History students who write a thesis are subject to the Academic Review and Thesis Prospectus requirements outlined above for the General History Option A.

Comprehensive Examination
Not required.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Coordinated MA/MLIS Program

Students in this program concurrently pursue a Master of Arts in History and a Master of Library and Information Science degree, which are awarded simultaneously.

Credits and Courses
Within the coordinated degree program, the minimum requirement for the M.A. in History is 24 graduate credits. Course distribution requirements are the same as those for General History Option A or Option B above, but the 3 elective credits for Option A and 6 of the elective credits for Option B can be selected from L&I Sci 681 (Using Archives: The Value of Primary Sources in the Information Age), L&I Sci 775 (Modern Archives Administration), L&I Sci 777 (Seminar in Modern Archives Administration), L&S Sci 778 (Archival Outreach: Programs and Services), L&S Sci 779 (Arrangement and Description in Archives), and L&I Sci 790 (Fieldwork in Archives and Manuscripts). These elective credits also can be used to satisfy degree requirements for the MLIS. For both Option A and Option B, at least 18 credits must be taken in History graduate courses.

Academic Review and Comprehensive Examination Reading List (Option B)
Within the first semester after completing 9 credits (including two of the following courses: 712, 713, a colloquium and/or seminar), MA/MLIS students are subject to an academic review. The Review is a one- to two-hour meeting involving the student, the student's Major Professor, and two other members of the History Graduate Faculty who will serve as examiners for the student's comprehensive exam. With the assistance of his or her Major Professor, the student must prepare a reading list for the comprehensive exam in advance of the Review. The Review involves an evaluation of the student's academic progress in master's course work, two unrevised course papers, and the reading list for the comprehensive exam.

Comprehensive Examination
The student must pass a written and oral comprehensive examination.

Thesis (Option A)
Not required, but with the approval of the Director of Graduate Studies in History, the student may substitute a thesis for the comprehensive examination requirement. MA/MLIS students who write a thesis are subject to the Academic Review and Thesis Prospectus requirements outlined above for Option A.

Time Limit
The student must complete all requirements for the coordinated degree within seven years of initial enrollment.

Urban Historical Studies Specialization

This specialization combines historic approaches with those of the social sciences in studying urban processes, organizations, and society. It is designed to meet the needs of students who intend to enter the interdisciplinary Urban Studies PhD program or a similar program after completion of the Master of Arts degree.

Credit and Courses
The minimum degree requirement is 27 graduate credits distributed in the following manner:

Hist 712 Historiography and Theory of History, 3 cr,
or
Hist 713 Historical Research Methods, 3 cr;
Hist 595 The Quantitative Analysis of Historical Data, 3 cr;
History colloquia (two courses, 800 numbers), 6 cr;
History seminars (two courses, including Hist 927 Seminar in American Urban History), 6 cr.
9 credits (3 courses) in urban studies graduate courses to familiarize students with the following:

a. Contemporary urban social theory - select one course from:
   Sociol 770 Urban Sociology
   Sociol 775 Social Change and Social Evolution
   UrbStd 911 Urban Development and Redevelopment
   UrbStd 945 The Internal Structure of the City

b. Social science research methods - select one course from:

Sociol 750 Research Methods in Sociology
UrbStd 734 Urban Demography
UrbStd 921 Research Methods in Urban Affairs

c. Urban studies research seminar: Select an appropriate Urban Studies seminar from numbers 900 to 971
or
Sociol 927 Seminar in the Sociology of Contemporary Institutions

Academic Review and Comprehensive Examination Reading List
Within the first semester after completing 9 credits (including two of the following courses: 712, 713, a colloquium and/or seminar), Urban Historical Studies students are subject to an academic review. The Review is a one- to two-hour meeting involving the student, the student's Major Professor and two other members of the History Graduate Faculty who will serve as examiners for the student's comprehensive exam. With the assistance of his or her Major Professor, the student must prepare a reading list for the comprehensive exam in advance of the Review. The Review involves an evaluation of the student's academic progress in master's course work, two unrevised course papers, and the reading list for the comprehensive exam.

Thesis
Not required

Comprehensive Examination
The student must pass a written and oral comprehensive examination.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in History

Admission
To be considered for admission, an applicant must meet Graduate School admission requirements, hold a master's degree in history or a related field, and submit the materials listed below.

Submit the following to: UW-Milwaukee Graduate School, P.O. Box 340, Milwaukee, WI 53201.

- Completed Graduate School Application and Application Fee. The application may submitted electronically at: www.uwm.edu/Dept/Grad_Sch/Prospective/onlineapp.html
- Two official transcripts from each academic institution the applicant has attended.
- A statement of purpose outlining the applicant's reasons for graduate study in History. In this statement the applicant should identify which of the three areas of concentration she/he would like to study - Global, Urban, or Modern- and also discuss at some length the historiographical issues about this area that are especially interesting to her/him.

Send the following directly to the Director of Graduate Studies, UW-Milwaukee History Department, P.O. Box 413, Milwaukee, WI 53201

- Three letters of recommendation from persons familiar with the applicant's intellectual achievement and potential.
- A sample of the applicant's written work that demonstrates his or her ability to conduct historical research and/or the ability to analyze the work of others critically.
- Scores of the Graduate Record Examination.

Course of Study
To earn the Ph.D., a student must have accumulated at least 54 graduate credits, at least 30 of them taken at the post-master's level. (Precise numbers of credits and actual course requirements while in Ph.D. status will be determined after a review of the applicant's previous coursework.) Doctoral students may not accumulate more than 6 credits in U/G courses, nor more than 6 credits in independent study without the approval of the Director of Graduate Studies. Of the 54 credits, at least 9 must be in fields other than history. No more than 18 credits in courses outside of History may be counted toward the doctoral degree.

Doctoral Concentration
Students applying to the History doctoral program must indicate their preference for one of the following doctoral concentrations: Modern Studies, Global History, Urban History. A doctoral student may change concentrations after admission only with the approval of the Director of Graduate Studies. The following list of courses includes those taken at both the master's and doctoral level; with the approval of the Director of Graduate Studies, some of these requirements may be met by work from previous institutions.

Courses Required For All Concentrations
All students must take three methods courses at the 700 level. Those currently offered include:

History 712 Historiography and Theory of History, 3 credits
History 713 Historical Research Methods, 3 credits
History 716 Professional and Pedagogical Issues in History, 3 credits
History 717 History and the New Media, 3 credits

All students must also take History 980, Dissertation Research (6 credits minimum), and 12 credits of electives (may include additional dissertation credits).

Modern Studies Concentration
Modern Studies focuses on the modern period of world history and on the application of current theoretical and interdisciplinary perspectives for the study of the modern period and of "modernity" itself. Typically, scholarship in this category may appropriate concepts and methodologies from other academic fields, and may involve literary theory, feminism and gender critique, traditions of the avant-garde, cultural studies, Marxism, neoconservatism, modern and postmodern art and architecture, film, media studies, and theories of post-industrial society. Students in the Modern Studies concentration are encouraged to participate in the university's Center for 21st Century Studies and its thematic programs that explore contemporary cultural and social phenomena, and to consider taking elective courses in the English Department's Modern Studies Concentration.

Those choosing this concentration must take English/History/MAFLL 740 or 741, Backgrounds of Modernism I or II (3 credits), and colloquia and seminars in modern history, and other appropriate seminars and colloquia in Modern Studies and related disciplines (21 credits).

Global History Concentration
Global history focuses on the study of phenomena that transcend single nations or regions, including the environment, religion, ideology, labor, migration/diaspora, war, peace, industrialization, colonialism and imperialism, social movements and political conflicts, slavery, class, women, gender, science and technology, popular culture, trade and finance, demography, politics, nationalism, and international relations. Students in Global History may emphasize African, Asian, European, Latin American, Middle Eastern, or United States history in a global context, analyzing historical issues within localities, regions, and nation-states, or concentrate on transnational dynamics and phenomena. In their inquiries, they will often cross geographic, disciplinary and conceptional boundaries, question or perhaps challenge existing regional or chronological frameworks, and develop new approaches to understanding global developments and interactions.

Those choosing this concentration must take History 839, Approaches to Global History (3 credits), and colloquia and seminars in Global History, and other appropriate seminars and colloquia in history and related disciplines (21 credits).

Urban History Concentration
Urban history is the study of urban areas, including cities, suburbs, and metropolitan regions around the world and throughout recorded human existence. Students of urban history examine all aspects of urban life. They study how the physical landscapes and social structures of urban areas have been produced and have changed over time. They examine how people respond to the problems and opportunities that arise in urban contexts, and they study the cultural activities that take place in urban areas. The evidence and sources on which urban historians draw are diverse. They include quantitative documents produced by government and other research entities; the records of the proceedings of municipal entities, voluntary, religious and political organizations; manuscript collections from private organizations and individuals, oral interviews, and reports from the media such as newspaper collections.

Those choosing this concentration must take History/Urban Studies 980, Growth of Urban Society (3 credits), and colloquia and seminars in Urban History, and other appropriate seminars and colloquia in History and related disciplines (21 credits).

Advising
The Director of Graduate Studies provides initial advising for the student in selecting courses and assists in selecting a Major Professor for long-term advising; the Director may assign a provisional graduate advisor before students select a Major Professor.

Students are required to consult periodically with, and have their schedules approved by, the Director of Graduate Studies, the provisional advisor, or the Major Professor. The Major Professor helps the student to define a dissertation topic and assists the student in choosing appropriate courses and in selecting members of the student's Preliminary Examination and Doctoral Committees. The Major Professor normally chairs the student's Preliminary Examination and Doctoral Committees.

Foreign Language or Data Analysis Proficiency
Students must demonstrate proficiency in one or more relevant foreign languages by passing a written examination in the translation of source materials or historical analysis. If a student's Major Professor considers proficiency in more than one language necessary to the student's specific plan of study, exams in more than one language may be required.

With the approval of the Major Professor, a student may substitute proficiency in another skill relevant to historical study; in these cases, proficiency will be demonstrated through relevant course work.

Minor
Students are not required to elect a minor field, but they may wish to supplement their concentration in this way. Depending on the particular course array, students may need to take more than 54 credits to complete both the major and minor requirements. Those who wish to take a minor have three options:

Option A: Minor in one field
Working with a minor professor, students take 8-12 credits in a single department, leading to a minor examination.

Option B: Interdisciplinary Minor
Students take 8-12 credits in two or more departments, selected for their relevance to the student's area of concentration. The minor will be defined in consultation with the student's Major Professor and the Director of Graduate Studies.

Option C: Minor in Public History
This 21-credit minor is appropriate for students planning a career in archives, museums, historic preservation, or other related specialties. It is not available to students who already have a specialization or degree in public history at the master's level. Students in this minor are required to take 12 credits as follows:

History 700 Introduction to Public History, 3 credits
History 701 Internship in Public History, 6 credits
History 715 Research Methods in Local History, 3 credits

Students must take History 700 in the first semester of their first year. The remaining 9 credits in public history must be selected from courses that pertain to the area of public history in which the student wishes to specialize.

For students interested in careers as archivists, electives should be selected from the following courses:

L&I Sci 681 Using Archives: The Value of Primary Sources in the Information Age, 3 credits
L&I Sci 775 Modern Archives Administration, 3 credits
L&I Sci 777 Seminar in Modern Archives Administration, 3 credits
L&I Sci 778 Archival Outreach: Programs and Services, 3 credits
L&I Sci 779 Arrangement and Description in Archives, 3 credits
L&I Sci 790 Fieldwork in Archives and Manuscripts, 3 credits

Students interested in careers in museums are advised to take at least three of the following courses:

Anthro 720 History and Theory of Museums, 3 credits
Anthro 721 Administration and Organization of Museums, 3 credits
Anthro 722 Museum Exhibits, 3 credits
Anthro 723 Museum Curation, 3 credits

Students interested in careers in historic preservation are advised to take at least three of the following:

Arch 560 Introduction to Historic Preservation, 3 credits Arch 760 History of Building Architecture, 3 credits
Arch 835 Studies in Architectural History and Precedent: (Historic Preservation), 3 credits
Arch 531 Historic Concepts of Architecture, 3 credits
Arch 533 Vernacular Buildings and Groupings, 3 credits

Doctoral Preliminary Examination
The doctoral preliminary examination includes written and oral components designed to demonstrate the breadth of a student's knowledge and the ability to conduct advanced historical research. It must be taken within five years of enrollment in the Ph.D. program.

Students who fail the doctoral preliminary examination may not proceed to the dissertation. The exam may be retaken only once. The Director of Graduate Studies provides specific guidelines for selecting the Doctoral Preliminary Examination Committee and preparing the doctoral preliminary examination proposal.

Dissertation
The dissertation is a major piece of original research representing a substantial contribution to historical scholarship. In consultation with the Major Professor, the student chooses a dissertation committee, which must approve the prospectus. The student's Major Professor provides guidance in preparing the prospectus and in developing and writing the dissertation.

Dissertation Defense
The candidate must pass an oral examination in defense of the dissertation.

Time Limit and Residence
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program. To meet the continuous-year portion of the residence credit requirement, students must complete 8 to 12 graduate credits in each of two consecutive semesters, or 6 or more graduate credits in each of three consecutive semesters, exclusive of summer sessions. In exceptional cases, modifications of the residence requirement may be requested, subject to the approval of the History Department and the Graduate School.

Courses

History (HIST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

301 History of Christianity, East and West to 1500. 3 cr. U/G. Development of the institutional church; major church leaders; theological and doctrinal changes; worship, liturgy, and arts of Christendom; Christianity and social change. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

302 History of Christianity, East and West Since 1500. 3 cr. U/G. Development of the institutional church; major church leaders, theological and doctrinal changes; worship, liturgy and arts of Christendom; Christianity and social change. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

303 A History of Greek Civilization: The Greek City-State. 3 cr. U/G. Greek history from prehistoric times to the death of Alexander the Great. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

304 A History of Greek Civilization: The Age of Alexander the Great. 3 cr. U/G. The Macedonian state to the death of Alexander the Great; the Hellenistic states. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

307 A History of Rome: The Republic. 3 cr. U/G. Roman history from the beginnings of the Roman state to the death of Julius Caesar. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

308 A History of Rome: The Empire. 3 cr. U/G. Roman history from the death of Julius Caesar to the fall of the empire in the west. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

318 Medieval Civilization: The High Middle Ages. 3 cr. U/G. The intellectual development of medieval Europe, from the twelfth century to the fourteenth century. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

319 The Era of the Crusades. 3 cr. U/G. A consideration of the relationships between western Europe and the East in the period of the Crusades. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

320 History of Medieval Warfare. 3 cr. U/G. Evolution of warfare in the Middle Ages; technology, tactics, strategy, and interaction with politics and culture. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

325 The Renaissance. 3 cr. U/G. Culture and society in Europe from the fourteenth to the sixteenth century; early Italian Renaissance to Elizabethan England; the Age of Discovery. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

326 The Reformation. 3 cr. U/G. Major religious movements and leaders of the

sixteenth century; social and intellectual history of the Protestant and Catholic Reformations. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

332 The History of Science Since Newton. 3 cr. U/G. The changing content and spirit of the physical and natural sciences and the impact of evolutionary thought. Prereq: jr st; satisfaction of GER English Composition competency req

340 Early Russia thru Ivan the Terrible, Peter the Great & Catherine the Great. 3 cr. U/G. Origins of the Russian state, formation of culture and institutions, rise of Muscovy, impact of East and West, creation and expansion of centralized state and empire. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

341 Imperial Russia: From Despotism to the Bolshevik Revolution. 3 cr. U/G. Development of socioeconomic and political institutions, bureaucratic absolutism, emancipation of serfs and reform, the intelligentsia and revolutionary movements, impact in industrialization and World War I. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

343 The Soviet Union: From Lenin to Gorbachev. 3 cr. U/G. Revolutionary Russia; Lenin and the creation of Soviet state; Stalin and modernization of USSR; WWII; Kruschev-Gorbachev period; Soviet socialism; the Soviet Union as super power. Satisfies L&S International req. Prereq: jr st;. satisfaction of GER English Composition competency req

345 The Modern Balkans: Nationalism, War, and Democracy. 3 cr. U/G. Fall of the Ottoman Empire; revolutionary movements; emergence of national states; socio-political and cultural developments; Second World War; socialist regimes; civil wars and democratic transitions. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

346 Poland and Its Neighbors, 1914-1945. 3 cr. U/G. The effects of two world wars in East-Central Europe. The independence and subjugation of Poland, Czechoslovakia, Hungary and the Baltic States. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

347 The Rise of Modern Poland, 1945 to the Present. 3 cr. U/G. The re-emergence of Poland as a Communist People's Republic at the end of World War II and its evolution until the end of 1970. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

348 Poland and Its Neighbors, 1945 to the Present. 3 cr. U/G. Developments in Poland, East Germany, Czechoslovakia, and Hungary since the Second World War. The origins, development, decline, and fall of communist rule in Central Europe. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

350 Industrializing Britain, 1780 to 1870. 3 cr. U/G. Britain's emergence as the first industrial society; how Britons experienced industrialization and contemporaneous developments in family, religious, political, and recreational life. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

351 Modern Britain: Descent of an Industrial Nation. 3 cr. U/G. Follows British fortunes from 1870 through two world wars, the Great Depression, the loss of empire, and the construction and dismantling of a welfare state. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

353 (effective 01/24/2005) Ireland Since 1600: Colony to Independent State. 3 cr. U/G. Irish history from 1600 to the present. Topics include the famine, nationalism, and relationship with England. Prereq: jr st; satisfaction of GER English Composition competency req.

353 Ireland Since 1600: Colony to Independent State. 3 cr. U/G. Irish history from 1600 to the present. Topics include the famine, nationalism, and relationship with England. Prereq: jr st

355 Modern and Contemporary France. 3 cr. U/G. France as a political experiment, complex society, intellectual and cultural center, and imperial power since 1815, with emphasis on the period since the late nineteenth century. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

357 The Old Regime and the French Revolution. 3 cr. U/G. France from Louis XIV to Napoleon: absolutism, Enlightenment, and the causes, course, and consequences of the Revolution. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

362 Germany: The Rise to World Power, 1815-1918. 3 cr. U/G. Rise and fall of Bismarckian empire; ascent to world power after 1871 unification; diplomacy of power leading to world war, 1914-1918; defeat and revolution. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

363 Germany: Hitler and the Nazi Dictatorship. 3 cr. U/G. Rise and fall of Third Reich; Weimar Republic and collapse; Hitler's conquest of power, national socialist state, World War II; catastrophe and reconstruction. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

364 The Holocaust: Anti-Semitism & the Fate of Jewish People in Europe, 1933-45. 3 cr. U/G. The rise of Nazism; anti-Semitism; annihilation of Jews and other ethnic and religious minorities; Jewish responses and resistance; legacy of persecution. Not open for cr to students with Hist 295 'Historical Encounters: The Holocaust.' Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

365 European Society in Revolution, 1730-1870. 3 cr. U/G. Family and household in the old regime; urban/rural society; elite and popular culture; the French revolution; sex roles and social change; industrialization; 19th century upheaval. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

366 European Society, 1870 to the Present: Mass Society in a Global Context. 3 cr. U/G. Nationalism and empire; mass culture; labor unrest; sexual politics; world war I, socialism, communism, and fascism, total war and recovery, post-colonial society; towards European community. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

367 Women in Soviet Society: A Historical Survey. 3 cr. U/G. A historical survey of the role of women in government, economy, and social structure of the Soviet Union with an examination of socialist writings on women's issues. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

369 European Diplomatic History from World War I to the Cold War. 3 cr. U/G. Crisis of the European state system in the twentieth century; rise of Hitler and origins of the Second World War; post-war Soviet American confrontation. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

370 Topics in the History of Religious Thought: (Subtitled). 3 cr. U/G. Selected topics in the history of religious thought, for graduate and advanced undergraduate students. Intensive reading and student reports will be stressed. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of English Composition competency req

371 Topics in European History: (Subtitled). 3 cr. U/G. Selected themes and issues in European history. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

372 Topics in Global History: (Subtitled). 3 cr. U/G. Selected issues in global history. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req.

373 Topics in Gender and History: (Subtitled). 3 cr. U/G. Selected topics in the history of gender, family, and sexuality. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of English Composition competency req

374 Europe: The Age of the Dictators, 1914-1945. 3 cr. U/G. Fascism, communism, and the decline of democracy; origins and consequences of the First and Second World Wars. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

375 Contemporary European History, 1945 to the Present. 3 cr. U/G. The Cold War; the recovery of Europe; student revolutions and spiritual crisis; economic stagnation; moves toward European unification; breakup of the Soviet bloc. Satisfies L&S International req. Prereq: jr st;.satisfaction of GER English Composition competency req

376 History of Ancient China, Earliest Times to 220 A.D. 3 cr. U/G. History of China through First Unification and Great Empire of Han Dynasty; attention to development of distinctive qualities of Chinese philosophy, politics, society, and material culture. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

377 Modern China. 3 cr. U/G. China in the nineteenth and twentieth centuries, from the Opium Wars to the establishment of People's Republic in 1949. Major political, economic and social issues. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

378 Revolution in China. 3 cr. U/G. History of the socialist revolution in China. Background examination of the Chinese communist movement, but major emphasis on People's Republic from 1949 to the present. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

381 Southeast Asia: The Formative Period to 1800. 3 cr. U/G. A survey of the region from the beginnings of agriculture and monsoon navigation until the beginnings of European conquest. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

382 Southeast Asia: The Age of Imperialism and Revolution Since 1800. 3 cr. U/G. A survey of the region beginning with the European occupation of the mainland and ending with the Vietnam War. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

383 North Africa from the Arab to the Ottoman Conquest. 3 cr. U/G. The process of Islamization, Arabization, and urbanization of North Africa from the seventh to the sixteenth century, including the Spanish-North African interrelationship. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

384 Tradition and Reason in Medieval Islam. 3 cr. U/G. The intellectual history of medieval Islam in terms of the impact of the Age of Reason on the traditional Islamic institutions. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

385 Political Thought in Medieval Islam. 3 cr. U/G. The traditional and philosophic approaches to the administrative institutions of Islam, including the historical and sociological theories of Ibn Khaldun. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

386 Africa: The Age of Empires to 1880. 3 cr. U/G. Survey of the highlights of early African history; empires black and white; religion; slavery; material culture. Satisfies L&S International req. Prereq: jr st; satisfaction of English Composition competency req

387 Africa: Imperialism and Independence Since 1880. 3 cr. U/G. The phases of colonial relationships and the parties involved; conquest, pacification, and independence of African states. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

388 Latin America: The Colonial Period. 3 cr. U/G. Age of conquest; socio-economic, cultural, and governmental institutions in colonial life; revolution and wars for independence. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

389 Latin America: The National Period. 3 cr. U/G. Socio-economic structures of emergent nation-states and the challenge of developing viable political institutions from the post-independence period of the nineteenth century to the early twentieth century. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

390 Latin America in the Age of Revolution, 1898 to the Present. 3 cr. U/G. Political, social and economic tensions since the Spanish-American War, with emphasis on revolutionary change in the twentieth century and Latin America's impact on the world. Satisfies L&S Interna-

tional req. Prereq: jr st; satisfaction of GER English Composition competency req

391 History of the International Relations of Latin America. 3 cr. U/G. The relations of the Latin American nations with each other and with major outside forces such as Europe and the United States. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

392 The History of Southern Africa. 3 cr. U/G. Surveys the history of South Africa and Zimbabwe with special reference to the twentieth century, comparing their struggles for majority rule. Satisfies L&S International req. Prereq: jr st; satisfaction of GER English Composition competency req

393 History of Mexico. 3 cr. U/G. An upper-division survey course spanning all periods of Mexican history, with special emphasis on the historical origins and development of major contemporary issues. Satisfies L&S International req. Prereq: jr st or cons instr; satisfaction of GER English composition competency req

394 History of Japan to 1600. 3 cr. U/G. Japanese political, economic, and social development, cultural change, and major historical figures, from ancient times to 1600. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

395 History of Japan Since 1600. 3 cr. U/G. Japan's rise as modern nation-state and economic power; evolution of social, political, cultural institutions from establishment of Tokugawa shogunate through Meji resotration to present. Satisfies L&S International req. Prereq: Jr st; completion of GER English Composition competency req

400 Topics in Latin American and Caribbean History: (Subtitled). 3 cr. U/G. Selected themes and issues in the history of South America, Central America, and the Caribbean Islands. Satisfies L&S International req. Retakable w/chg in topic to 9 cr max. Prereq: jr st; completion of GER English Composition competency req.

401 Topics in Middle Eastern History: (Subtitled). 3 cr. U/G. Selected themes and issues in Middle Eastern history. Retakable w/chg in topic to 9cr max. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

402 Topics in Asian History: (Subtitled). 3 cr. U/G. Selected themes and issues in the history of Asia. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; completion of GER English Composition competency req

403 American Origins, 1600-1750. 3 cr. U/G. The beginnings of plantation society in the South, colonist-Indian relations, Puritanism, Quakers, colonial riots and rebellions, the Great Awakening, Imperial system. Prereq: jr st; satisfaction of GER English Composition competency req

404 Topics in American History: (Subtitled). 3 cr. U/G. Selected themes and issues in the history of the United States. Retakable w/chg in topic to 9 cr max. Prereq: jr st; completion of GER English Composition competency req

405 The Age of the American Revolution, 1750-1789. 3 cr. U/G. Background to revolution; British policy and American protest; political, social, diplomatic, and military phases of the War for Independence; Articles of Confederation; Constitution of 1787. Prereq: jr st; satisfaction of GER English Composition competency req

407 The New Republic: The United States, 1789-1828. 3 cr. U/G. Establishment of the national government, rise and fall of the first party system; diplomacy and the War of 1812, expansion and economic change. Prereq: jr st; satisfaction of GER English Composition competency req

409 Causes of the Civil War, 1828-1861. 3 cr. U/G. Examination of the relationship between sectional conflict and political and social developments; the explanation of the causes and timing of the Civil War. Prereq: jr st; satisfaction of GER English Composition competency req

410 Civil War and Reconstruction: The United States, 1861-1877. 3 cr. U/G. The military conflict from Sumter to Appomattox; policies of Lincoln, Reconstruction and aftermath of slavery. Not open for cr to students who have had Hist 411. Prereq: jr st; satisfaction of GER English Composition competency req

415 The Gilded Age: Emergence of Modern America, 1877-1901. 3 cr. U/G. Era of big business; organized labor; the 'Old West'; literature, painting, architecture of Victorian America; reform movements; sexual roles; aftermath of slavery; regionalism, immigration; imperialism. Prereq: jr st; satisfaction of GER English Composition competency req

417 The Age of Roosevelt, Taft and Wilson, 1900-1921: A Progressive Era? 3 cr. U/G. Analysis of political, social, economic, and diplomatic history of the so-called progressive era, an age of racism, imperialism, and war, as well as reform. Prereq: jr st; satisfaction of GER English Composition competency req

418 America in Prosperity, Depression and War, 1921-1945. 3 cr. U/G. The Twenties as a transition period; the Great Depression; Franklin D. Roosevelt and the New Deal; foreign policies and U.S. participation in World War II. Prereq: jr st; satisfaction of GER English Composition competency req

419 America Since 1945. 3 cr. U/G. Postwar America, including social and economic developments, Cold War rivalries, and the changing political scenes from the Truman years to the present. Prereq: jr st; satisfaction of English Composition competency req

420 The History of the American Presidency: A Biographical Approach. 3 cr. U/G. A biographical study of American presidents from Washington to Nixon; their backgrounds, leadership styles, successes, failures, and legacies. Prereq: jr st; satisfaction of GER English Composition competency req

421 American Thought and Culture to 1860. 3 cr. U/G. Major intellectual movements in America: Puritanism, the Enlightenment, Romanticism, religion, political thought, higher education, science, parallel movements in art and architecture. Prereq: jr st; satisfaction of GER English Composition competency req

422 American Thought and Culture Since 1860. 3 cr. U/G. Major intellectual movements in America: evolution, Social Darwinism, pragmatism, Protestant Neo-Orthodoxy, conservatism, liberalism, and the New Left, modernism/postmodernism. Prereq: jr st; satisfaction of GER English Composition competency req

426 Amer Social Hist: Industrialism & the American Century, 1865 to the Present. 3 cr. U/G. Survey of American social history, emphasizing major groups and institutions and their change. Prereq: jr st; satisfaction of GER English Composition competency req

433 From Colony to World Power: U.S. Foreign Relations to 1914. 3 cr. U/G. How the United States became a nation, expanded across a continent, and moved outward to acquire colonies and claim great-power status. Prereq: jr st; satisfaction of GER English Composition competency req

434 The United States as a World Power in the 20th Century. 3 cr. U/G. How the United States became involved in two world wars and a cold war, while spreading its interests and influence across the globe. Prereq: jr st; satisfaction of GER English Composition competency req

439 The Italian-American Experience in the United States. 3 cr. U/G. Italian-American cultural history, including the arts, religion, entertainment, family relationships and discrimination encountered; Italian-American experience in the context of the global diaspora. Prereq: jr st; completion of GER English Composition competency req

440 History of the American Working Classes. 3 cr. U/G. The social and occupational composition of the American working classes and their response to capitalism, socialism, and the organized labor movement. Prereq: jr st; satisfaction of GER English Composition competency req

443 History of the Old South, 1607-1865. 3 cr. U/G. The rise of the South as a distinctive region dominated by a plantation society whose interests led to sectionalism and America's most tragic war. Prereq: jr st

444 History of the New South, 1865 to the Present. 3 cr. U/G. A vanquished South restored to the Union seeking economic progress without social change. Reconstruction, populism, depression, war, labor, civil rights, women, change and continuity. Prereq: jr st; satisfaction of GER English Composition competency req

445 African Americans from Slavery to Freedom. 3 cr. U/G. African-American history from shores of Africa through Atlantic slave trade to plantation slavery and formation of an African-American community in the New World. Prereq: jr st; satisfaction of English Composition competency req

446 African Americans Since the Civil War. 3 cr. U/G. The search for justice and equality, from emancipation in 1865 to the civil rights revolution of the 1960's and beyond. Prereq: jr st; satisfaction of English Composition competency req

448 Baseball in American History. 3 cr. U/G. The origins and development of baseball in the United States, its rise as a spectator sport, and its place in American life and culture. Prereq: jr st; satisfaction of GER English Composition competency req

449 Popular Culture in America, 1800 to the Present. 3 cr. U/G. Popular culture seen through artifacts and the mass media: popular music, newspapers, magazines, dime novels, film, comics, tv, radio, folk heroes, sports, and 'stars.' Prereq: jr st; satisfaction of GER English Composition competency req

450 Growth of Metropolitan Milwaukee. 3 cr. U/G. History of the city and county of Milwaukee and Milwaukee suburbs, emphasizing population patterns; government; economic change; social, cultural and educational institutions; and spatial relationships. Prereq: jr st; satisfaction of GER English Composition competency req

451 History of Wisconsin. 3 cr. U/G. Political, economic and social development of Wisconsin, especially since 1815, with attention to such major personalities as the La Follettes, Kohlers, Turner, Hoard, Wright, and Gale. Prereq: jr st; satisfaction of GER English Composition competency req

452 History of Religion in American Life to 1870. 3 cr. U/G. Development of different religions in America; role of religion in American society, politics; church attitudes on race and war; lives of religious leaders; theology. Prereq: jr st; satisfaction of English Composition competency req

453 History of Religion in American Life Since 1870. 3 cr. U/G. Development of different religions in America; role of religion in American society, politics; church attitudes on race and war; lives of religious leaders; theology. Prereq: jr st; satisfaction of GER English Composition competency req

456 The Human Side of History: American Biographies. 3 cr. U/G. The study of American history through biography, emphasizing a variety of figures who represent major historical issues, ideas, and movements. Prereq: jr st; satisfaction of GER English Composition competency req

457 Military History of the United States. 3 cr. U/G. Founding and growth of the military establishment; the exercise of the military art; military policies in connection with relevant political, social, and economic factors. Prereq: jr st; satisfaction of GER English Composition competency req

460 The History of Poverty in America. 3 cr. U/G. Social welfare policies and programs (including evolution of social work profession), 1620-present, in light of major developments in American social and intellectual history. Prereq: jr st; satisfaction of GER English Composition competency req

463 History of the American City. 3 cr. U/G. Character of American urbanization and its social and political consequences; responses to 'urban problems' from the early nineteenth century to the present. Prereq: jr st; satisfaction of GER English Composition competency req

468 The American Feminist Movement. 3 cr. U/G. History of the American feminist movement from colonial times to the present. Prereq: jr st; satisfaction of GER English Composition competency req

469 Manhood in America. 3 cr. U/G. A gendered exploration of the history of masculinity in the United States; how various styles and functions of manhood changed over time. Counts as repeat of Hist 373 w/topic 'Manhood in America.' Prereq: jr st, satisfaction of GER English Composition competency req; or grad st

473 History of Wisconsin Indians. 3 cr. U/G. History of Wisconsin tribes from their earliest years to the present, including European contacts, treaties, the fur trade, and wars. Prereq: jr st; satisfaction of English Composition competency req

474 Topics in North American Indian History: (Subtitled). 3 cr. U/G. Detailed examination of such topics as Indian legal status, culture change, Indian education, Pan-Indianism and gender roles. Retakable w/chg in topic to 9 cr max. Prereq: jr st; satisfaction of GER English Composition competency req

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before coursework level, content and credits are determined and/or in specially prepared program coursework. Retakable w/chg in topic. Prereq: jr st; satisfaction of English Composition competency req; acceptance for Study Abroad Prog

595 The Quantitative Analysis of Historical Data. 3 cr. U/G. Statistical methods and the computer in analysis of historical problems: statistics through regression; use of social science computer package; special techniques for handling historical data. Prereq: jr st, completion of GER English Composition & Mathematical Skills competency reqs; 3 yr HS Math, grade of C or better in Math 105(P) or Math placement test score of 30

596 Maps as Historical Sources. 3 cr. U/G. Introduction to maps, both as historical artifacts and as instruments for reinterpreting historical realities. Prereq: jr st; completion of GER English Composition competency req

597 Fields and Methods in Public History. 3 cr. U/G. Career opportunities for historians in historical agencies, focusing on the work and methods of archivists, museum curators, historic preservationists, oral historians, and administrators. Prereq: jr st; completion of GER English Composition competency req; cons coord of public hist

651 Introduction to Material Culture in Historical Agencies. 3 cr. U/G. History, theory, and methodology of material culture studies, focusing on the uses of material culture in historical agencies. Prereq: jr st; completion of GER English Composition competency req; cons coord public hist

654 History of Wisconsin (W-I). 3 cr. U/G. Political, economic, and social development of Wisconsin, especially since 1815, with attention to such major personalities as the La Follettes, Kohlers, Turner, Hoard, Wright, and Gale. Not open to students who have cr in Hist 451. Does not count as repeat of Hist 451. Prereq: jr st; grade of C or higher in English 102 or score 637 on EPT

700 Introduction to Public History. 3 cr. G. Seminar on community history, relations between academic history and public history, and uses of material culture and oral history. Prereq: grad st

701 Internship in Public History. 1-6 cr. G. Requirements determined and evaluation arranged on an individual basis. Total of 6 cr required for the public history specialization of the M.A. degree and the optional public history minor in the PhD degree. Prereq: grad st; cons coord of public history

712 Historiography and Theory of History. 3 cr. G. Seminar on history of historical writing and thought, including such theoretical problems as objectivity, generalization, the nature of historical explanation, and the value of history. Prereq: grad st

713 Historical Research Methods. 3 cr. G. Seminar addressing evaluation of evidence, quantitative methods, and application of social science methodology to historical research. Prereq: grad st

714 Oral History. 3 cr. G. Seminar on purpose, value, theory, method, and uses of oral history. Prereq: grad st; Hist 700(P) required only for public history students

715 Research Methods in Local History. 3 cr. G. Seminar on history and methodology of studying small towns, rural areas, cities, and neighborhoods in the United States. Prereq: grad st

716 Professional and Pedagogical Issues in History. 3 cr. G. Seminar on professional and pedagogical aspects of historical work, including course management, lecture writing, grading, and grant writing. Prereq: grad st

717 History and the New Media. 3 cr. G. Seminar on uses of new forms of technology in historical research and teaching. Prereq: grad st

740 Backgrounds of Modernism I: 1750-1914. 3 cr. G. Seminar on major figures and intellectual forces that have shaped the history of Modernism, from the 19th century to approximately the end of World War I. English 740, Hist 740, & MAFLL 740 are jointly offered; they count as repeats of one another. Prereq: grad st

741 Backgrounds of Modernism II: The Twentieth Century. 3 cr. G. Seminar on major figures and intellectual forces that have shaped the history of modernism and postmodernism from the end of World War I through the present. English 741, Hist 741 & MAFLL 741 are jointly offered; they count as repeats of one another. Prereq: grad st

800 Colloquium on U.S. History: (Subtitled). 3 cr. G. Seminar on issues and problems in U.S. history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

803 (901) Colloquium in Early American History. 3 cr. G. Studies in the bibliography and historians of the colonial American period. Prereq: grad st; cons instr

805 (917) Colloquium: The Age of Jackson. 3 cr. G. Studies in basic aspects of American history between 1815 and 1848 with emphasis on changing interpretations. Prereq: grad st; cons instr

807 Colloquium on the U.S. in the Era of the Civil War. 3 cr. G. Seminar on politics, economic development, and social and legal history from 1830 to 1865. Prereq: grad st

809 Colloquium on Readings in the Gilded Age, 1877-1901. 3 cr. G. Seminar that surveys historical literature on politics, culture, and society in late 19th century United States. Prereq: grad st

811 (912) Colloquium: The Progressive Era. 3 cr. G. Studies in the bibliography and literature of the progressive era with an emphasis on changing interpretations. Prereq: grad st; cons instr

813 (916) Colloquium: Twentieth-Century Problems in American History. 3 cr. G. A study of selected aspects of the American domestic scene and of important contemporary historians and their interpretations of the recent past. Prereq: grad st; cons instr

815 Colloquium on the U.S. and the World to 1900. 3 cr. G. Seminar on political, economic, and cultural dimensions

of U.S. diplomacy before 1900. Prereq: grad st

817 Colloquium on the U.S. and the World Since 1900. 3 cr. G. Seminar on political, economic, and cultural dimensions of U.S. diplomacy since 1900. Prereq: grad st

819 Colloquium on U.S. Intellectual and Cultural History. (Subtitled). 3 cr. G. Seminar on topics in the history of U.S. thought and culture. Specific topics announced in Timetable each time course is offered. May be repeated w/ chg in topic to 9 cr max. Prereq: grad st

825 (906) Colloquium in the History of the South. 3 cr. G. Studies of aspects of the history of the south with emphasis on changing interpretations. Prereq: grad st; cons instr

827 Colloquium on Slavery and Race in the Americas. 3 cr. G. Seminar on slavery and race relations in the Atlantic world, with emphasis on African diasporic history. Prereq: grad st

831 (913) Colloquium on U.S. Labor History. 3 cr. G. Seminar on topics in the history of the working classes in the U.S. since 1800. Prereq: grad st

833 Colloquium on Urban History: (Subtitled). 3 cr. G. Seminar on issues and problems in urban development and institutions. Specific topics announced in Timetable each time course is offered. Retakable w/ chg in topic to 9 cr max. Prereq: grad st

835 (973) Colloquium-Literature of Milwaukee. 3 cr. G. Examination and analysis of the documentation of Milwaukee's history, biography, memoirs, fiction, newspapers and periodicals, government documents and reports, manuscripts, maps, iconographic materials, and physical survivals. Prereq: grad st; cons instr

839 Approaches to Global History. 3 cr. G. Seminar on historiography and practices of global and comparative history. Prereq: grad st

840 Colloquium on Global History: (Subtitled). 3 cr. G. Seminar on historical developments from a global or comparative perspective. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

841 Colloquium on Modern Studies: (Subtitled). 3 cr. G. Seminar on historical developments from a modern studies perspective. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

850 Colloquium on European History: (Subtitled). 3 cr. G. Seminar on issues and problems in European history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

853 Colloquium on Ancient History. 3 cr. G. Seminar on topics in the history of ancient civilizations. Prereq: grad st

856 (904) Colloquium in Medieval History. 3 cr. G. History of medieval ecclesiastical institutions and law. Prereq: grad st; cons instr

859 (806) Colloquium in Medieval Economic History. 3 cr. G. Studies in the economic and social history of the middle ages. Prereq: grad st; cons instr

862 (850) Colloquium in the History of Renaissance and Reformation Europe. (Subtitled). 3 cr. G. Introduction to important primary and secondary sources for the period; historiographical problems; different periods and/or problems are dealt with from semester to semester. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

868 (857) Colloquium I-in Modern British History. 3 cr. G. Review basic historical literature on development of British economy, social structure and relations, political institutions, and cultural values since industrial revolution. Prereq: grad st; cons instr

871 (801) Colloquium in the History of Modern Russia and the Soviet Union. 3 cr. G. A study of selected aspects of Russian development since 1900. Prereq: grad st; cons instr

874 (865) Colloquium in European Social History in the Nineteenth and Twentieth Centuries. 3 cr. G. Studies of selected aspects of modern European social history. Topics vary. May not be retaken for cr. Prereq: grad st; cons instr

877 (870) Colloquium in Modern German History: (Subtitled). 3 cr. G. Studies in nineteenth and twentieth century German history, the period to vary from semester to semester. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

880 (875) Colloquium: European Diplomatic History. 3 cr. G. Studies in modern European diplomatic history, emphasizing historiography, interpretation, and archival sources. Prereq: grad st; cons instr

883 (930) Colloquium in the History of Science. 3 cr. G. Selected topics in the history and historiography of science. Prereq: grad st; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Colloquium on Non-Western History: (Subtitled). 3 cr. G. Seminar on issues and problems in the history of Africa, Asia, Latin America, or the Middle East. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

892 Colloquium in Medieval Islam: (Subtitled). 3 cr. G. Readings in the institutional and comparative history of medieval islam with emphasis on urban development, religious movements or regional specialization. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

894 (832) Colloquium in Tropical History: Colonial Rule. 3 cr. G. The colonial period both from the point of view of the european rulers and the colonized peoples of the third world. Prereq: grad st; cons instr

896 (860) Colloquium in Latin American History: The National Period. 3 cr. G. Studies with an essentially historiographical approach, bibliography, interpretations, and approaches or methods. Prereq: grad st; cons instr

898 (840) Colloquium in Modern Chinese History. 3 cr. G. Studies in 19th and 20th century Chinese history with emphasis on the main thematic ap-

proaches employed by Chinese, Japanese, European, and American historians. Prereq: grad st; cons instr

900 Seminar on U.S. History: (Subtitled). 3 cr. G. Topics in U.S. history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

903 (950) Seminar: American Political Hist in Revolutionary & Early National Periods. 3 cr. G. Studies in American political history in the age of the founding fathers. Prereq: grad st; cons instr

904 Seminar in Modern America. 3 cr. G. Research in United States history since 1921. Prereq: grad st

906 Seminar on U.S. Religious History. 3 cr. G. Religious thought, movements, and issues in U.S. history. Prereq: grad st

907 Seminar on U.S. Intellectual and Cultural History. 3 cr. G. Intellectual and cultural figures and movements in U.S. history. Prereq: grad st

909 Seminar on U.S. Social History. 3 cr. G. History of U.S. society. Prereq: grad st

912 Seminar on U.S. Ethnic History. 3 cr. G. Ethnic communities, identities, and issues in U.S. history. Prereq: grad st

915 Seminar on U.S. Foreign Relations. 3 cr. G. Political, economic, and cultural dimensions of U.S. diplomacy. Prereq: grad st

918 (963) Seminar In American Regionalism And Sectionalism. 3 cr. G. - Prereq: grad st; cons instr

921 (965) Seminar in the History of the American West. 3 cr. G. Problems in the history of the west. Prereq: grad st; cons instr

924 (970) Seminar In American Economic History. 3 cr. G. Problems in the economic history of the United States. Prereq: grad st; cons instr

927 Seminar on U.S. Urban History. 3 cr. G. Housing, race relations, powers and functions of municipal government, law enforcement, and city planning in the U.S. Prereq: grad st

930 Seminar in Milwaukee and Wisconsin History. 3 cr. G. - Prereq: grad st; cons instr

940 Seminar on Global History: (Subtitled). 3 cr. G. Historical developments from a global or comparative perspective. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

950 Seminar on European History: (Subtitled). 3 cr. G. Topics in European history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

955 Seminar on Medieval History: (Subtitled). 3 cr. G. Topics in medieval history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

962 Seminar on Renaissance and Reformation History. (Subtitled). 3 cr. G. Topics in early modern European history. Specific topics announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

965 Seminar on European Intellectual and Cultural History. 3 cr. G. Intellectual and cultural figures and movements in European history. Prereq: grad st

970 Seminar on European Political History. 3 cr. G. State, society, revolution, war and empire in European history. Prereq: grad st

971 Seminar on the History of American Urban Problems. 3 cr. G. Historical analysis of the current problems of housing, race relations, the powers and functions of municipal government, law enforcement, and city planning in the United States. Hist 971 & Urb Std 971 are jointly offered; they count as repeats of one another. Prereq: grad st

972 Seminar on Modern Studies: (Subtitled). 3 cr. G. Theory and practice of avant-garde culture in Europe and the Americas since the mid-nineteenth century. Specific topics and any additional prerequisites announced in the Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

973 Seminar on Non-Western History: (Subtitled). 3 cr. G. Significant themes and eras in the history of non-Western peoples and nations. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

975 (822) Seminar in European Social and Economic History. (Subtitled). 3 cr. G. Studies in social change, economic development, and the impact of social and economic forces in European history. Prereq: grad st; cons instr

980 Growth of Urban Society. 3 cr. G. Seminar in historical, social, and ecological growth and development of urban agglomerations. Comparative framework will be used to examine the urban process. Hist 980 & Urb Std 980 are jointly offered; they count as repeats of one another. Prereq: grad st

985 Master's Thesis Research. 1-6 cr. G. For students in the thesis option. Retakable to 6 cr max. Prereq: grad st; cons instr

989 Master's Level Independent Work. 1-3 cr. G. Independent study on topics selected in agreement with supervising professor. Retakable to 9 cr max. Prereq: grad st; cons instr

990 Dissertation Research. 1-6 cr. G. Research or dissertation work for students in the doctoral program in History. Retakable as necessary to fulfill dissertation requirements. Prereq: grad st; cons instr

999 Doctoral Level Independent Work. 1-3 cr. G. Independent study on topics selected in agreement with supervising professor. Prereq: grad st; cons instr

Cross-listed Course

The following course may also be used to fulfill certain curriculum requirements of the graduate program in History.

ArtHist 702 (Historic Preservation.) 3 cr, G.

HUMAN RESOURCES AND LABOR RELATIONS

College of Letters and Science and School of Business Administration

Degree Presented Jointly: Master of Human Resources and Labor Relations

Phone: (414) 229-4310
FAX: (414) 229-5915
E-mail: mhrlr@.uwm.edu
Web: www.uwm.edu/Dept/MHRLR

The School of Business Administration and the College of Letters and Science offer and present jointly the Master of Human Resources and Labor Relations (MHRLR).

The MHRLR is an innovative master's program offering students an interdisciplinary blend of courses and faculty in the areas of human resources and labor relations. The MHRLR program prepares students for careers as practitioners, and emphasizes a firm educational grounding in both the liberal arts and business administration. This grounding includes knowledge of human resources, staffing, labor relations, the legal system, and statistics.

Elective courses and options within the core requirements allow students to gain the specialized knowledge needed to work in the human resource management and labor relations areas of: compensation and benefits, collective bargaining, alternative dispute resolution, recruitment and selection, training and development, occupational health and safety, equal employment opportunity, strategic human resource management, and international human resource management.

The program is designed for full-time and part-time students who seek careers in the private or public sectors, and with unions or management.

Graduate Faculty

(Professors' home departments appear in parentheses)

PROFESSORS

Anderson, Margo, Ph.D., Rutgers University (History)
Heywood, John, Ph.D., University of Michigan (Economics)
Martin, Larry, Ph.D., University of Wisconsin-Madison (Administrative Leadership)
Mone, Mark, Ph.D., Washington State University (Business Administration)
Nystrom, Paul, Ph.D., University of Minnesota (Business Administration)
Ragins, Belle Rose, Ph.D., University of Tennessee-Knoxville (Business Administration)
Soofi, Ehsanolah, Ph.D., University of California-Riverside (Business Administration)
Yasai-Ardekani, Masoud, Ph.D., City University Business School-London (Business Administration)

ASSOCIATE PROFESSORS

Alwan, Layth, Ph.D., University of Chicago (Business Administration)
Burrell, Nancy, Ph.D., Michigan State University (Communications)
Freeman, Sarah, Ph.D., University of Michigan (Business Administration)
Hewitt, Jeanne, Ph.D., University of Illinios-Chicago (Nursing)
Marcus, Richard, Ph.D., University of Chicago (Business Administration)
Miller, Janice, Ph.D., Arizona State University (Business Administration)

ASSISTANT PROFESSORS

Adams, Scott, Ph.D., Michigan State University (Economics)
Bender, Keith, Ph.D., Duke University (Economics)
Daley, Barbara, Ph.D., Cornell University (Administrative Leadership)
Drewianka, Scott, Ph.D., University of Chicago (Economics)
McKay, Patrick, Ph.D., University of Akron (Business Administration)
McKay, Steven, Ph.D., University of Wisconsin-Madison (Sociology)
Singh, Romila, Ph.D., Drexel University (Business Administration)

Master of Human Resources and Labor Relations

Admission
An applicant must meet Graduate School requirements plus the following requirements to be considered for admission to the MHRLR program:

- Submission of GRE or GMAT scores and two letters of recommendation to the MHRLR program.
- Students admitted to the program will be expected to present at least three credits of prior work in microeconomics and fulfill prerequisite requirements in statistics for either Business 709 or Economics 310.
- Students who are deficient in the areas of microeconomics or statistics at the time of admission (see above) will be expected to satisfy deficiency requirements within three enrolled semesters. Deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.
- Applicants are reviewed by the MHRLR admissions committee to assess academic achievements and the ability to do intensive graduate-level work.

Major Professor as Advisor
A student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The assistant director of the MHRLR Program advises and supervises the newly admitted student.

The assistant director, in consultation with the student, reviews the student's academic background and career goals and designs an appropriate program of study consistent with degree requirements.

Credits and Courses
The Master of Human Resources and Labor Relations degree will be awarded upon completion of 36 credits of prescribed graduate study and appropriate prerequisite course work. The program offers a balance between liberal arts and business-based education, requiring that at least 15 credits be taken within the College of Letters and Sciences and at least 15 credits be taken within the School of Business Administration.

The degree requires completion of 18 credits in core courses that provide each student with a solid grounding in both la-

bor relations and human resources while permitting some specialization according to student interests. Core courses are as follows:

Ind Rel 701 Industrial and Labor Relations
Bus Mgmt 706 Managing in a Dynamic Environment
Bus Admin 738 Human Resource Management
Bus Admin 443 Special Topics in HRM (Staffing)
Econ 415 Economics of Employment Relations
or
Econ 753 Collective Bargaining
and
Ind Rel 712 Employment Law
or
Ind Rel 711 Labor Relations Law

If Econ 415 and Econ 753 are both taken, one of these may be used to help fulfill elective requirements. If Ind Rel 711 and Ind Rel 712 are both taken, one of these may be used to help fulfill elective requirements.

To ensure a well-rounded education, students are required to fulfill the remainder of the 15-credit requirement within the College of Letters and Science and within the School of Business Administration by selecting from a list of approved elective courses from within each organization. As part of these elective courses, students are required to take a statistics course, either Bus Adm 709 or Econ 310 (but not both). A student may, with advisor approval, fulfill the 36-credit requirement by taking up to 6 credits from the approved list of alternative electives in other schools such as the College of Nursing, the School of Education, and the School of Social Welfare. No student will be permitted to apply more than nine credits taken at the U/G level toward meeting MHRLR degree requirements.

Elective Courses:
Please refer to www.uwm.edu/Dept/MHRLR for a comprehensive listing of elective courses.

Students without prior experience in the field are encouraged to take advantage of the program's extensive contacts in the business and labor communities by undertaking one or more internships as either Bus Adm 899 or Ind Rel 921. Students may also utilize the wide range of faculty expertise available within the program for a major research paper on a human resources or labor relations topic. These papers, under the direction of a faculty advisor, are taken as either Ind Rel 801 or Bus Adm 899. A student may graduate with honors from the MHRLR program by maintaining a 3.5 grade-point average within the program, and by writing a 3-credit major research paper (under Bus Adm 899 or Ind Rel 801).

Any new course development, programmatic changes, or program name change must be approved by the appropriate curricular committees and faculty in the respective units.

The program, including admissions and course staffing, is subject to the AACSB accreditation requirements.

Graduate Certificate in Mediation and Negotiation

The Department of Communication, in cooperation with the Master's in Human Resources and Labor Relations (MHRLR) and the School of Business Administration, offers the Graduate Certificate in Mediation and Negotiation. The program of study is designed to provide practical and theoretical knowledge for students who wish to pursue or advance careers that involve managing or resolving disputes in organizational, educational, community, or family contexts. The program is designed to meet the increasing need of business, organized labor, public sector, and community organizations for people with skills in conflict resolution.

Using an interdisciplinary approach, the program offers a basic knowledge of mediation and negotiation between individuals and across organizations, allows some specialization in further course work, and is integrated with a final course involving either field-work or a research paper written under the direction of an expert in the area.

Students can complete the Graduate Certificate in Mediation and Negotiation while enrolled either part-time or full-time, and by taking courses during evenings and/or weekends. With the approval of the program, students admitted to either the MA in Communication or the MHRLR degree program may apply courses taken to meet certificate requirements toward their degree.

Admission
Students applying for the Certificate Program in Mediation and Negotiation must hold a bachelor's degree and must have earned a 2.75 GPA overall or must furnish substantial evidence of ability to succeed in graduate level work. Students may apply to the Graduate School as candidates for the certificate program in non-degree status, or they may pursue the certificate while enrolled in another graduate program.

Credits and Courses
The certificate requires 12 credits, including 9 credits of course work and 3 credits of field work or research.

Required Courses:

Comm	665	Introduction to Mediation
Econ	753	Collective Bargaining

Elective Course: select one of the following

Comm	865	Theory and Practice of Meditation
IR	715	Alternative Dispute Resolution
Bus Admin	737	Managerial Decisions and Negotiations

Field Work or Research Requirement: select one of the following

Comm	998	Internship in Communication
Comm	999	Independent Study
IR	801	Research Seminar in Industrial and Labor Relations
IR	921	Internship in Industrial Relations
IR	999	Independent Study
Bus	799	Reading and Research

Recommended or Related Courses (not required for the Certificate)

Comm	710	Managerial Communication
Comm	823	Seminar in Small Group Communication

Ed Pol	510	Foundations of Human Relations
IR	711	Labor Relations Law
IR	714	Industrial Relations in the Public Sector
Soc	766	Theory and Method in Social Psychology

Graduate Certificate in International Human Resources and Labor Relations

The Master's in Human Resources and Labor Relations program offers the Graduate Certificate in International Human Resources and Labor Relations. The certificate responds to the increasing influence of globalization on the practice of Human Resource Management and the conduct of Labor Relations. Firms and unions are increasingly part of a complex web of international economic relationships. Many of the workplace innovations now taken for granted began overseas: quality circles, work groups and flatter hierarchies. Many firms operate overseas under very different labor market institutions and human resource expectations. The program of study provides practical and theoretical knowledge designed to help students function as professionals in the increasing broad international context of human resource management and labor relations.

Students can complete the Graduate Certificate in International Human Resources and Labor Relations while enrolled either part-time or full-time, and by taking courses during the evening. With the approval of the program, students admitted to the MHRLR degree program may apply courses taken to meet certificate requirements toward their degree.

Admission
Students applying for the Certificate Program in International Human Resources and Labor Relations must hold a bachelor.s degree and must have earned a 2.75 GPA overall or must furnish substantial evidence of ability to succeed in graduate level work. Students admitted to the Certificate will be expected to present at least three credits of prior work in microeconomics and three credits in statistics. Students may apply to the Graduate School as candidates for the certificate program in non-degree status, or they may pursue the certificate while enrolled in another graduate program.

Credits and Courses
The certificate requires 12 credits of classwork.

Ind Rel 701 Industrial and Labor Relations
Econ 755 Comparative Labor Markets and the Employment Relationship

Bus Mgt 723 Managing Across Cultures,

and

Bus Adm 738 Human Resource Management

or

Bus Adm 795 International Human Resource Management

Course substitutions would be allowed with the consent of the MHRLR Director for those who had previously completed similar coursework.

Additional coursework recommended for students interested in field work or related research (Not required for the certificate):

Ind Rel 999 Independent Study
Bus Adm 799 Reading and Research
Ind Rel 921 Internship in Industrial Relations

Time Limit
Non-degree students must complete the certificate requirements within three years of initial enrollment. For those who are simultaneously enrolled in a degree program, the time limit for certificate completion is the same as that for the degree.

Courses

Industrial & Labor Relations (IND REL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

701 Industrial and Labor Relations. 3 cr. G. Industrial relations systems, unions and management as institutions, work place as a socio-economic unit, labor market analysis, human resource management and collective bargaining. Prereq: grad st or cons instr

711 Labor Relations Law. 3 cr. G. Legal aspects of labor relations; operations of National Labor Relations Board, representation issues, use of economic weapons, good faith bargaining, enforcement, Wisconsin Employment Relations Commission. Prereq: grad st or cons instr

712 Employment Law. 3 cr. G. Introduction to federal laws and regulations covering such topics as wage standards, unemployment compensation, osha, alien employment, social security, employee safety and prohibited discrimination. Prereq: grad st or cons instr

714 Industrial Relations in the Public Sector. 3 cr. G. Economic and legal aspects; federal, state with emphasis on municipal sector, including fire and police; impact of unionism; impasse resolution in Wisconsin and Illinois. Prereq: grad st or cons instr

715 Alternative Dispute Resolution. 3 cr. G. Examination of the processes for dispute resolution (particularly processes involving third parties); their utility and application in union, non-union and non-workplace settings. Prereq: grad st & Econ 753(P), or cons instr

716 Compensation: Theory and Practice. 3 cr. G. Examination of pay policies and practices, their impact on employees, internal and external determinants, and problems of administration. Prereq: grad st; Bus Adm 731(P) & 738(P) or cons instr

717 Employee Benefits. 3 cr. G. Examination of role and scope of employee benefits, their determinants, and problems of administration. Prereq: grad st; Econ 753(R); Ind Rel 712(R)

731 (effective 01/24/2005) Research Tools for Practitioners in Human Resources and Labor Relations. 3 cr. G. Planning and carrying out simple surveys; evaluating policies, programs, and procedures in organizations; interpreting, evaluating and using research conducted by others. Ind Rel 731 and BusMgmt 731 are jointly offered; they count as repeats of one another. Prereq: grad st; Econ 210(P) or Bus Adm 210(P) or cons instr

731 Research Tools for Practitioners in Human Resources and Labor Rela-

tions. 3 cr. G. Planning and carrying out simple surveys; evaluating policies, programs, and procedures in organizations; interpreting, evaluating and using research conducted by others. Prereq: grad st; Econ 210(P) or cons instr

754 Worker Participation. 3 cr. G. Analyzes worker participation programs using history, economic and industrial relations theories, and empirical research and case studies. Jointly-offered w/& counts as repeat of Econ 754. Prereq: grad st; Econ 451 or cons instr

800 Current Issues in Industrial Relations: (Subtitled). 1-3 cr. G. Topics course covering subjects such as quality work, innovations, employee testing, dispute resolution. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Ind Rel 701(P) or cons instr

801 Research Project in Industrial and Labor Relations. 3 cr. G. Work with a faculty advisor on the development and preparation of a research project on a current industrial relations issue. Prereq: completion of 24 cr in MHRLR Prog; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

921 Internship in Industrial Relations. 1-6 cr. G. An internship with a company, union or a governmental agency in the field of human resources and labor relations. Project paper required. Prereq: grad st; 8 cr in MHRLR Prog completed

999 Independent Study. 1-3 cr. G. Supervised investigation of a particular topic area either not covered by other industrial relations courses or a level of sophistication beyond that in other courses. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

Following are selected Business courses that may be applied toward the MHRLR degree.

216 BUSINESS ADMINISTRATION

Courses numbered 300 to 699 are Undergraduate/Graduate. Courses numbered 700 and above are Graduate only.

442 Industrial Psychology. 2 or 3 cr. U/G. Application of psychological principles to industrial problems. 2 cr Grad; 3 cr Undergrad; Prereq: Bus Adm 330(P) & Psych 101(P)

443 Special Topics in Human Resources Management. (Subtitled) 3 cr. U/G. Selected topics such as training and development; recruitment and selection; compensation; managing diversity, and performance appraisal. May be retaken with change in topic to max of 9 cr. Pre-Business sr & Univ Special Students not eligible to register. Prereq: Business jr or grad st; Bus Adm 330(P) or cons instr

733 Organizational Development. 3 cr. G. Problems of implementing change. Roles of external and internal consultants. Determining needs and measuring relevant variables. Prereq: grad st; Bus Adm 731(P) or cons instr

737 Managerial Decisions and Negotiations. 3 cr. G. Provides frameworks for making effective decisions and negotiating viable solutions. Improves performance in these key managerial roles by engaging in case study, exercises, and industry projects. Prereq: grad st; BusMgmt 706(P)

795 Seminar-in-Management. (Subtitled) 1 - 3 cr. G. Intensive and critical examination of a specific management problem area or a related research question. Specific topic and additional prerequisites may appear in the schedule of classes each semester. Repeatable with change in topic. Prereq: grad st; appropriate management science core courses or cons instr

796 Competition and Strategy. 3 cr. G. An interdisciplinary analysis of forces that shape industry competition and a firm's competitive advantage. Focuses on strategies for success in high technology, mature, declining, and global industries. Prereq: grad st; BusMgmt 706

799 Reading and Research. 1 - 12 cr. G. Individual work suited to the needs of graduate students. May be retaken with change in topic with cons appropriate SBA prog committee. Prereq: grad st; cons instr

899 Management Research Project/Thesis. 1 - 6 cr. G. Original analysis of a management problem. Involves the application of the elements of scientific inquiry in the context of a contemporary problem. Prereq: grad st; cons instr

BUSINESS MANAGEMENT (BUSMGMT)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

709 Data Analysis for Management Applications. 3 cr. G. Developing statistical thinking through basic concepts for data analysis. Formulation of regression and related models, diagnostics, interpretations and reporting of statistical results for management applications. Prereq: grad st; BusMgmt 701(P)

712 Strategic Management. 3 cr. G. Tools for strategic thinking and developing competitive strategies. Analysis of forces that shape industry competition and competitive advantage. Management issues and internal functional strategies that lead to effective strategy implementation. Prereq: grad st; BusMgmt 704(P) & BusMgmt 710(P)

715 Leadership, Team Building, and Effective Management. 3 cr. G. Provides a working knowledge of team building, managing change, and effective business communication methods, and an understanding of leadership tools. Prereq: grad st

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Human Resources and Labor Relations:

Administrative Leadership 657 Principles of Adult Education. 3 cr, G.

Administrative Leadership 710 Organizational Change and Group Leadership. 3 cr, G.

Administrative Leadership 812 Educational Personnel Administration. 3 cr, G.

Administrative Leadership 852 Collective Bargaining and Contract Administration in Education. 3 cr, G.

Communication 665 Introduction to Mediation 3 cr, U/G.

Communication 865 Theory and Practice of Mediation 3 cr, U/G.

Criminal Justice 770 Organizational Behavior in Criminal Justice 3 cr, G.

Economics 310 Research Methods for Economists 3 cr, U/G.

Economics 415 Economics of Employment Relations 3 cr, U/G.

Economics 447 Labor Economics. 3 cr, U/G.

Economics 753 Collective Bargaining. 3 cr, G.

Economics 755 Comparative Industrial Relations and Labor Movements. 3 cr, G.

Educational Psychology 589 Workshop in Educational Psychology: (Subtitle - American with Disabilities). 1-6 cr, U/G.

History 440 History of the American Working Classes. 3 cr, U/G.

Nursing 630 Occupational Health and Safety. 3 cr, U/G.

Nursing 701 Women's Health in the Workplace. 3 cr, G.

Political Science 452 Administrative Law. 3 cr, U/G.

Political Science 470 Public Personnel Administration. 3 cr, G.

Political Science 733 Public Program Evaluation. 3 cr, G.

Political Science 769 Methods of Decision Making in Public Administration. 3 cr, G.

Sociology 443 Sociology of Occupations and Professions. 3 cr, U/G.

Sociology 732 Complex Organization. 3 cr, G.

Urban Studies 733 Public Program Evaluation. 3 cr, G.

Urban Studies 933 Development of the Workforce in American Cities, 1880 to the Present. 3 cr, G.

HUMANITIES

College of Letters and Science

Request information on-line

Courses

L&S-Humanities (L&S HUM)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

701 Topics in the Humanities: (Subtitled). 1-3 cr. G. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

800 Newberry Library Renaissance Seminar: (Subtitled). 1-3 cr. G. Graduate seminars at the Newberry Library on such topics as philology, paleography, and archival sciences. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/topic chg to 9 cr max. Prereq: grad st; cons major adviser & chair of Renaissance Advisory Comm

INTERNATIONAL STUDIES

College of Letters and Science

Request information on-line

Courses

International Studies (INTLST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

550 (effective 01/24/2005) Senior Seminar in International Studies: (Subtitled). 3 cr. U/G. Interdisciplinary seminar with emphasis on functional/regional problems in world affairs. Satisfies L&S Seminar & International reqs. Retakable w/chg in topic to 9 cr max. Prereq: sr st or cons instr or prog coord

550 Senior Seminar in International Studies: (Subtitled). 3 cr. U/G. Interdisciplinary seminar with emphasis on functional/regional problems in world affairs. Satisfies L&S Seminar & International reqs. Retakable w/chg in topic to 9 cr max. Prereq: sr st or cons instr or prog coord

KINESIOLOGY

College of Health Sciences

Degree Conferred: MS in Kinesiology
Phone: (414) 229-6080
FAX: (414) 229-2619
E-mail: hart@uwm.edu
Web site:
cfprod.imt.uwm.edu/chs/ugp/kin/index.html

The Master of Science degree in Kinesiology is a research-oriented program, multidisciplinary in nature, encompassing five human movement science disciplines: Biomechanics, Exercise Physiology, Motor Control, Psychology of Physical Activity, and Sociology of Physical Activity. Each of the five subdiscipline areas is supported by a research laboratory and at least one graduate faculty member holding a PhD and conducting ongoing research in the area. Eleven graduate faculty supervise thesis research, advise graduate students, and deliver the graduate curriculum.

Many of our current students and graduates work full-time as educators and health professionals and complete their degrees on a part-time basis. The program is designed to accommodate their needs as well as those of a growing cohort of full-time students.

At present, the program annually supports six half-time teaching assistants. In addition, a limited number of research assistantships and/or project assistantships become available on a year-to-year basis as faculty procure research grants and contracts.

Graduate Faculty

PROFESSORS

Duncan, Margaret C., Ph.D., Purdue University
Hasbrook, Cynthia A., Ph.D., University of Illinois, Chair
Snyder, Ann C., Ph.D., Purdue University

ASSOCIATE PROFESSORS

Hart, Barbara A., Ph.D., University of Massachusetts
Meyer, Barbara B., Ph.D., Michigan State University
Sander, Erika, Ph.D., University of California-Berkeley

ASSISTANT PROFESSORS

Earl, Jennifer, Ph.D., Pennsylvania State University
Ebersole, Kyle., Ph.D., University of Nebraska
O'Connor, Kristian M., Ph.D., University of Massachusetts-Amherst
Strath, Scott J., Ph.D., University of Tennessee-Knoxville
Swartz, Ann M., Ph.D., University of Tennessee-Knoxville

Master of Science in Kinesiology

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- A bachelor's degree in kinesiology, biology, nursing, occupational therapy, physical education, psychology, sociology, physical therapy, zoology or equivalent preparation.
- Undergraduate coursework in the two subdiscipline study areas selected by the student as indicated in the letter of application (e.g., exercise physiology and sociology).
- Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.
  The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. Applicants with undergraduate majors in areas other than those noted in this section may be admitted on a similar basis.
- Submission of scores on the General Test of the Graduate Record Examination.
- An applicant who does not meet minimum departmental or Graduate School entrance requirements, but meets Graduate School requirements for a probationary admission (see the Admission on Probation section of this Bulletin) should contact the Graduate Coordinator for additional probationary entrance requirement information.

Major Professor as Advisor
The Graduate School requires that each student have a major professor to advise, supervise and approve the program of study before registering for courses. The Graduate Coordinator may serve as the temporary advisor to incoming students.

Credits and Courses
The minimum degree requirement is 33 graduate credits for Option A and B. Option A students must take 9 credits of core courses: Introduction to Human Kinetics, Statistical Analysis in Human Kinetics, and Survey of Human Kinetics Research. Option B students must take 6 credits of core courses: Introduction to Human Kinetics and Statistical Analysis in Human Kinetics.

Students are expected to complete coursework in three of the five subdiscipline areas of study. All students are expected to identify a primary subdiscipline of interest and at least one supporting subdiscipline area. Students are encouraged to take supplemental graduate courses in other UWM graduate programs.

Option A: Thesis Option

Students prepare a research thesis, which will earn 6 credits within the required 33 graduate credit minimum. Each student is responsible for identifying a major professor and a thesis committee before completing 12 graduate credits. The thesis committee should consist of a minimum of three graduate faculty: the major professor from the student's primary subdiscipline, a departmental faculty member from the supporting subdiscipline, and one other departmental or other UWM graduate faculty member. The thesis committee approves a program of studies designed to lead the student into the the-

sis research area. To make subsequent changes, the student must petition the departmental Graduate Faculty Committee prior to any intended change.

Comprehensive Examination
The student must pass a comprehensive oral examination in defense of the completed thesis.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Option B: Non-Thesis Option

Of the 33 graduate credits required, students must successfully complete 6 credits of Hum Kin 891 - Research Seminar; 3 credits with the major professor and 3 credits with a professor representing the supporting area.

Comprehensive Examination
The student must pass a comprehensive written examination.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Courses

Human Movement Sciences (HUM KIN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

411 (Hum Kin 411) Design and Analysis of Adult Fitness. 3 cr. U/G. Selected methods and techniques for assessing physical fitness condition in normal healthy adults. Includes guidelines for graded exercise testing and exercise prescription. Prereq: jr st; HMS 330(Hum Kin 330)

520 (Hum Kin 520) Advanced Biomechanics. 3 cr. U/G. Emphasis on application of mechanical concepts in biomechanics research. Relationships among mechanics, energetics and control of human movement. Prereq: jr st; grade of C or better in Hum Kin 320(P), Math 117(P), Physics 110(R) or 120(R); or grad st or cons instr

530 (Hum Kin 530) Advanced Exercise Physiology. 3 cr. U/G. Advanced study of the physiological responses to exercise and the adaptations to physical training. Prereq: jr st; grade of C or better in HMS 330(Hum Kin 330)(P); Kinesiology major or intended major; or grad st

550 (Hum Kin 550) Psychological Aspects of Human Movement. 3 cr. U/G. Study of the relationships between psychological factors and human physical activity. Introduction to research relevant to sport and exercise psychology. Prereq: jr st; must have obtained a grade of C or better in HMS 350(Hum Kin 350)(P) or cons instr

551 (Hum Kin 551) Psychology of Injury/Illness/Disease: Implications/Strategies for Rehab. 3 cr. U/G. Explores the psychological aspects of health enhancement, disease prevention, and rehabilitation as well as the integration of behavioral and biomedical sciences in treating illness. May be used by undergrads to repeat HMS 590(Hum Kin 590) with same title. Prereq: Psych 101(P)

552 Psychology of Personal Excellence. 3 cr. U/G. Research on elite athletes, performing artists, and corporate executives is used to discuss characteristics of peak performance and identify strategies to facilitate personal excellence. Counts as repeat of HMS 590(HUM KIN 590) w/same topic. Prereq: jr st, grade of C or better in HMS 350(HUM KIN 350)(P); or grad st or cons instr

561 (Hum Kin 561) Control of Goal-Directed Voluntary Movement. 3 cr. U/G. An introduction to major theoretical and empirical perspectives used to examine generation and control of skilled, functional motor activity. Prereq: jr st; must have obtained a grade of C or better in HMS 461(Hum Kin 461)(P) or cons instr

570 (Hum Kin 570) Sociological Aspects of Physical Activity. 3 cr. U/G. Relationships between sociological factors and human physical activity. Introduction to research relevant to the sociology of sport and other forms of physical activity. Prereq: jr st; must have obtained a grade of C or better in HMS 351(Hum Kin 351)(P) or cons instr

590 (Hum Kin 590) Current Topics in Human Kinetics: (Subtitled). 1-3 cr. U/G. The specific topic will be announced in the Timetable each time the course is offered. May be repeated to max of 9 cr. Prereq: jr st, cons instr for grad cr

700 (Hum Kin 700) Introduction to Human Kinetics. 3 cr. G. Overview of subdisciplines comprising the human kinetics program (biomechanics, exercise physiology, motor learning/control, psychology, sociology) leading to an understanding of an integrative research approach. Prereq: grad st

702 (Hum Kin 702) Statistical Analysis in the Health Sciences. 3 cr. G. Univariate, bivariate, and multivariate analyses as they apply to health science research. Prereq: grad st; intro level statistics course at U/G or G level

703 (Hum Kin 703) Survey of Research in the Human Movement Sciences. 3 cr. G. Methods for multi-disciplinary human movement inquiry; problem/statistical design; critique of available literature; preliminary thesis/project design. Prereq: grad st; HMS 702(Hum Kin 702)(P)

725 (Hum Kin 725) Interdisciplinary Themes in Biomechanics. 3 cr. G. Emphasis on biomechanical research themes of an interdisciplinary character. Readings drawn from primary research literature. Prereq: grad st; HMS 520(Hum Kin 520)(P) or cons instr

730 (Hum Kin 730) Advanced Metabolic/Endocrine Physiology of Exercise. 3 cr. G. Study of muscle function, fuel utilization, endocrine function and temperature regulation during exercise and training. Prereq: grad st; HMS 530(Hum Kin 530)

731 (Hum Kin 731) Advanced Cardiorespiratory Physiology of Exercise. 3 cr. G. Examination of selected mechanisms regulating cardiovascular and pulmonary adjustments to acute and chronic exercise. Prereq: grad st; HMS 330(Hum Kin 330); HMS 530(Hum Kin 530)(R) & Bio Sci 715(R)

761 (Hum Kin 761) Concepts of Human Motor Control. 3 cr. G. A systematic examination of neuromotor control mechanisms and critical review of research in human motor behavior focusing on variables limiting or facilitating performance

and/or skill acquisition. Prereq: grad st, HMS 561(Hum Kin 561)(P) or cons instr

762 (Hum Kin 762) Research Practicum in Motor Control. 3 cr. G. Demonstration/participation laboratory focused on human motor control experimental design. Topics include sampling, subject protection, techniques for quantification of motor performance characteristics and neuromuscular correlates. Prereq: grad st; HMS 561(Hum Kin 561)(P) or cons instr

799 (Hum Kin 799) Independent Reading. 1-3 cr. G. Independent study of a topic selected by the student in consultation with the supervising graduate faculty member. May be repeated with change in topic to max of 6 cr. Prereq: grad st; cons instr

822 (Hum Kin 822) Biomechanics Research Practicum. 3 cr. G. Addresses research design issues, data collection and reduction techniques. Validity, reliability, and theory of biomechanics instrumentation systems (videography, cinematography, electromyography, force/torque transduction). Prereq: grad st; HMS 725(Hum Kin 725)(P) or cons instr

850 (Hum Kin 850) Seminar in Psychological Aspects of Physical Activity: (Subtitled). 3 cr. G. Advanced seminar on selected topics in the psychology of physical activity. May be repeated with change in topic to max of 6 cr. Prereq: grad st; HMS 550(Hum Kin 550)(P) or cons instr

851 (Hum Kin 851) Psychological Factors in Preventive and Rehabilitative Exercise. 3 cr. G. Advanced seminar in exercise psychology. Personal and social psychological factors relevant to preventive and rehabilitative exercise contexts are examined. Prereq: grad st; HMS 550(Hum Kin 550)(P) or cons instr

860 (Hum Kin 860) Seminar in Motor Control: (Subtitled). 3-6 cr. G. Advanced seminar on selected topics related to motor control and acquisition of movement skill. May be repeated with change of topic to max of 6 cr. Prereq: grad st; HMS 761(Hum Kin 761)(P); cons instr

870 (Hum Kin 870) Seminar in Sociological Aspects of Physical Activity: (Subtitled). 3 cr. G. Advanced seminar on selected topics in sociology of physical activity. May be repeated with change in topic to max of 6 cr. Prereq: grad st; HMS 570(Hum Kin 570)(P) or cons instr

871 (Hum Kin 871) Socialization and Physical Activity. 3 cr. G. Advanced seminar on research relevant to the development/lack of development of physically active lifestyles. Prereq: grad st; HMS 870(Hum Kin 870)(P) or cons instr

888 (Hum Kin 888) Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 (Hum Kin 890) Research Project. 1-3 cr. G. Preparation of a research project under the supervision of the student's major professor. Not open to students selecting options A or B. Prereq: grad st

891 (Hum Kin 891) Research Seminar. 3 cr. G. Advanced seminar on the synthesis and critique of research literature within the student's primary and secondary subdisciplines. Not open to option A or C students. Prereq: grad st; completion of all or conc reg in remaining coursework for degree

930 (Hum Kin 930) Practicum and Seminar in Exercise Physiology. 3 cr. G. Evaluation of current research and methodology in exercise physiology. Prereq: grad st; HMS 730(Hum Kin 730) or HMS 731(Hum Kin 731)

990 (Hum Kin 990) Research and Thesis. 1-6 cr. G. Preparation of a thesis under the direction of the student's primary and secondary advisors. May be repeated to max of 6 cr. Not open to students selecting options B or C. Prereq: grad st

LIBERAL STUDIES

College of Letters and Science

Degree Conferred: Master of Liberal Studies
Phone: (414) 229-5963
FAX: (414) 229-5964
E-mail: mls@uwm.edu
Web site: www.uwm.edu/Dept/MLS/

The College of Letters and Science offers an interdisciplinary graduate program leading to a Master of Liberal Studies. The MLS curriculum consists of small introductory seminars, special topics courses conceived exclusively for the program, electives taken in specific departments, and a final thesis or independent project. All courses are taught by graduate faculty drawn primarily from the College of Letters and Science and augmented by other interested instructors from across the University. Such faculty diversity allows students to expand their cultural and intellectual horizons through a carefully structured course of study that encourages multiple perspectives on important issues and integration of knowledge across disciplines.

The MLS program is housed in the internationally respected Center for Twenty-first Century Studies, which ensures access to leading scholars, outstanding facilities, special lectures and other events. Each fall a limited class of new students is admitted in order to maintain an intimate learning environment, and all courses are offered during evenings or weekends. Although the MLS is not a traditional graduate degree that focuses on a single academic field or set of professional skills, its emphasis on critical thinking, imaginative reflection, ethical consideration, and effective communication carries substantial value in both private and public life.

Graduate Faculty

(Professors' home departments appear in parenthesis)

PROFESSORS

Bellavance, Leslie, M.F.A., University of Chicago (Visual Art)
Hayes, Jeffrey R., Ph.D., University of Maryland (Art History), Program Director
Koethe, John L., Ph.D., Harvard University (Philosophy)
Merrick, Jeffrey, Ph.D., Yale University (History)
roberts, Sheila, D.Litt., University of Pretoria (English)
Schwertfeger, Ruth, B. Litt., Oxford Universtiy (Foreign Languages and Linguistics)
Verdier, Gabrielle, Ph.D., Yale University (French, Italian, and Comparative Literature)

ASSISTANT PROFESSOR

Hansen, Anne, Ph.D., Harvard University (History)

Master of Liberal Studies

Admission
To be considered for admission to the Master of Liberal Studies, an applicant must meet the requirements for admission to the Graduate School. For non-native speakers of English, demonstration of English proficiency for the MLS requires a TOEFL (Test of English as a Foreign Language) score of 600 on the old exam or 250 on the new, or a score of 7.0 on the IELTS (International English Language Testing System) exam, as well as a score of 50 on the TSE (Test of Spoken English). In addition, the applicant must submit an essay (two pages) describing why s/he is interested in pursuing graduate study in an interdisciplinary program and describing the educational background and life experiences that s/he brings to the program. An interview with the director of the program also is required.

Major Professor as Advisor
As specified in the regulations of the Graduate School, a major professor will be assigned to every person enrolled in the program to advise and supervise his or her work. Those admitted to the program will consult with the Director of the Master of Liberal Studies program for assistance in identifying an appropriate advisor. The responsibility of the advisor will be to assist in selecting a cohesive sequence of courses and developing a rationale for that sequence. The major advisor must approve the program of study.

Credits and Courses
Twenty-seven credits are required for the MLS degree, distributed as follows:

- ***Core courses (8 cr).*** All students must take a required introductory two-course sequence (4 credits for each course) designed to orient the individuals to the program, to establish a common base of knowledge in an interdisciplinary context, and to create a sense of intellectual community among the participants, many of whom may be re-entering the world of formal education.

- ***Special topics courses (6 cr).*** Participants must complete at least two courses from an array of special topics courses in a seminar format (3 credits each) offered under the LibrlSt curricular area number.

- ***Elective courses (9 cr).*** Participants select elective courses to total 9 credits from special topics courses offered under the MLS curricular area code, graduate courses offered within departments, and independent study (LibrlSt 799). Although the core and special topics courses that are designed specifically for the Master of Liberal Studies will be emphasized in all programs of study, participants may wish to take graduate courses offered by departments or to undertake independent study in order to pursue specific interests.

- ***Culminating project (4 cr).*** Participants must complete a culminating project, undertaken in a 4 credit independent study course (LibrlSt 798). This project, which must be interdisciplinary in nature, can take the form of a traditional research paper or thesis, but it also may adopt an alternative creative, performative, or occupationally-related practical model. The project must be approved by the student's advisor and the program director.

Transfer credits
Individuals with prior graduate course work may receive permission to count up to 9 credits of that work toward the Master of Liberal Studies if the Advisory Committee accepts the courses as relevant to the program of study and if the courses meet Graduate School requirements for trans-

fer. Liberal Studies core courses and the culminating project course must be taken at the University of Wisconsin-Milwaukee.

Time Limit
All degree requirements must be completed within five years of initial enrollment.

Courses

Liberal Studies (LIBRLST)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

701 Traditions and Transformations I: (Subtitled). 4 cr. G. A fundamental contemporary issue explored through a historical perspective; emphasis on the humanities. Interdisciplinary resources, methods, theories. Required special programs outside regular class hours. Not retakable. Prereq: grad st; admis to MLS Prog

702 Traditions And Transformations II: (Subtitled). 4 cr. G. Continuation of LibrlSt 701, exploring a contemporary issue within a more recent modern/postmodern context. Required special programs outside regular class hours emphasize course topics. Not retakable. Prereq: grad st; LibrlSt 701(P)

721 Special Topics in Liberal Studies: (Subtitled). 3 cr. G. Topics in human culture emphasizing the pervasiveness of a particular idea, belief, process, or other cultural construct in many facets of human society. Retakable w/chg in topic to 9 cr max. Prereq: grad st; admis to MLS Prog

722 Special Topics in Contemporary Cultural Studies: (Subtitled). 3 cr. G. Topics in contemporary culture; emphasis on literature, experimental arts/film, mass culture, performance; new approaches to study of culture, including media theory, multi-culturalism, feminism, post-colonialism. Retakable w/chg in topic to 9 cr max. Prereq: grad st; admis to MLS Prog

797 Special Topics In International Liberal Studies: (Subtitled). 3 cr. G. Examination of a belief, idea, process, or other cultural construct in an international setting. Retakable w/chg in topic to 9 cr max. Prereq: grad st; admis to mls prog

798 Liberal Studies Master's Project. 4 cr. G. Culmination of student's studies in MLS Program; may take any form appropriate to interdisciplinary focus of student's study prog, e.g. research paper, performance, literary/exhibition project. Prereq: grad st; 20 cr in the MLS Prog

799 Independent Work in Liberal Studies. 1-3 cr. G. Independent reading or project; topic selected in consultation with supervising professor. Prereq: grad st; admis to MLS Prog

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr will be assessed. Prereq: grad st

LIBRARY AND INFORMATION SCIENCE

School of Information Studies

Degree Conferred: Master of Library and Information Science
Phone: (414) 229-4707
FAX: (414) 229-4848
E-mail: info@slis.uwm.edu
Web site: www.uwm.edu/Dept/SOIS/

The School of Information Studies prepares students for careers in library and information professions. The School provides students with the opportunity to develop attitudes associated with progressive information services, and to develop an understanding of the value, role, and application of modern technology as it relates to library operations and the transfer of information. The School's graduate program is fully accredited by the American Library Association.

In harmony with the mission of the University of Wisconsin-Milwaukee, a major urban research institute, the School of Information Studies strives to make significant contributions towards extending and enhancing the quality of information services and the promotion of information and technological literacy to a diverse society. The School of Information Studies is committed to excellence in instruction, research, and service. Goals of the school are:

1. To prepare professionals who are able to provide leadership and adapt to change in a technological and knowledge-based environment for careers in libraries, school media centers, information systems, and related areas, according to accepted professional standards.

2. To enrich the library and information science profession through recruitment of students with strong academic skills from diverse cultural, geographic, and subject backgrounds.

3. To enable undergraduate students to achieve qualifications to pursue careers in the information professions through the provision of degree and certificate programs.

4. To enable students to develop specializations in the information professions at the graduate level through the provision of single and dual degree programs.

5. To promote a research orientation through participation in the Doctor of Philosophy degree program.

6. To contribute to the international knowledge base of library and information science through research and publication.

7. To facilitate the development, provision, and evaluation of library and information services through consultation services to individual organizations and leadership in professional associations locally, statewide, nationally, and internationally.

8. To offer opportunities for professionals and the wider community to update their skills and knowledge through advanced and continuing education courses, workshops, and programs offered nationally and internationally.

The purpose of the MLIS program is to prepare librarians and information professionals who are able to manage change in an urbanized, technologically oriented, and knowledge-based society. The MLIS program provides a systematic course of study which enables individuals with a strong service orientation to apply principles of library and information science, use current methods and tools, and recognize the value of research.

Students may elect to specialize according to the type of library or information service which best meets their needs: i.e., school, public, academic, or special; or to follow a more generalized approach.

Graduates of the Master of Library and Information Science degree program are expected to demonstrate the following competencies:

1. To apply scientific principles in developing and managing information resources designed to meet user needs and interests.

2. To analyze, describe, and organize resources for effective and efficient retrieval and dissemination of information.

3. To utilize knowledge of information sources, services, and systems to meet the informational needs of users.

4. To apply management principles in planning, developing, marketing, and evaluating library and information services.

5. To work in specialized areas of library and information service, utilizing knowledge obtained from concentrations within the School and in other disciplines.

6. To build upon current knowledge of information and communication theories and technologies in planning, design, development, and delivery of information services.

The master's degree program is designed to support each of these objectives with appropriate coursework and educational experiences.

The School of Information Studies in collaboration with the School of Education offers post-bachelor's programs leading to State of Wisconsin licensing as Initial Instructional Library Media Specialist, Instructional Library Media Specialist, and Instructional Library Media Supervisor.

Students admitted to the Master of Library and Information Science degree program can incorporate in their degree program the courses for these licenses to the extent that these courses satisfy the degree requirements, either as required core courses or as electives. Licenses will be granted only to those persons who are eligible to hold a Wisconsin license to teach in the elementary or secondary schools or who have completed an approved elementary or secondary classroom teacher preparation program. For additional information about these licenses and their relationship to the master's degree, consult the School Library Media Coordinator.

The advanced courses offered by the School of Information Studies may be elected on a non-degree basis by post-master's students who wish to continue their professional education or special competence in some phase of urban library and information services. See section below titled the "Certificate of Ad-

vanced Study in Library and Information Science" for a formal program of post-master's education. The School's graduate courses are also open to graduate students in other fields of study, provided that they have completed the appropriate basic courses (or their equivalent).

Coordinated Degree Programs
In cooperation with the Department of Music in the Peck School of the Arts, and the Departments of Anthropology, English, Geography, and History, the Urban Studies program, and the Foreign Language and Literature program in the College of Letters and Science, the School of Information Studies offers the following coordinated degree programs:

MM/MLIS. Master of Music/Master of Library and Information Studies program to prepare students for positions as music librarians. Students in the MM degree program will pursue a concentration in Music History and Literature, 54 credits.

MA/MLIS. A Master of Arts in Geography/Master of Library and Information Science program to prepare students for positions as map librarians, 48 credits.

MA/MLIS. A Master of Arts in History/Master of Library and Information Science program to prepare students for positions as archivists, 48 credits.

MS/MLIS. A Master of Science in Urban Studies/Master of Library and Information Science program to prepare students for positions as urban information specialists, 54 credits.

MAFLL/MLIS. A Master of Arts in Foreign Language and Literature/Master of Library and Information Science program to prepare students for positions as librarians in a variety of libraries and curators of special subject collections, 51 credits.

MA/MLIS. A Master of Arts in English/Master of Library and Information Science program to prepare students for positions as humanities librarians and curators of special subject collections in the humanities, 51 credits.

MS/MLIS. A Master of Science in Anthropology/Master of Library and Information Science to prepare students for positions as curators of museum libraries and as information specialists and researchers for local history collections and state historical societies, 51 credits.

Prerequisite to the award of either degree in these coordinated programs is the simultaneous award of its counterpart degree. For additional information on these programs, see the Music, Geography, History, Urban Studies, Foreign Language and Literature, English, and Anthropology sections of this Bulletin.

Under the auspices of the doctoral program in Urban Education, the School of Information Studies provides doctoral training with a specialization in Educational and Media Technology. Prospective doctoral students wishing to specialize in Educational and Media Technology must first be admitted to the Urban Education Doctoral Program. Admission and general program requirements can be obtained from the Director of Doctoral Studies in Urban Education. This specialization is described in detail in the Urban Education section of this *Bulletin*.

Graduate Faculty

PROFESSORS

Aman, Mohammed, Ph.D., University of Pittsburgh
Olson, Hope, Ph.D., University of Wisconsin-Madison
Wolfram, Dietmar, Ph.D., University of Western Ontario

ASSOCIATE PROFESSORS

Dimitroff, Alexandra, Ph.D., University of Michigan
Koohang, Alex, Ph.D., Southern Illinois University-Carbondale
Lipinski, Tomas, Ph.D., University of Illinois at Urbana-Champaign
Walker, Thomas, Ph.D., University of Illinois at Urbana-Champaign, Interim Dean
Xie, Hong, Ph.D., Rutgers University
Zhang, Jin., Ph.D. University of Pittsburgh

ASSISTANT PROFESSORS

Buchanan, Elizabeth, Ph.D., University of Wisconsin-Milwaukee
Du Plessis, Jacques, Ph.D., Utah State University
Greever, Ellen, Ph.D., University of North Carolina
Haigh, Maria, Ph.D., Drexel University
Haigh, Thomas, Ph.D., University of Pennsylvania
Jeong, Wooseob, Ph.D., Florida State University
Johnson, Catherine, Ph.D., University of Toronto
Lee, Hur-Li, Ph.D., Rutgers University
Mu, Xiangming, Ph.D., University of North Carolina - Chapel Hill

Master of Library and Information Science

Application
The student must apply to both the Graduate School and the School of Information Studies.

Admission
An applicant must meet Graduate School requirements plus the following additional requirements of the School of Information Studies to be considered for admission to the program:

- Submission of scores on the General Test of the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). (GRE or MAT scores are currently required of domestic applicants and will be required of international applicants beginning with the summer 2004 admission term.) The test scores should be sent directly to the SOIS. This requirement will be waived for applicants whose overall undergraduate GPA, as calculated by the UWM Graduate School, is at least 3.25, or who already hold another master's degree or Ph.D., or the equivalent.
- Applicants from foreign institutions are required to submit the Test of English as a Foreign Language (TOEFL) score. The minimum acceptable score is 550 (213 CBT). A score of 6.5 or higher on the International English Language Testing System (IELTS) may be submitted in lieu of the TOEFL.
- Two letter of recommendation from persons who can testify to the applicant's likelihood of success in the master's program in library and information science. References from former teachers or employers are preferred.

No prior coursework in library/information science is required. A student whose undergraduate grade point average is below 2.75 (4.0 basis) may be considered for admission on probation. See the Admission on Probation section of this Bulletin.

Faculty Advisor
Each student is assigned a faculty advisor in the School of Information Studies at the time of admission to the master's program. The name of the faculty advisor is included in the student's letter of admission and may also be obtained from an academic advisor in the School of Information Studies.

Credits and Courses
The minimum degree requirement is 36 graduate credits, 30 of which must be in library and information science and up to 6 of which may be in related areas. Students who have already completed a master's or doctoral degree in a field other than library science may have the library and information science master's program reduced to 30 credits. Under special circumstances, up to 6 of these credits may be from another field in a closely allied area with advisor consent. Students who have completed library science courses at the undergraduate level may, upon request, have their coursework reviewed to determine whether the content was the equivalent of that in required courses in the School of Information Studies Program. However, the establishment of such equivalencies will not reduce the total number of credits required for the master's degree in library and information science, but merely enable the student to avoid unnecessary repetition.

The number of credits needed for each of the coordinated degree programs is 12 credits less than the sum of credits of the two programs if taken separately. All degree requirements of each component program, however, must be satisfied. This includes makeup courses for deficiencies, required courses, and graduation proficiency requirements. The MLIS component of each coordinated program includes 30 credits of SOIS courses including the 15 credits of required courses.

The following are basic required courses:

510 Introduction to Reference Services and Resources, 3 cr.
520 Managing Library Collections, 3 cr.
531 Organization of Information, 3 cr.
540 Management of Libraries and Information Services, 3 cr.
550 Introduction to Information Science, 3 cr.

These courses (or their equivalent) must be completed by full-time students by the end of their second semester; for part-time students, two of the courses must be completed by the end of the second semester, and all five by the end of the fifth semester for coursework in the School of Information Studies.

Minimum Grade Requirement in the Basic Required Courses
The minimum grade requirement for 510, 520, 531, 540, and 550 is a B. Students who earn a grade of B- or lower have not met the minimum requirement and will be allowed to repeat the core course once. Students are responsible for tuition in the repeated course. Those who do not meet the minimum grade requirements upon repeating the course will be recommended for academic dismissal. Students may not register for a course for which any of the core courses is a prerequisite until the minimum grade requirement is met.

Proficiency Requirement in Library and Information Science
This course of study requires students to demonstrate proficiency in the field of library and information science. There are two options for completing the proficiency requirement: passing a comprehensive examination or completing and successfully defending a thesis.

Comprehensive Examination
Students choosing the comprehensive examination option must successfully pass a written comprehensive examination. A student who fails the examination the first time may repeat it once. However, a student who fails the examination may not select the thesis option.

Thesis Option
Students choosing the thesis option must take at least three credits of thesis coursework in addition to the 36 credits required for the comprehensive examination option, making the minimum credits required for the thesis option 39 credits. However, only 3 credits of thesis coursework may count towards the total degree credit requirement of 39. Those who already have a graduate degree must complete a minimum of 33 credits for this option.

Students who choose the thesis option in the coordinated master's degree programs also need to take an additional 3 credits of thesis coursework. Thus, while total degree credits vary among the coordinated master's programs, the Master of Library and Information Science component of each requires 33 credits of SOIS course work, three of which would be taken as thesis credit. Students pursuing thesis options in both programs will be required to fulfill each program's thesis requirement and complete two separate theses.

Students in the thesis option also must take a minimum of three credits of research methods. More may be required by individual circumstances, but only the first three credits may count toward degree credit requirements. Either 540-890, Research Methods in Library and Information Science, or a comparable course chosen in consultation with the major professor, can contribute towards satisfaction of this requirement. Students must complete the five core courses in addition to the research methods requirement before defense of the thesis proposal can occur.

Students must register for a variable credit thesis research course L&I Sci 540-898: Master's Thesis (1-3 credits), during every semester of thesis work.

Students may select the thesis option at any point in their course of study, but are encouraged to make this decision and form their thesis committee as early as possible to avoid the necessity of taking additional coursework. The faculty advisor assigned to each student upon admission may serve as the student's thesis advisor, but is not required to do so. It is the student's responsibility to enter into a mutually agreed upon advising relationship with a thesis advisor in SOIS, who then serves as chair of the thesis committee.

Likewise, a student may withdraw from the thesis option and pursue the comprehensive examination option; however, the student would need to meet the registration and other requirements for the comprehensive examination set forth in SOIS policies and procedures as published in the SOIS Bulletin.

Students must pass an oral examination in defense of the thesis. The thesis defense may be repeated once.

Time Limit
Students in the 36-credit program must complete all degree requirements within seven years of initial enrollment. Students in the 30-credit program must complete all degree requirements within five years of initial enrollment.

Certificate of Advanced Study in Library and Information Science

Attainment of this certificate can be identified as an advanced educational step for individuals who have demonstrated the capabilities and competencies needed by the profession. Such persons can respond to the rapid changes in the field of library and information science through this planned academic program of specialization.

Admission
Applicant must apply to the Graduate School for admission as a School of Information Studies Non-Degree Candidate and meet these requirements:

- A Master of Library and Information Science degree, or a master's degree in a closely related field such as computer science or educational technology, from an accredited university. Candidates with little or no background in library science will be required to take some courses from the MLIS program.
- Two letters of recommendation.
- A statement from the applicant which would describe the individual's area of interest and career plan and identify the professional objectives which the applicant would hope to achieve through participation in the Certificate of Advanced Study in Library and Information Science.

Course of Study
The student must complete 15 credits. Courses are planned by the candidate and faculty advisor and approved by the Dean of the School of Information Studies as an individual program suited for the needs and professional objectives of the student.

- A minimum of 12 of these credits must be taken in the School of Information Studies.
- Up to 3 hours of credit may be taken in another school or department of the University of Wisconsin-Milwaukee.
- A maximum of three graduate credit hours may be transferred from another accredited university provided that the courses are relevant to the candidate's professional objectives and are included as part of the total approved program.
- No thesis is required, but students may obtain up to three hours of credit in independent research which is included as part of the total approved program.

A grade point average of 3.0 (B on the scale of 4.0) must be maintained. The program must be completed within a period of four years from the date of admission.

Instructional Library Media Certification Programs

Courses required for the Initial Instructional Library Media Specialist License are:

L&I Sci 510 Introduction to Reference Services and Resources, 3 cr.
L&I Sci 520 Managing Library Collections, 3 cr.
L&I Sci 531Organization of Information, 3 cr.
L&I Sci 540 Management of Libraries and Information Services, 3 cr.
L&I Sci 550 Introduction to Information Science, 3 cr.
L&I Sci 631 Cataloging and Classification, 3 cr
L&I Sci 632 Microcomputers for Information Resources Management, 3 cr.
L&I Sci 648 Library Materials for Children, 3 cr.
L&I Sci 658 Library Materials for Young Adults, 3 cr.
L&I Sci 670 Instructional Technologies, 3 cr.
L&I Sci 672 School Library Media Programs and Resources, 3 cr.
L&I Sci 690/990 School Library Practicum, 3 cr.
L&I Sci 757 Library Services for Children and Young Adults, 3 cr.
L&I Sci 891 Advanced Topics in Library and Information Science, 1-3 cr.
CurrIns 701 Curriculum Planning (if not taken previously), 3 cr.
Ed Psy 330 Introduction to Learning and Development, 3 cr.
or Ed Psy 631 Cognition: Learning, Problem Solving and Thinking, 3 cr.

Courses required for the Instructional Library Media Supervisor License* (91) are:

Ad Ldsp 702 Leadership in Educational Organizations, 3 cr.
Ad Ldsp 712 Instructional Leadership, 3 cr.
Ad Ldsp 812 Educational Personnel Administration and Supervision, 3 cr.
L&I Sci 776 Administration of School Library Media Systems, 3 cr.

*Note: Requires a master's degree in library/media.

Courses

Information Studies (L&I SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

470 Introduction to Legal Bibliography. 3 cr. U/G. A study of legal sources of federal and Wisconsin law including the use of law finders, statutes, cases and digests. Prereq: jr st

475 Legal Aspects of Information Products and Services. 3 cr. U/G. Introduction to legal environment surrounding development and use of information products and services, including intellectual property, and issues specific to internet and other digital mediums. Prereq: jr st

480 Books, Paper, and Their Preservation. 1 cr. U/G. History, theory, and practical application of conservation solutions currently practiced by professional conservators. Prereq: jr st

510 Introduction to Reference Services and Resources. 3 cr. U/G. An investigation into reference services, reference interviews, and organization, including

critical examination of basic reference collections for various types of libraries. Prereq: jr st

520 Managing Library Collections. 3 cr. U/G. Theory and practice involved in managing information collections in all formats: selection tools, criteria, methods, collection evaluation, deaccessions. Principles of intellectual freedom are discussed. Prereq: jr st

531 Organization of Information. 3 cr. U/G. Introduction to basic concepts in the theoretical, practical, and technological aspects of information organization. Not open for cr to students with cr in L&I SCI 530. Prereq: jr st

540 Management of Libraries and Information Services. 3 cr. U/G. The library/information center as a service organization. Management of the library/information center: planning, budgeting, decision making, leadership styles, motivation, communication, personnel management. Prereq: jr st

550 Introduction to Information Science. 3 cr. U/G. An overview of information science, including: the nature of information bibliometrics, information policy, information retrieval, communications and artificial intelligence. Prereq: jr st

615 Information and Records Management. 3 cr. U/G. Principles and practices of information and records management: organizational information needs, retention, schedules, vital records protection, micrographics, records centers and records management policy. Prereq: jr st

620 Ethics and the Information Society. 3 cr. U/G. Ethical traditions, concepts, and principles for the information professions in the global information society; ethical implications of information technologies. Prereq: jr st; L&I Sci 110(P) or 550(P) or cons instr. Counts as a repeat of L&I Sci 691 with similar topic/title

625 Information Policy. 3 cr. U/G. Explore various aspects of information policy including privacy, intellectual property, and intellectual freedom; covers applicable methodologies. Prereq: jr st

630 Indexing and Abstracting. 3 cr. U/G. Fundamental principles, practices and procedures of indexing and abstracting. Focus on document analysis, vocabulary control, thesaurus construction, and design and evaluation of indexing systems. Prereq: jr st; L&I Sci 531(P)

631 Cataloging and Classification. 3 cr. U/G. Principles and methods of organizing library materials. Fundamentals of descriptive cataloging and primary systems of subject representation. Prereq: L&I Sci 531(P) or 672(P)

632 Microcomputers for Information Resources Management. 3 cr. U/G. Use and applications of microcomputers in various library and information management functions. Requires 1-2 hrs of weekly laboratory time. Prereq: jr st & cons instr

635 (445) Digital Libraries. 3 cr. U/G. Concepts and technologies for development of digital libraries. Topics include tools for multimedia digitization, organization of digital resources, and evaluation of digital libraries and gateways. Prereq: jr st & L&I Sci 230(P) or 550(C); or grad st

637 Information Storage and Retrieval. 3 cr. U/G. Fundamental analysis and design principles and theories used in systems for the storage, processing, and retrieval of information. Prereq: Jr st, & L&I Sci 110(P) or 550(P); or grad st

640 Information Marketing. 3 cr. U/G. Concepts and principles of marketing and strategic planning as they apply to libraries and information agencies; case studies in information brokering and repackaging. Prereq: jr st

648 Library Materials for Children. 3 cr. U/G. Introduction to print and media resources available in library collections; selection procedures, evaluation criteria, access and promotion of use of materials. Prereq: jr st

658 Library Materials for Young Adults. 3 cr. U/G. Criteria for evaluation and selection of materials for young adults, emphasizing current resources, techniques of reading guidance and book talks. Prereq: jr st

670 Instructional Technologies. 3 cr. U/G. Traditional technologies, multimedia formats, and computer-based technologies for instructional purposes. No degree cr for students with cr in L&I Sci 668 or 669. Prereq: jr st; L&I Sci 632

672 School Library Media Programs and Resources. 3 cr. U/G. A study of the functions of the school library media center as an educational component including service, administration, collection development and utilization of materials. Prereq: jr st; L&I Sci 510(P); 520(P); 530(P) or 531(P)

680 History of Books and Printing. 3 cr. U/G. The people, ideas, and events in the history of bookmaking from ancient times to the 1890's. Prereq: jr st

681 Using Archives: The Value of Primary Sources in the Information Age. 3 cr. U/G. An introduction to archives, the archives profession, the many uses of archival primary sources in academic research, and current issues regarding archives and the internet. Prereq: jr st

683 Cartographic Resources in Libraries. 3 cr. U/G. The nature, variety, and history of cartographic resources. How these fit into the world of information and how they differ from traditional library materials. Prereq: jr st; cons instr

686 Music Librarianship. 3 cr. U/G. Examination of materials used in obtaining music information and in establishing bibliographic control. Emphasis on reference, library instruction, collection management, and organization of music collections. Prereq: jr st; L&I Sci 510(P); 530(P) or 531(P)

690 School Library Practicum. 3 cr. U/G. Field experience of 150 hours in elementary and secondary school library media services under faculty and field supervisor guidance. Prereq: jr st; school library media cert prog students only; L&I Sci 510(P), 520(P), & 530(P) or 531(P)

691 Special Topics in Information Science: (Subtitled). 1-3 cr. U/G. An exploration of current topics in information science. Specific topics and any additional prerequisites will be announced in Timetable each time course is offered. May be retaken with change in topic to max of 9 cr. Prereq: jr st; cons instr

710 Electronic Networking and Information Services. 3 cr. G. Outlines basic concepts of communication technology, electronic networking, and available information resources and services for information professionals. Prereq: grad st; L&I Sci 510(P), 550(P) or cons instr

742 Advanced Use of Microcomputers in Library and Information Manage-

ment. 3 cr. G. Study of microcomputer data base management software (DBMS) and information retrieval (IR) systems and their potential applications for information services. Prereq: grad st; L&I Sci 632(P) & 774(P) or cons instr

751 Library Services and Resources for Adults. 3 cr. G. Introduction to the wide range of services and materials with which the library meets the needs of adult patrons. Prereq: grad st; L&I Sci 510(C), 520(C)

757 Library Services for Children and Young Adults. 3 cr. G. A foundation for developing, planning, and programming library services to meet the needs and interests of children and young adults; attention to content and evaluation of literature for these groups. Prereq: grad st and L&I Sci 648 or 658

770 The Academic Library. 3 cr. G. Administration of the college and university library, including a study of budgets, personnel, building and collections requirements, and cooperative programs. Prereq: grad st; L&I Sci 510(C); 520(C); 530(P) or 531(C); 540(R); & 550(C)

771 The Public Library. 3 cr. G. Overview of issues and functions of american public libraries; including trends in governance, program planning and evaluation, community analysis, alternative funding, library use and users. Prereq: grad st; L&I Sci 510(C); 520(C); 530(P) or 531(C); 540(P); 550(C)

772 The Special Library and Information Center. 3 cr. G. The role of the information center in specialized environments, including functions, service responsibilities, programs, trends, and problems and issues unique to a special library environment. Prereq: grad st; L&I Sci 510(P); 520(P); 530(P) or 531(C); 540(P); and 550(C)

774 Online Information Retrieval. 3 cr. G. Study of the organizational, operational and developmental aspects of on-line database services, including an overview of the on-line community. Students must spend one hour per week in an 0n-line laboratory session. Prereq: grad st; L&I Sci 510(P); 530 or 531(P); 550(C)

775 Modern Archives Administration. 3 cr. G. For students particularly interested in archives administration, library science, historical agencies administration, or the teaching of history; the theory and practice of modern records administration. Lec, lab. Counts as repeat of Hist 775. Prereq: grad st & cons instr

776 Administration of School Library Media Systems. 3 cr. G. Organizational and managerial aspects of administering school library media systems. Includes study of organizational structures, personnel, budgetary problems, programs and services, and research in the field. Prereq: grad st & L&I Sci 672(P)

777 Seminar in Modern Archives Administration. 3 cr. G. This seminar provides students an opportunity to explore in depth several aspects of archival work through extensive readings, discussions, practical exercises and a major seminar paper. Counts as repeat of Hist 777. Prereq: grad st; Hist 775(P) or L&I Sci 775(P) or cons instr

778 Archival Outreach: Programs and Services. 3 cr. G. Specializing in archival outreach and reference services, this course will introduce students to the purpose of a sustainable, ongoing archival program committed to public service. Prereq: grad st; L&I Sci 681(C),775(C); or cons instr

779 Arrangement and Description in Archives. 3 cr. G. This course will provide students with the intellectual framework and critical evaluation necessary for the arrangement and description of archival collections. Prereq: grad st; L&I Sci 681(C), 775(C); or cons instr

781 Library Automation. 3 cr. G. The current status of automation and network activities among libraries, including an exploration of problems and prospects. Prereq: grad st; L&I Sci 530 or 531(P)

782 Information Systems: Analysis and Design. 3 cr. G. Analysis, design, and evaluation of information systems. The information system mission, goals and objectives are used to develop measures for judging system effectiveness and efficiency. Prereq: grad st; L&I Sci 550(P)

784 Advanced Topics in Information Retrieval: (Subtitled). 1-3 cr. G. Advanced organizational, operational, and theoretical concepts of discipline-specific or system-specific electronic information retrieval. Specific topic and prerequisities announced in the schedule of classes. May be repeated with change in topic to max of 6 cr. Prereq: grad st

790 Fieldwork in Archives and Manuscripts. 1-3 cr. G. Field experience of 50 to 150 hours in an archives or manuscript repository under faculty and field supervisor guidance. Student must also complete a supervised field project. May be repeated for total of 3 cr. Prereq: grad st; L&I Sci 510, 540; L&I Sci 775 or Hist 775; cons instr

791 Topics in Information Organization: (Subtitled). 1-3 cr. G. Book and periodical indexing, thesaurus construction, abstracting. Specific topic announced in Timetable. May be repeated w/ chg in topic to 6 cr max. Prereq: grad st; L&I SCI 530 or 531(P) & 550(P)

801 Doctoral Seminar: Issues in Educational and Media Technology. 3 cr. G. Interdisciplinary overview of research and theories in educational and media technology. Emphasizes cognitive bases of knowledge transfer and implications for instructional systems design and technology. Prereq: grad st; cons instr; Educ 701

811 Information Sources and Services in the Social Sciences and Humanities. 3 cr. G. A study of the reference literature of the social sciences and humanities; the structure of the literature and organizations in each field. Prereq: grad st & L&I Sci 510 (P)

813 Information Sources and Services in Science and Technology. 3 cr. G. A study of the reference literature of science and technology; the structure of the literature; and services of the various information sources in those fields. Prereq: grad st; L&I Sci 510(P)

814 Government Information Sources and Services. 3 cr. G. Availability, selection, and use of federal, state, and local documents; international organization documents; or documents of selected foreign governments. Prereq: grad st & L&I Sci 510(P)

816 Competitive Intelligence and Business Information. 3 cr. G. Information services and basic sources in business and competitive intelligence. Prereq: grad st; L&I Sci 510(P)

817 Information Sources and Services in the Health Sciences. 3 cr. G. A survey of the basic sources used to locate

information in the fields of medicine, nursing, allied health and health care administration, along with an introduction to the traditional & innovative services offered by health science libraries. Prereq: grad st; L&I Sci 510(P) & 520(C)

820 Seminar in Intellectual Freedom. 3 cr. G. Principles and practices of intellectual freedom, as related to the information professions. Emphasizes, but is not limited to, current issues in the u.s. Prereq: grad st; L&I Sci 520(P) or cons instr

825 Legal Issues for Library and Information Managers. 3 cr. G. Legal issues arising in various library settings, including access rights, privacy and confidentiality, copyright, intellectual freedom and information liability and malpractice. Prereq: grad st

840 Seminar in International and Multicultural Information Services. 3 cr. G. Implications of global and multicultural trends for information services. Creation, diffusion and use of information in cross-cultural settings. Prereq: grad st; L&I Sci 540(P) & 550(P); or cons instr

876 Seminar in Library Administration. 3 cr. G. Selected problems of administration in all types of libraries. Topics may include areas such as library financial planning, staffing or facilities management. Prereq: grad st; L&I Sci 540(P), 510(C), 520(C); or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee assessed for 1 cr. Prereq: grad st

890 Research Methods in Library and Information Science. 3 cr. G. Introduction to the methodologies of research and their uses in library and information science. Practice in analyzing and appraising examples of research in library and information science. Prereq: grad st; L&I Sci 510(P); 520(P); 530 or 531(P); 540(P); 550(P)

891 Advanced Topics in Library and Information Science: (Subtitled). 1-3 cr. G. Seminar in advanced current topics in library and information science. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st; cons instr

898 Master's Thesis. 1-3 cr. G. Research and writing in consultation with SOIS thesis advisor for M.L.I.S. candidates pursuing the Thesis Option. May be repeated until completion and defense of the thesis. Prereq: grad st; L&I Sci 510(P), 520(P), 530 or 531(P), 540(P), 550(P), & 890(P) or equiv; approval of thesis advisor

990 Fieldwork in Library and Information Science Services. 1-3 cr. G. Fieldwork experience of 50 to 150 hours under faculty and field supervisor guidance. Student must also complete a supervised field project. May be repeated to max of 6 cr with cons adviser. Prereq: grad st; L&I Sci 510(P), 520(P), 530(P), 540(P) & 550(P); cons instr

998 Doctoral Dissertation. 1-3 cr. G. Doctoral dissertation research and advisement for multidisciplinary phd candidates with an emphasis in library and information science. May be repeated for max of 12 cr. Prereq: doctoral candidacy & cons doctoral advisor

999 Independent Research. 1-3 cr. G. In-depth research under faculty guidance, on a special aspect of library and information services. Regular faculty consultation and written research report(s) required. Carries 3 cr limit for MLIS; may be repeated to 6 cr max for advanced certificate students. Prereq: grad st; L&I Sci 510(P), 520(P), 530(P), 540(P), & 550(P); L&I Sci 890(P) or cons instr

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Library and Information Science.

CurrIns 649 (Children's Literature.) 1-4 cr, U/G.

CurrIns 650 (Reading Interests of Adolescents.) 1-4 cr, U/G.

English 810 (Seminar in Bibliography and Textual Criticism) 3 cr, G.

MASS COMMUNICATION

College of Letters and Science

Degree Conferred: MA in Mass Communication
Phone: (414) 229-4436
E-mail: pritchar@uwm.edu
Web site: www.uwm.edu/Dept/JMC/

The Department of Journalism and Mass Communication offers a Master of Arts degree designed to bridge the gap between professional work in mass communication and critical thought about the media. About half of the MA program's students work full time, often in journalism, public relations, or other communication-related areas. The MA program is designed so that working students may earn an MA by taking evening courses and completing a thesis.

The blend of professional and scholarly concerns that is evident in the design of the program and its courses reflects the interests and background of the faculty. All of the faculty in the Department of Journalism and Mass Communication worked in the mass media before moving into the academic world. Students and faculty alike use Milwaukee as a living laboratory for studies of media processes and effects.

The faculty of the Department of Journalism and Mass Communication have national reputations in teaching and research. Areas of faculty expertise include media audiences, journalistic practices, communication law and history, public relations, environmental communication, media ethics, cultural studies of media, and political communication.

Graduate Faculty

PROFESSORS

Backes, David, Ph.D., University of Wisconsin-Madison
Pritchard, David, Ph.D., University of Wisconsin-Madison
Smith, Jeffery, Ph.D., University of Wisconsin - Madison

ASSOCIATE PROFESSORS

Allen, David, Ph.D., University of Minnesota, Chair
Bailey, George, Ph.D., University of Wisconsin-Madison

ASSISTANT PROFESSORS

Brewer, Paul, Ph.D., University of North Carolina-Chapel Hill
Levine, Elana, Ph.D., University of Wisconsin-Madison
Ley, Barbara, Ph.D., University of California-Santa Cruz
Zhang, Jing, Ph.D., University of Illinios - Champaign/Urbana

Master of Arts in Mass Communication

Admission
An applicant must meet Graduate School requirements plus the following departmental requirements to be considered for admission to the program:

- Present an overall undergraduate grade point average of 3.00 or above.
- Submit three letters of recommendation from persons capable of judging the applicant's capacity for success in a graduate program of study.
- Submit scores from the General Test section of the Graduate Record Examination.
- Submit a sample of original writing in English — a piece of academic or professional work, or a brief essay about a topic of the applicant's choice.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. Applicants may be considered for admission on probation. See the Admission on Probation section of this Bulletin.

International students, in addition to satisfying the Graduate School's requirements for English language proficiency, must submit TOEFL scores sufficiently high to meet program standards.

Advisors
Each student will be assigned a faculty advisor upon enrollment in the M.A. program. Students consult with their advisors about which courses to take and about any other matters related to graduate study. Before students enroll in thesis/project credits, they must ask a faculty member to be their major professor. The major professor does not need to be (and often is not) the faculty member initially assigned to be the student's advisor. The major professor guides the student in preparing a thesis/project proposal, provides advice on the thesis/project research, and chairs the thesis/project committee.

Courses and Credits
Students must take 30 graduate credits, at least 24 of which must be in courses offered by the Department of Journalism and Mass Communication. Two courses are required of all students:

Mass Comm 700 Introduction to Graduate Study in Mass Communication
Mass Comm 701 Mass Communication Theory and Research Design

Students also must also take at least two 800-level seminars offered by the Department of Journalism and Mass Communication, at least one of which must be either 810, 815, 830, or 840.

Thesis/Professional Project
All students write a thesis based on original research. Before beginning work on a thesis, the student must ask a member of the Mass Communication graduate faculty to supervise the thesis (i.e., to serve as "major professor"). The major professor chairs the thesis committee, which also includes two other members of the graduate faculty, one of whom may come from a department other than Journalism and Mass Communication.

The major professor advises the student on the appropriate format for a formal thesis proposal, which must be approved by the thesis committee. After the thesis proposal has been approved, the student

carries out the proposed research.

The thesis committee evaluates the written thesis and conducts an oral examination at which the student defends his or her research. A student receives credit for the thesis only if all three members of the committee approve the thesis.

Comprehensive Examination
A comprehensive examination is required for all students not electing the thesis or professional project option. The student must pass a written and oral examination, given by a faculty committee chaired by the major professor, demonstrating proficiency to integrate knowledge within and between concentration areas in the program. Comprehensive examinations are 10 hours in length, require preparation beyond coursework taken in the program of study, and may not be attempted before the semester in which the student will complete all required coursework in the program.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Courses

Journalism/MassCommunication (JMC)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

500 Advanced Reporting. 3 cr. U/G. Advanced writing and reporting for newspapers, magazines, and the internet; emphasis on developing longer stories. Prereq: jr st; grade of C or better in JMC 203(P)

505 Research for Advertising, Public Relations, and Journalism. 3 cr. U/G. How professionals in mass communication use research to evaluate campaigns, survey public opinion, test commercials, interpret ratings, and report the news. Prereq: jr st

542 Television News Reporting. 5 cr. U/G. Reporting, writing, and editing television news, including field camera operation and video editing. Prereq: jr st, grade of C or better in JMC 242(P), & declared JMC major or minor; or grad st

553 Broadcast Program Planning and Management. 3 cr. U/G. Management of programming, sales, and audience research for radio, television, and cable. Prereq: jr st

556 Media Literacy. 3 cr. U/G. Application of general semantics and other critical thinking principles to reporting methodology and news judgment. Prereq: jr st

559 Law of Mass Communication. 3 cr. U/G. Freedom of expression and legal issues in journalism, public relations, advertising, and other forms of mass communication. Prereq: jr st

560 History of Mass Media. 3 cr. U/G. Evolution of mass media in the United States; how technological, cultural, political and economic changes have affected the media. Prereq: jr st

562 Media Studies and Culture. 3 cr. U/G. Mass media and the production of culture; media industries, content, and audiences; focus on contemporary issues. Prereq: jr st; grade of C or better in JMC 262(P)

600 Off-Campus Internship. 3 cr. U/G. Professional internship in journalism, public relations, advertising, or other mass communication field. Prereq: jr st & declared JMC major, or grad st; cons internship committee

614 Mass Media and Public Opinion. 3 cr. U/G. Techniques in measurement of public opinion and attitudes. Factors determining opinions; effect of propaganda. Role of mass media of communication in the formulation of opinions. Prereq: jr st

615 The Mass Media and Politics. 3 cr. U/G. How journalism, public relations, advertising, and the internet affect politics and political decisions Prereq: jr st

620 Global Media Systems. 3 cr. U/G. Economic, regulatory, and cultural characteristics of national and global mass media. Satisfies L&S International req. Prereq: jr st

660 Contemporary Issues in Mass Communication: (Subtitled). 3 cr. U/G. Research-oriented approaches to theoretical and social issues in mass communication. Retakable w/chg in topic to 6 cr max. Prereq: jr st

700 Introduction to Graduate Study in Mass Communication. 3 cr. G. History of research in mass communication and of the field's subdisciplines; current research trends. Prereq: admis to MA prog in Mass Comm or cons instr

701 Mass Communication Theory and Research Design. 3 cr. G. Principles for generating research questions and hypotheses; fundamentals of research design, including reliability, validity, generalizability, and interpretation. Prereq: admis to MA prog in Mass Comm or cons instr

805 Polls, Surveys, and Content Analysis. 3 cr. G. The design and interpretation of opinion polls, audience surveys, and analysis of the content of mass media. Prereq: grad st

810 Mass Media Market Research. 3 cr. G. The mass media's use of ratings, focus groups, and program tests in marketing to audiences. Prereq: grad st

815 Mass Media and Cultural Studies. 3 cr. G. Cross-disciplinary examination of mass communication as a cultural process; design and execution of a research project. Prereq: grad st

820 Public Relations Theory and Research. 3 cr. G. Critical survey of applied and scholarly research in public relations; development of original research for publication in scholarly or professional journals. Prereq: grad st

825 Mass Media and the Environment. 3 cr. G. Examination of the role of the mass media in shaping perceptions about nature, as well as their role in environmental policy conflicts. Prereq: grad st

830 Seminar in Mass Communication History. 3 cr. G. Research on the history of mass communication. Examination of

the dynamic social, economic and political settings for mass media. Prereq: grad st

835 Politics and the Mass Media. 3 cr. G. In-depth examination of the relationships between the mass media and politics in the united states, with a special focus on political campaigns. Prereq: grad st

840 Topics in Media Law and Ethics: (Subtitled). 3 cr. G. In-depth study and discussion of law and ethics as they relate to the mass media; development of original research for publication in scholarly journals. Retakable w/chg in topic to 6 cr max. Prereq: grad st

850 Global Media and Local Cultures. 3 cr. G. Seminar covering major theories and critiques of globalization, with a particular emphasis on the study of media and culture. Prereq: grad st

855 Digital Culture. 3 cr. G. Use of cybertheory and critical theory to examine the history, cultures, communities, and social issues surrounding the internet, gaming, and other new media forms. Prereq: grad st

860 Seminar in Mass Communication: (Subtitled). 3 cr. G. In-depth study and discussion of a current topic in mass communication. Specific topics announced in the Timetable. Retakable w/chg in topic to 6 cr max. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for grad students who must meet minimum cr load requirement. Fee assessed for 1 cr. Prereq: grad st

990 Research and Thesis. 1-6 cr. G. Production of a thesis under the supervision of the student's major professor with the consultation of the degree committee. Prereq: grad st; cons instr

991 Professional Project. 1-6 cr. G. Preparation and execution of a project which applies mass communication research and theory in a professional setting. Students enroll under major prof with consultation of degree committee. Prereq: grad st; cons instr

999 Graduate Independent Study. 1-3 cr. G. Supervised research of a particular topic area either not covered by other courses or at a level of sophistication beyond that of courses which cover the topic. Retakable to 6 cr max. Prereq: grad st; 3.00 grad gpa; writ cons grad dir

MATHEMATICS

College of Letters and Science

Degrees Conferred: MS, PhD in Mathematics
Phone: (414) 229-5110
FAX: (414) 229-4907
E-mail: mathinfo@math.uwm.edu
Web site: www.uwm.edu/Dept/Math

The Department of Mathematical Sciences offers graduate programs of study in mathematics with a choice of specializations in the fields of algebra, analysis, topology, applied mathematics including numerical analysis, probability and statistics, atmospheric science, or industrial mathematics.

The programs of study at the master's level are designed to suit both the student intending to continue toward a PhD as well as the student who wishes to begin a professional career upon completion of the master's program.

The student may prepare for a career in teaching at the secondary or college level and for a career in research in the academic, industrial, government, or business communities.

Graduate Faculty

PROFESSORS

Ancel, Fredric D., Ph.D., University of Wisconsin-Madison
Fan, Dashan, Ph.D., Washington University
Ghorai, Jugal, Ph.D., Purdue University
Guilbault, Craig R., Ph.D., University of Tennessee-Knoxville
Kahl, Jonathan, Ph.D., University of Michigan
Lee, Cheng-Ming, Ph.D., University of British Columbia-Vancouver
Milani, Albert J., Ph.D., University of Torino, Italy
Musson, Ian M., Ph.D., University of Warwick, England
O'Malley, Richard J., Ph.D., Purdue University
Roebber, Paul, Ph.D., McGill University
Schultz, David H., Ph.D., University of Wisconsin-Madison
Stockbridge, Richard, Ph.D., University of Wisconsin-Madison
Teply, Mark L., Ph.D., University of Nebraska
Tsonis, Anastasios, Ph.D., McGill University
Volkmer, Hans, Ph.D., University of Konstanz

ASSOCIATE PROFESSORS

Arnold, James E., Ph.D., University of Wisconsin-Madison
Beder, Jay, Ph.D., George Washington University
Bell, Allen D., Ph.D., University of Washington
Brucks, Karen, Ph.D., North Texas State University, Chair
Key, Eric, Ph.D., Cornell University
Lin, Tzu-Chu, Ph.D., University of Iowa
McLeod, Kevin, Ph.D., University of Minnesota
O'Bryan, Thomas E., Ph.D., Michigan State University
Solomon, Donald W., Ph.D., Wayne State University
Swanson, Kyle, Ph.D., University of Chicago
Wade, Bruce A., Ph.D., University of Wisconsin-Madison
Zou, Yi Ming, Ph.D., Indiana University

ASSISTANT PROFESSORS

Brazauskas, Vytaras, Ph.D., University of Texas-Dallas
Gervini, Daniel, Ph.D., University of Buenos Aires
Larson, Vincent, Ph.D., Massachusetts Institute of Technology
Lauko, Istvan, Ph.D., Texas Tech University
Okun, Boris, Ph.D., SUNY at Binghamton
Pinter, Gabriella, Ph.D., Texas Tech University
Willenbring, Jeb, Ph.D., University of California-San Diego
Xie, Dexuan, Ph.D., University of Houston
Zheng, Ziyu, D.M.A., Universite de Provence Aix-Marselle I

Master of Science in Mathematics

Four options for the masters's degree are offered: the standard mathematics/statistics option (A), the industrial mathematics option (B), the atmospheric sciences option (C), and the applied statistics option (D). Students who plan to continue for a Ph.D. degree with a focus on mathematics/statistics should elect the standard mathematics/statistics option; those who seek the Ph.D. with a focus on atmospheric sciences should elect the atmospheric sciences option.

A. Standard Mathematics/Statistics Option

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Completion of three semesters of undergraduate calculus.
- At least 18 credits of acceptable undergraduate preparation beyond calculus.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The entering graduate student is assigned a temporary advisor by the Department Graduate Program Coordinator.

Credits and Courses
Minimum degree requirement is 24 to 36 credits, depending upon which option the student chooses: either 24 credits from mathematics courses, at least 18 credits of which are numbered 700 or above; or 30 credits from mathematics courses, at least 12 credits of which are numbered 700 or above; or at least 36 credits in mathematics courses open for graduate credit.

Under the 30-credit option, up to 9 credits may be in approved courses from outside the Department. Under the 36 credit option, up to 12 credits may be taken in approved courses from outside the Department.

Thesis
A thesis is optional. A student choosing the thesis option must enroll in Math 790. A maximum of 3 credits of thesis may be counted toward the degree requirements. An acceptable thesis will represent an original contribution and may involve applications, a novel exposition, or computational aspects of a mathematical problem or theory. The student must pass an oral defense of the thesis.

Examination or Project
Each student who does not elect the thesis option must satisfy one of the following requirements:

- Pass a written comprehensive examination.
- Present a satisfactory oral and written report on a comprehensive project done under the supervision of a faculty advisor.

The project option is open only to students who complete the 36 credit graduation requirement. Students electing the project should register for 1 to 3 credits of the MS seminar 791. Students planning to continue for a PhD should select the written comprehensive examination option.

Time Limit
Under the 24 or 30 credit option, the student must complete all degree requirements within five years of initial enrollment. Under the 36 credit option, the student must complete all degree requirements within seven years of initial enrollment.

B. Industrial Mathematics Option

Objective
The objective of the master's program in industrial mathematics is to enable students to acquire the fundamentals of applied mathematics in areas of classical and numerical analysis, differential equations and dynamical systems, and probability and statistics. At the same time, the connection of these fields to modeling of physical, biological, and engineering phenomena will be stressed by requiring credits outside of the Department of Mathematical Sciences. Students are to obtain practical experience in mathematical modeling and analysis during an internship or industrial project that will culminate in a thesis.

Admission
An applicant must meet the Graduate School requirements as well as the following departmental requirements to be considered for admission to the program:

1. A bachelor's degree in an area of mathematical science (applied or pure mathematics, actuarial science, statistics, etc.), computer science, economics or finance, physics, engineering, or a related field.
2. Completion of at least three semesters of undergraduate calculus plus at least 6 credits of acceptable mathematics courses requiring calculus.
3. Knowledge of a high-level programming language.

Students satisfying only the minimum mathematics requirements will be expected to take courses that do not count toward the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies. The entering graduate student is assigned an advisor by the chair of the Industrial Mathematics Committee. Depending on the thesis topic, the student may later change advisors.

Graduation Requirements

General Requirements
A student must have completed, either prior to entering the program or by the time of graduation, courses in advanced calculus, numerical analysis, and ordinary differential equations. In addition, students must complete courses involving Fourier series, linear algebra, linear programming, mathematical modeling, partial differential equations, probability, and calculus-based statistics.

Credits and Course Work
At least 36 graduate credits in G or U/G courses at UWM are required, subject to the following regulations. A student must have:

1. At least 18 credits from the list of approved industrial mathematics courses, including Math 701, 715, and at least 6 additional credits at or above the 600 level.
2. At least 6 upper level (300 or above) credits of a coherent set of courses, approved by the advisor, in an application area (e.g., physics, engineering, business) outside of the Department. Students already proficient in an application area are expected to substitute mathematics courses.
3. Not more than 6 credits in any combination of independent study or seminar or thesis (Math 790, 791, 792, 799, or 990);
4. Not more than 12 credits below the 500 level from within the Department of Mathematical Sciences;
5. Demonstrated knowledge of an advanced scientific programming language approved by the Industrial Mathematics Committee; and
6. Advisor's prior written approval for every course.

Thesis
A thesis in which the student solves a mathematical problem with an industrial source is required. The student must work with the advisor/major professor from the start of the thesis through its completion, receiving his/her approval. The student must pass an oral defense before three faculty members.

Time Limit
Full-time students, without deficiencies, could be expected to complete the program in two years. All degree requirements must be completed within seven years of initial enrollment.

Special Recommendation
It is recommended that, by the time of graduation, students master the material presented in the following courses, either prior to enrolling or through course work: 313, 314, 564, 571, 601, 602, 701, 702, and 715. Students must work closely with their advisors to ensure satisfaction of the General, Course Work, and Thesis requirements for timely graduation.

Approved Industrial Mathematics Courses

Applied Mathematics

Math 307/308	Theoretical Mechanics
Math 320	Introduction to Differential Equations

Math 321	Vector Analysis
Math 322	Introduction to Partial Differential Equations
Math 371	Introduction to Stochastic Models in Finance
Math 405	Mathematical Models and Applications
Math 520	Non-Linear Differential Equations
Math 521/522	Advanced Calculus
Math 525	Introductory Theory of Differential Equations
Math 535	Linear Algebra
Math 581	Introduction to the Theory of Chaotic Dynamical Systems
Math 601/602	Advanced Engineering Mathematics I/II
Math 621/622	Introduction to Analysis
Math 623	Complex Analysis
Math 701/702	Industrial Mathematics I/II (title changes pending)
Math 703	Boundary Value Problems
Math 705	Mathematical Fluid Dynamics
Math 709	Differential Geometry
Math 716	Ordinary Differential Equations
Math 719	Partial Differential Equations
Math 726	Introduction to Functional Analysis
Math 727	Calculus of Variations
Math 728	Integral Equations
Math 801	Topics in Applied Mathematics: (Subtitle)
Math 816/817	Advanced Ordinary Differential Equations I/II
Math 819/820	Advanced Partial Differential Equations I/II
Math 827	Fourier Analysis

Numerical Analysis

Math 313	Linear Programming and Optimization
Math 314	Mathematical Programming and Optimization
Math 413	Introduction to Numerical Analysis
Math 414	Numerical Analysis
Math 416	Computational Linear Algebra
Math 715	Numerical Analysis
Math 793	Scientific Computational Laboratory: (Subtitle)
Math 813	Numerical Solution of Ordinary Differential Equations
Math 814	Numerical Solution of Partial Differential Equations
Math 815	Topics in Numerical Analysis: (Subtitle)

Probability and Statistics

MthStat 361/362	Introduction to Mathematical Statistics I/II
MthStat 461/462	Data Analysis and Graphing Using SAS-I/II
Math 471	Introduction to the Theory of Probability
MthStat 561	Analysis of Variance
MthStat 562	Design of Experiments
MthStat 563	Regression Analysis
MthStat 564	Time Series Analysis
MthStat 565	Nonparametric Statistics
MthStat 567	Statistical Methods in Reliability
MthStat 568	Multivariate Statistical Analysis
MthStat 569	Advanced Biostatistics
Math 571	Introduction to Probability Models
MthStat 761/762	Mathematical Statistics I/II
Math 768	Applied Stochastic Processes
MthStat 861/862	Decision Theory I/II
MthStat 863	Hypothesis Testing
MthStat 869	Advanced Topics in Mathematical Statistics

Classes in Biostatistics at the Medical College of Wisconsin

C. Atmospheric Sciences Option

Admission
An applicant must meet Graduate School requirements to be considered for admission to the program. Entering graduate students should have a general background in both mathematics and physics; given the intrinsic multi-disciplinary nature of the atmospheric sciences, no specific undergraduate course work is required. However, applicants should have an adequate mathematical background that includes calculus, vector analysis, ordinary and partial differential equations, and linear algebra. Students lacking this background may be admitted provided that the deficiencies amount to no more than two courses. Deficiencies must be made up within three enrolled semesters of graduate study.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. This advisor will be assigned upon enrollment in the program by the chair of the Atmospheric Sciences Committee.

Credits and Courses
The minimum degree requirement is 30 graduate credits, 12 of which must be in the atmospheric sciences 700 number sequence, 6 of which will be approved graduate elective credits, and 6 of which will be from either the mathematics sequences 521/522 or 601/602, or from two of the following courses: Math 703, Math 705, Math 801, and AtmSci 750.

Thesis
A thesis is optional. Students who choose the thesis option must enroll in Atm Sci 990 for the final 6 credits of the required total. An acceptable thesis will represent an original contribution to knowledge in the atmospheric sciences. Upon comple-

tion of the thesis, students must pass an oral examination to defend the thesis.

Comprehensive Examination
In the non-thesis option, students must pass a written comprehensive examination that tests basic knowledge of the atmospheric sciences.

Time Limit
Full-time students, without deficiencies, can be expected to complete the program within two years. All degree requirements must be completed within five years of initial enrollment.

D. Applied Statistics Option

The MS Option in Applied Statistics is designed for students who will seek employment as statisticians in non-academic settings after obtaining a MS degree. Students desiring to obtain a Ph.D. with a concentration in statistics should follow Option A: Standard Mathematics/Statistics Option.

Admission
An applicant must meet Graduate School requirements plus the following departmental requirements to be considered for admission to the program: completion of three semesters of undergraduate calculus and at least 18 credits of acceptable undergraduate preparation beyond calculus; these credits should include a one year sequence in mathematical statistics.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The entering graduate student is assigned a temporary advisor by the Department Graduate Program Coordinator.

Credit and Courses
The minimum requirement is 32 credits in Mathematics or Mathematical Statistics. All students must complete Math 535, 571, 621, and 622 and MthStat 462, 761, and 762. In addition, each student must complete 12 approved credits of applied statistics from UWM or the Medical College of Wisconsin.

Thesis Option
Students with grade point averages of 3.7 and no grades below B+ after their first 18 credits completed in the program will be eligible to write a thesis and earn 3 credits toward the degree. In addition, students who write a thesis are exempt from the Master's Proficiency exam.

Master's Proficiency Exam
Students who are not eligible for or who do not complete the thesis option are required to pass a written comprehensive examination.

Time Limit
Students must complete all degree requirements with 5 years of initial enrollment.

Doctor of Philosophy in Mathematics

Admission
Applicant must meet Graduate School requirements plus departmental requirements as given for admission to the master's program. A master's degree is not a prerequisite for admission to this PhD program.

Reapplication
A student who receives the master's degree must formally reapply for admission to the Graduate School before continuing studies toward the PhD.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The entering graduate student is assigned a temporary advisor by the Department Graduate Program Coordinator.

Course of Study
Minimum degree requirement is 54 graduate credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. The student, in consultation with the major professor, must select both a primary and a secondary area of specialization. The primary area may be chosen from one of the following seven fields with minimum credit requirements as shown. The secondary area may be chosen from another of these fields or may be chosen from another appropriate department. Minimum course requirements for all work in both areas of specialization require approximately two full years of study.

Algebra field. 12 credits in algebra; 3 in complex analysis; 3 in real analysis; 3 in topology; 3 in applied mathematics; 3 outside the field.

Analysis field. 3 credits in algebra; 6 in complex analysis; 6 in real analysis; 3 in topology; 3 in applied mathematics; 3 outside the field.

Applied mathematics field. 3 credits in algebra; 6 in complex analysis; 3 in real analysis; 12 in applied mathematics; 3 outside the field.

Probability and statistics. 3 credits in complex analysis; 6 in real analysis; 12 in probability and statistics; 3 in applied mathematics.

Topology field. 3 credits in algebra; 3 in complex analysis; 3 in real analysis; 12 in topology; 3 in applied mathematics; 3 outside the field.

Industrial mathematics field: 3 credits in algebra or topology; 3 in complex analysis; 3 in real analysis; 9 in applied mathematics; 6 in probability and statistics; 6 in approved credits outside the 600 and 601 curricular codes.

Atmospheric sciences field: 12 credits in atmospheric sciences (synoptic, dynamic, cloud/radiative, air pollution); 9 in applied mathematics or probability and statistics; 3 in analysis.

Foreign Language
Except for students in the atmospheric sciences field, each student must pass a written examination in one foreign language; the examination is administered by the Department's Language Committee. Acceptable languages are French, German, and Russian; exceptions may be permitted upon written request of advisor.

Computer Proficiency
The student shall pass an examination on a higher programming language and/or other appropriate advanced computer skills; the examinations administered by the Department's Computer Committee. The Computer Committee may accept advanced computer science course work in lieu of the examination.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examination
When the student is sufficiently prepared — normally when the student has earned 24 credits in specified areas above the 700 level — a doctoral preliminary examination to determine the student's knowledge and achievement is taken. For students in mathematics, the exam evaluates the student's general knowledge of mathematics, as well as the student's knowledge of the major area of concentration. Students in atmospheric sciences are examined in three areas: at least one from the 190 curricular area code and at least one from the 600/601 curricular area codes. Students must pass this examination to continue in the program. With permission of the examination committee, the student may repeat this examination once. If the student does not have a master's degree in mathematics before this examination, the committee will determine whether the student's performance is sufficient to qualify for the master's degree.

Doctoral Dissertation Proposal Hearing
After passing the language requirements and the doctoral preliminary examination, the student participates in a doctoral dissertation proposal hearing. At this hearing, the student is examined on the student's chosen area of research and a dissertation topic is approved.

Dissertation
The primary requirement for the PhD in mathematics is the candidate's completion, under the supervision of the Department advisor, of an original and significant mathematical investigation presented in the form of a dissertation. The investigation is to be in the field of algebra, analysis, applied mathematics, probability and statistics, topology, or atmospheric sciences. A dissertation for the industrial mathematics field must involve an industrial problem requiring a mathematical solution.

Dissertation Defense
The candidate must, as the final step toward the degree, present a colloquium based on the dissertation and must pass an oral examination in defense of the dissertation. If the candidate does not successfully defend a thesis within five years of admission to candidacy, the candidate may be required to take another doctoral preliminary examination and be readmitted to candidacy.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

Minor Area for Other PhD Majors

A doctoral student planning a physical science major other than mathematics may fulfill requirements for mathematics as the minor area of concentration by completing 12 credits of approved mathematics courses with a grade of B or better, at least 6 credits of which must be in courses 700 or above.

A doctoral student planning a non-physical science major may fulfill requirements for mathematics as the minor area of concentration by completing 12 credits with a grade of B or better in approved mathematics courses 300 or above.

For additional information on Graduate School Ph.D. requirements, see the Graduate Student and Faculty Handbook.

Courses

Mathematical Sciences (MATH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

305 Vectors and Matrices. 3 cr. U/G. Systems of linear equations and determinants, vector geometry and linear transformations in three dimensions, with emphasis on the development of computational tools. Not open for cr to students w/cr in Math 234(ER). Does not carry cr toward Math Sci major or grad cr in Math Sci. Prereq: jr st, math placement level B; or grad st

307 Theoretical Mechanics. 3 cr. U/G. Vector treatment of equilibrium of particles and rigid bodies; motion of a particle; application to practical and theoretical problems. Prereq: jr st, Math 233(P), & Math 234(P) or ElecEng 234(P); or grad st

311 Theory of Interest. 3 cr. U/G. Simple and compound interest, annuities, amortization schedules, sinking funds, bonds, miscellaneous topics. Designed to prepare students for interest theory portion of second examination of Society of Actuaries. Does not carry grad cr in Math Dept. Prereq: jr st, Math 211(P) or 232(P); or grad st

313 Linear Programming and Optimization. 3 cr. U/G. Primal and dual formulations of linear programming problems; simplex and related methods of solution; algorithms for transportation; optimization. Prereq: jr st; Math/ElecEng 234(P); or grad st

314 Mathematical Programming and Optimization. 3 cr. U/G. Introduction to operations research. Network analysis; integer programming; game theory; nonlinear programming; dynamic programming. Prereq: jr st; Math 313(P) or cons instr; or grad st

320 Introduction to Differential Equations. 3 cr. U/G. Elementary types and systems of differential equations, series solutions, numerical methods, Laplace transforms, selected applications. No grad cr in Math Sci. Prereq: jr st, Math 233(P) & Math 234(P) or ElecEng 234(P); or grad st

321 Vector Analysis. 3 cr. U/G. Topics selected from vector algebra; scalar and vector fields; line, surface, and volume integrals; theorems of Green, Gauss, and Stokes; vector differential calculus. Prereq: jr st, Math 233(P) & Math 234(P) or ElecEng 234(P); or grad st

322 Introduction to Partial Differential Equations. 3 cr. U/G. Partial differential equations of mathematical physics, boundary value problems in heat flow, vibrations, potentials, etc. Solved by Fourier series; Bessel functions and Legendre polynomials. Prereq: jr st; Math 320(P); or grad st

337 Introduction to Number Theory. 3 cr. U/G. Divisibility; primes; congruences; continued fractions; Pell's equation; Pythagorean triples; magic squares. Applies toward math major only in School of Education. Does not carry grad cr in math sciences. Prereq: jr st, Math 211(P) or math placement level A; or grad st

371 Introduction to Stochastic Models in Finance. 3 cr. U/G. Elementary modeling of financial instruments for students in mathematics, economics, business, etc. Statistical and stochastic tools leading to the Black-Scholes model. Real data parameter fitting. Prereq: jr st & one of the following pairs; Econ 413(431)(P) & 506(P), Bus Adm 210(P) & 350(P), Bus Adm 701(P) & 702(P), or Math 234(P) & MathStat 361(P), or cons instr; or grad st

405 Mathematical Models and Applications. 3 cr. U/G. Construction and mathematical models with applications to the social and life sciences. Models may involve Markov chains, linear programming, game theory, graph theory and growth processes. Prereq: jr st & either Math 234(P) or Math 205(P) & 211(P); or grad st

413 Introduction to Numerical Analysis. 3 cr. U/G. Finite difference calculus; summation calculus; roots of polynomials; polynomial approximations; numerical solution of differential and integral equations; numerical quadrature; selected topics in computer programming. Prereq: jr st, Math 233(C), & Math 234(C) or ElecEng 234(C); or grad st

414 Numerical Analysis. 3 cr. U/G. Systems of linear and nonlinear equations; eigenvalue and eigenvector problems; solution of ordinary and partial differential equations; initial and boundary value problems. Prereq: jr st & Math 413(P) or ElecEng 413(P); or grad st

416 Computational Linear Algebra. 3 cr. U/G. Linear transformations and matrices; direct solution of linear systems; errors, ill-conditioning, perturbed matrices; iterative refinements; least squares; Eigenvalues, Eigenvectors, inverse power and QR methods. Prereq: jr st & Math/ElecEng 234(P); or grad st

431 Modern Algebra with Applications. 3 cr. U/G. Groups, rings, fields, Boolean algebras with emphasis on their applications to computer science and other areas. Does not carry grad cr in math sci. Prereq: jr st & Math 232(P); or grad st

451 (effective 01/24/2005) Axiomatic Geometry. 3 cr. U/G. An axiomatic approach to Euclidean and non-Euclidean geometry (historic role of the parallel postulate and models). Dept permission necessary for grad cr in math sci. Prereq: jr st, Math 341(241)(P), & Math 232(C); or grad st

451 Axiomatic Geometry. 3 cr. U/G. An axiomatic approach to Euclidean and non-Euclidean geometry (historic role of the parallel postulate and models). Dept permission necessary for grad cr in math sci. Prereq: jr st & Math 232(C); or grad st

453 (effective 01/24/2005) Transformations in Geometry. 3 cr. U/G. Selected topics from vector geometry and geometric transformations such as the study of invariants and conics. Recom for secondary school teachers. Departmental permission necessary for grad cr in math sci. Prereq: jr st, Math 341(241)(P), & Math 232(C); or grad st

453 Transformations in Geometry. 3 cr. U/G. Selected topics from vector geometry and geometric transformations such as the study of invariants and conics. Recom for secondary school teachers. Departmental permission necessary for grad cr in math sci. Prereq: jr st & Math 232(C); or grad st

471 Introduction to the Theory of Probability. 3 cr. U/G. Probability in discrete & continuous sample spaces; combinatorial analysis; conditional probabilities; stochastic independence; LaPlace limit theorem; Poisson distribution; laws of large numbers. Applications to physics, statistics. Prereq: jr st & Math 233(P); or grad st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored programs before course work level, content and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

511 Symbolic Logic. 3 cr. U/G. First-order predicate calculus; formal properties of theoretical systems; chief results of modern mathematical logic; advanced topics such as completeness and computability. CompSci 511, Math 511 & Philos 511 are jointly offered; they count as repeats of one another. Prereq: jr st & either Philos 212(P) or 6 cr in math at the 300-level or above

520 Non-Linear Differential Equations. 3 cr. U/G. Two dimensional autonomous systems, fixed point theory, Lyapunov functions, limit cycles, normal forms, bifurcation theory. Introduction to higher dimensional systems, invariant manifolds, Poincare maps. Prereq: jr st, Math 320(P) or cons instr; or grad st

521 Advanced Calculus. 3 cr. U/G. Fundamental notions of sets and functions; limits, continuity; Riemann integral, improper integral; infinite series; uniform convergence; power series; improper integrals with a parameter. Prereq: jr st, Math 232(P), & 341(241)(P); or grad st. Math 233(R) & 234(R)

522 Advanced Calculus. 3 cr. U/G. Linear functions; differentiation of functions of several variables (implicit functions, Jacobians); change of variable in multiple integrals; integrals over curves, surfaces; Green, Gauss, Stokes theorems. Prereq: jr st, Math 233(P), 234(P) & 521(P); or grad st

525 Introductory Theory of Differential Equations. 3 cr. U/G. Basic course in the theory of ordinary differential equations. Existence and uniqueness theorems; series methods; Bessel and Legendre equations. Prereq: jr st & Math 521(P); or grad st

529 Structure of Real and Complex Numbers. 3 cr. U/G. Construction of the real and complex number systems; topology of the real line and the complex plane; sequences and series of complex numbers. Prereq: jr st & Math 341(241)(P); or grad st

535 Linear Algebra. 3 cr. U/G. Vector spaces; linear transformations and matrices; characteristic values and vectors; canonical forms; bilinear, quadratic, and Hermitian forms; selected applications. Prereq: jr st, Math 234(P) or 240(P), & Math 341(241)(P); or grad st

537 Number Theory. 3 cr. U/G. Number theoretic functions; distribution of primes; Diophantine approximation; partitions; additive number theory; quadratic reciprocity. Prereq: jr st, Math 232(P) & 341(241)(P); or grad st

551 Elementary Topology. 3 cr. U/G. General theory of point sets in Euclidean spaces, with emphasis on topology of two-dimensional and three-dimensional spaces; elementary notions of metric spaces; applications. Prereq: jr st & either Math 521(P) or 529(P); or grad st

553 Differential Geometry. 3 cr. U/G. The theory of curves and surfaces by differential methods. Prereq: jr st, Math 233(P), 234(P) & 341(241)(P); or grad st

555 Projective Geometry. 3 cr. U/G. Axiomatic and analytic methods; relation to affine geometry; coordinatization; conics; real projective plane; projective spaces. Prereq: jr st, Math 232(P) & 341(241)(P); or grad st

571 (472) Introduction to Probability Models. 3 cr. U/G. Probability review, Markov chains in discrete and continuous time. Random walks, branching processes, birth and death processes. Queuing theory. Applications to physical sciences, engineering, mathematics. Prereq: jr st, Math 233(P), Math 234(P) or ElecEng 234(P), & one college-level course in statistics or probability; or grad st

581 Introduction to the Theory of Chaotic Dynamical Systems. 3 cr. U/G. Iterated mappings, one parameter families, attracting and repelling periodic orbits, topological transitivity, Sarkovskii's theorem, chaos, bifurcation theory, period doubling route to chaos, horseshoe maps, attractors. Prereq: jr st & Math 521(P), 529(P) or 621(P), or cons instr; or grad st

601 Advanced Engineering Mathematics I. 3 cr. U/G. Sequences and series, elementary complex analysis; Fourier series; linear and nonlinear ordinary differential equations; matrix theory, elementary functional analysis; elementary solution of partial differential equations. Prereq: jr st; Math 234(P) or ElecEng 234(P); 3 cr Math at 300-level or above; or cons instr

602 Advanced Engineering Mathematics II. 3 cr. U/G. Continuation of Math 601. Partial differential equations, Fourier and Laplace transforms, convolutions, special functions, mathematical modeling. Prereq: jr st; Math 601(P)

621 Introduction to Analysis. 3 cr. U/G. Topology of Euclidean space; continuity; differentiation of real and vector-valued functions; Riemann-Stieltjes integration. Prereq: jr st, Math 233(P) 234(P), & 341(241)(P); or grad st

622 Introduction to Analysis. 3 cr. U/G. Continues Math 621. Sequences and series of functions; uniform convergence; power series; functions of several variables; inverse and implicit function theorems; differential forms; Stokes' theorem. Prereq: jr st & Math 621(P); or grad st

623 Complex Analysis. 3 cr. U/G. Complex numbers; definition and properties of analytic functions of a complex variable; conformal mapping; calculus of residues; applications to mathematics and physics. See also Math 713. Prereq: jr st & either Math 321(P) OR 521(P); or grad st

631 Modern Algebra. 3 cr. U/G. Group theory, including normal subgroups, quotients, permutation groups, Sylow's theorems, Abelian groups; field theory; linear algebra over general fields. Prereq: jr st, Math 531(P) or cons instr; or grad st

632 Modern Algebra. 3 cr. U/G. Continuation of Math 631. Ring theory, including ideals, quotient rings, Euclidean rings, polynomial rings, unique factorization; modules, including vector spaces, linear transformations, canonical forms; bilinear forms. Prereq: jr st & Math 631(P) or cons instr; or grad st

675 Topics in Modern Mathematics: (Subtitled). 3 cr. U/G. Instructor and student presentations of modern topics. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st, Math 233(P) & cons instr; or grad st

701 Industrial Mathematics I. 3 cr. G. Elementary functional analysis, wavelets, control theory. Use of mathematical software emphasized throughout. Prereq: grad st in nat sci discipline; Math 522(P) or 602(P) or 622(P)

702 Industrial Mathematics II. 3 cr. G. Optimal control theory, digital signal processing, image processing, linear programming, nonlinear optimations, artificial neural networks. Use of mathematical software emphasized throughout. Prereq: grad st in nat sci discipline; Math 701(P)

703 Boundary Value Problems. 3 cr. G. Analytic methods for PDE's in mathematical physics, emphasis on green's functions. Theory of distributions, fundamental solutions, generalized eigenfunction expansions, generalized fourier and laplace transforms. Prereq: grad st; Math 322(P) & 623(P)

705 Mathematical Fluid Dynamics. 3 cr. G. Cartesian tensor analysis; kinematics and dynamics of a fluid continuum; irrotational motion of a perfect fluid; selected advanced topics. Prereq: grad st; Math 308(P); 623(P) or 713(P)

709 Differential Geometry. 3 cr. G. The theory of curves, surfaces, and manifolds in modern terminology. Global results on closed surfaces, geodesics, differential forms and tensor calculus.introduction to riemanniam geometry. Prereq: grad st; Math 522(P) or 622(P)

711 Theory of Functions of a Real Variable. 3 cr. G. Equivalence relations; cardinal and ordinal numbers; topology of real line; cantor and borel sets; lebesgue measure on real line; baire and measurable functions; lebesgue integral. Prereq: grad st; Math 522(P) & 551(P); or Math 622(P)

712 Theory of Functions of a Real Variable. 3 cr. G. Lebesgue integration; modes of convergence; lp spaces; vitali covering and lebesgue density theorems; dini derivates; differentiation; fundamental theorem of the lebesgue integral calculus; fubini's theorem. Prereq: grad st; Math 711(P)

713 Theory of Functions of a Complex Variable. 3 cr. G. Complex numbers; linear transformations; elementary functions; conformal mapping; complex integration; infinite sequences; dirichlet problem; multivalued functions. Prereq: grad st; Math 522(P) or 621(P)

714 Theory of Functions of a Complex Variable. 3 cr. G. Continuation of Math 713. Prereq: grad st; Math 713(P)

715 Numerical Analysis. 3 cr. G. Interpolation and approximation; differentiation and quadrature; numerical solution of ordinary differential equations; solution of linear and nonlinear algebraic equations. Prereq: grad st; Math 413(P); Math 521(P) or 621(P)

716 Ordinary Differential Equations. 3 cr. G. Existence and uniqueness theorems for systems of ode; qualitative properties of solutions, including stability and asymptotic behavior; general theory of linear systems; sturm-liouville problems. Prereq: grad st; Math 522(P) or 622(P)

719 Partial Differential Equations. 3 cr. G. First and second order equations; characteristics, cauchy problem; classical solutions of linear elliptic, parabolic and

hyperbolic equations. Prereq: grad st; Math 522(P) or 622(P); math 320(P)

721 Abstract Measure and Integration. 3 cr. G. General theory of measures and integration; differentiation of set functions; relation to stochastic variables; atomic measures; haar measure and integral applications to probability theory. Prereq: grad st; Math 712(P)

723 Entire Functions. 3 cr. G. Representation theorems; zeros; order of growth; picard theorems; approximation by polynomials; generalization to meromorphic functions. Prereq: grad st; Math 623(P) or 713(P); cons instr

726 Introduction to Functional Analysis. 3 cr. G. Basic notions of functional analysis in hilbert space will be introduced. The concepts will be illustrated by applications to elementary differential and integral equation problems. Prereq: grad st; Math 522(P) or 622(P)

727 Calculus of Variations. 3 cr. G. Introductory course devoted to the classical theory and problems. Prereq: Math 522(P) or 622(P)

728 Integral Equations. 3 cr. G. Integral operators will be studied as operator equations between suitable banach spaces. Compact operators, fredholm theory, hilbert space theory, singular integral operators. Prereq: grad st; Math 522(P) or 622(P)

731 Abstract Algebra. 3 cr. G. Basic course which is prerequisite for all other 700-799 level courses in algebra; groups, rings, fields, galois theory, modules, and categories. Prereq: grad st; Math 632(P); cons instr

732 Abstract Algebra. 3 cr. G. Continuation of Math 731. Prereq: grad st; Math 731(P)

735 Theory of Groups. 3 cr. G. Topics selected from permutation groups; representations of groups and algebras; group algebras; group characters; extension problems; simple groups; solvable and nilpotent groups. Prereq: grad st; Math 732(P)

736 Theory of Rings and Modules. 3 cr. G. Noetherian and artinian rings and modules; primitive, prime and simple rings and ideals; radicals; localization; morita theory; construction and study of special classes of rings. Prereq: grad st; Math 732(P)

737 Theory of Rings and Modules. 3 cr. G. Continuation of Math 736. Prereq: grad st; Math 736(P) or cons instr

751 Introductory Topology. 3 cr. G. Fundamental properties and examples of topological spaces and continuous functions, including compactness, connectedness, metrizability, completeness, product and quotient spaces, homeomorphisms, embedding, extension, and euclidean spaces. Prereq: grad st; Math 522(P) or 621(P)

752 Introductory Topology. 3 cr. G. Continuation of Math 751. Prereq: grad st; Math 751(P)

753 Introduction to Algebraic Topology. 3 cr. G. Homology theory; complexes and simplicial homology theory; general homology theories; cohomology rings; applications to manifolds, fixed point theorems, etc. Prereq: grad st; Math 632(P); Math 551(P) or 751(P) or cons instr

754 Introduction to Algebraic Topology. 3 cr. G. Continuation of Math 753. Prereq: grad st; Math 753(P)

767 Statistical Methods for Engineers and Scientists. 3 cr. G. Elementary baysian decision theory; prior posterior and predictive distributions; posterior and preposterior analysis of two action decision problems; concept of likelihood functions for binomial, poisson, exponential and normal distributions; simple and multiple regression analysis; introduction to autoregressive models. Not open to students who have cr in ElecEng 767, which is identical to Math 767. Prereq: grad st; Math 362(P) or math 467(P)

768 Applied Stochastic Processes. 3 cr. G. Concepts in queueing theory; exponential channels; applications of markov chains to queueing problems; queue disciplines with priorities. Not open to students who have cr in ElecEng 768, which is identical to Math 768. Prereq: grad st; Math 361(P) or math 467(P)

771 Theory of Probability. 3 cr. G. Measure-theoretic foundations; limit-law theorems; weak and strong laws of large numbers; central limit problem; conditional expectations, martingales; stochastic processes. Prereq: grad st; Math 471(C) or 712(C)

775 Theory of Sets. 3 cr. G. Cardinal numbers, order types and ordinal numbers; well-ordering theorem; transfinite induction. Prereq: grad st; cons instr

776 Theory of Sets. 3 cr. G. Continuation of Math 775. The continuum hypothesis; borel sets; souslin sets. Prereq: grad st; Math 775(P)

781 Iterated Maps as Dynamical Systems. 3 cr. G. Periodic, recurrent and non-wandering points, kneading theory, unstable manifolds, unimodal mappings, turbulent and chaotic maps, symbolic dynamics, structural stability, topological conjugacy, topological dynamics. Prereq: grad st; Math 711(P) or cons instr

790 Master's Thesis. 1-3 cr. G. - Cr count toward masters degree only if student completes thesis option. Prereq: grad st; cons instr

791 Master's Seminar. 3 cr. G. - May not be taken for cr more than once. Prereq: grad st; cons instr

792 Industrial Internship. 1-3 cr. G. Students earn credits for serving in an industrial internship that involves work of an advanced mathematical nature. They must prepare a report based on the internship. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

793 Scientific Computational Laboratory: (Subtitled). 1-2 cr. G. - Retakable w/chg in topic to 6 cr max. Prereq: grad st; Math 715(C)

799 Seminar in Mathematics: (Subtitled). 1-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

801 Topics in Applied Mathematics: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

805 Special Functions. 3 cr. G. Special functions arising in mathematics, physics, and engineering; their series and integral representations; differential and other

functional equations; generating functions; orthogonality and other properties. Prereq: grad st; Math 713(P)

806 Integral Transforms and Their Applications. 3 cr. G. Laplace, Fourier, Hankel, and Mellin transforms, with applications to the differential equations of circuit analysis, elasticity, mechanical vibration, and heat flow. Prereq: grad st; Math 525(P); 623(P) or 713(P)

807 Group Theory and Its Applications to Physics. 3 cr. G. Representations of discrete and continuous groups, including rotation groups, unitary groups and crystal point and space groups. Symmetries of elementary particles. Molecular obitals, energy bands. Counts as a repeat of Physics 807. Prereq: grad st; Physics 532(P)

809 Topics in Differential Geometry: (Subtitled). 1-3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Topics may be selected from Riemannian geometry, minimal surfaces and surfaces of prescribed mean curvature, geometric partial differential equations, or related areas of geometry. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

813 Numerical Solution of Ordinary Differential Equations. 3 cr. G. Methods for initial value and boundary value problems; stiff equations, singular points and bifurcation. Prereq: grad st; Math 715(P)

814 Numercal Solution of Partial Differential Equations. 3 cr. G. Finite difference and finite element methods for linear elliptic, parabolic and hyperbolic equations; nonlinear equations. Prereq: grad st; Math 715(P)

815 Topics in Numerical Analysis: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 715(P)

816 Advanced Ordinary Differential Equations. 3 cr. G. Existence and uniqueness theorems; singularity of solutions; oscillation and comparison theorems; poincare-bendixon theory. Prereq: grad st; Math 716(P)

817 Advanced Ordinary Differential Equations II. 3 cr. G. Continuation of Math 816; dynamical systems, bifurcation theory, topological methods. Prereq: grad st; Math 816(P)

819 Advanced Partial Differential Equations. 3 cr. G. Theory of linear PDE's including; elliptic, parabolic and hyperbolic equations; weak solvability, regularity theorems. Fundamental solutions, asymptotic properties. Prereq: grad st; Math 719(P)

820 Advanced Partial Differential Equations, II. 3 cr. G. Continuation of Math 819; general theory of linear partial differential equations; stationary and evolution equations; pseudo-differential operators. Prereq: grad st; Math 819(P)

821 Advanced Topics in Real Analysis: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 712(P)

823 Advanced Topics in Complex Analysis: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 714(P)

825 Functional Analysis. 3 cr. G. Basic theorems of b-spaces and f-spaces including the closed graph; Hahn-Banach and Banach-Steinhaus theorems; Banach algebras; generalized functions; spectral theory. Prereq: grad st; Math 712(P)

826 Functional Analysis. 3 cr. G. Continuation of Math 825. Prereq: grad st; Math 825(P)

827 Fourier Analysis. 3 cr. G. Fourier coefficients; convergence of Fourier series and conjugate Fourier series; summability; functions of certain special classes; absolute convergence of trigonometric series; divergence; complex methods. Prereq: grad st; Math 712(P) & 713(P)

841 Advanced Topics in Algebra: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 732(P); cons instr

843 Homology. 3 cr. G. Modules; diagrams; categories; functors; complexes; cohomology; extensions; resolutions; injective and projective systems; graded modules; homological dimension; spectral sequences; derived functors. Prereq: grad st; Math 731(P)

844 Homology. 3 cr. G. Continuation of Math 843. Prereq: grad st; Math 843(P)

851 Advanced Topics in Topology: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 752(P); cons instr

873 Advanced Topics in Probability: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

881 Topics in Nonlinear Dynamics: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Math 711(P); cons instr

990 Reading and Research. 1-6 cr. G. To be arranged with your instructor and department chair. Retakable. Prereq: grad st

Mathematical Statistics (MTHSTAT)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

361 Introduction to Mathematical Statistics I. 3 cr. U/G. Probability spaces; discrete and continuous, univariate and multivariate distributions; moments; independence, random sampling, sampling distributions; normal and related distributions; point and interval estimation. Not recom for grad students in math, or students not planning to take MthStat 362. Prereq: jr st; Math 233(P)

362 (effective 01/24/2005) Introduction to Mathematical Statistics II. 3 cr. U/G. Testing statistical hypothesis; linear hypothesis; regression; analysis of variance and experimental designs; distribution-free methods; sequential methods. Not recom for grad students in math. Prereq: jr st; MthStat 361(P)

362 Introduction to Mathematical Statistics. 3 cr. U/G. Testing statistical hypothesis; linear hypothesis; regression; analysis of variance and experimental designs; distribution-free methods; sequential methods. Not recom for grad students in math. Prereq: jr st; MthStat 361(P)

462 Data Analysis and Graphing Using SAS-II. 2 cr. U/G. Continuation of MthStat 461. Procedures GLM, LIFEREG, LIFETEST, LOGISTIC, PROBIT and advanced GRAPHING. Offered second half of sem. U cr does not count toward math sci major. Prereq: jr st; MthStat 461(P) or cons instr

465 Introductory Mathematical Statistics for Social Sciences and Education. 3 cr. U/G. Probability distributions; parameter estimation and confidence intervals; hypothesis testing; applications. Not open for cr to students w/cr in MthStat 467, 362, or for grad cr in math. Not open for cr toward major in math except in School of Education. Prereq: jr st; Math 211(P) or 232(P)

467 Introductory Statistics for Physical Sciences and Engineering Students. 3 cr. U/G. Concepts of probability and statistics; probability distributions of engineering applications; sampling distributions; hypothesis testing, parameter estimation; experimental design; regression analysis. Not open for cr for Math majors or students with cr in MthStat 362 or 465. Ind Eng 467 & MthStat 467 are jointly offered & count as repeats of one another. Prereq: jr st; Math 233(P)

561 Analysis of Variance. 3 cr. U/G. Theory of the general linear hypothesis; least squares and estimation; confidence ellipsoids and tests under normal theory; analysis of covariance; random-effects model. Prereq: jr st; MthStat 362(P)

562 Design of Experiments. 3 cr. U/G. Latin squares; incomplete block designs; factorial experiments; confounding; partial confounding; split-plot experiments; fractional replication. Prereq: jr st; MthStat 362(P); Math 234(P) or 240(P)

563 Regression Analysis. 3 cr. U/G. Straight line, polynomial and multiple regression; multiple and partial correlation; testing hypotheses in regression; residual analysis. Prereq: jr st; MthStat 467(P) or 362(P)

564 Time Series Analysis. 3 cr. U/G. Autocorrelation; spectral density; linear models; forecasting; model identification and estimation. Prereq: jr st; MthStat 362(P)

565 Nonparametric Statistics. 3 cr. U/G. Sign, rank and permutation tests; tests of randomness and independence; methods for discrete data and zeroes and ties; power and efficiency of nonparametric tests. Prereq: jr st; MthStat 362(P)

567 Statistical Methods in Reliability. 3 cr. U/G. Analysis of failure data; point estimates and confidence intervals for reliability; testing reliability hypotheses; accelerated life testing. Prereq: jr st; MthStat 362(P) or 467(P)

568 Multivariate Statistical Analysis. 3 cr. U/G. Multivariate normal distribution; Wishart distribution; Hotelling's T2; multivariate normal distribution; multivariate analysis of variance; classification problems. Prereq: jr st; MthStat 362(P); Math 535(P)

569 Advanced Biostatistics. 3 cr. U/G. Survival distributions; life tables; design and analysis of clinical trials. Prereq: jr st; MthStat 362(P)

761 Mathematical Statistics. 3 cr. G. Probability and distribution theory; point and interval estimation; testing hypotheses; large sample inference; nonparametric inference; sequential analysis. Prereq: grad st; Math 522(C) or 622(C)

762 Mathematical Statistics. 3 cr. G. Continuation of MthStat 761. Prereq: grad st; MthStat 761(P)

861 Decision Theory. 3 cr. G. Game theory; minimax theorem; admissibility and complete class theorems; invariant statistical decision problems; test hypotheses; multiple decision problems; sequential decision theory; empirical bayes decision procedures. Prereq: grad st; MthStat 762(P)

862 Decision Theory. 3 cr. G. Continuation of MthStat 861. Prereq: grad st; MthStat 861(P)

863 Hypothesis Testing. 3 cr. G. Exponential families; uniformly most--powerful tests; least favorable priors; unbiased tests; invariant tests; applications to exponential families and the general linear hypothesis. Prereq: grad st; MthStat 762(P)

869 Advanced Topics in Mathematical Statistics: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; MthStat 762(P)

Atmospheric Sciences (ATM SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

320 Atmospheric Chemistry. 3 cr. U/G. Overview of atmospheric chemistry including atmospheric composition, gas-phase chemistry, photochemistry, kinetics, cloud and aerosol chemistry, air pollution chemistry. Prereq: Atm Sci 240(P); Chem 102(P)

330 Air-Pollution Meteorology. 3 cr. U/G. Pollutant sources and sinks, fundamental pollutant chemistry, monitoring techniques, averaging boundary layers and turbulence, diffusion theories, diffusion models, regional and global-scale pollution problems. Prereq: Atm Sci 240(P); Chem 102(P); stats course recom

350 Atmospheric Thermodynamics. 3 cr. U/G. Radiant energy, sensible heat, and atmospheric thermodynamics; the gas laws; hydrostatic and psychrometric equations; dry and moist convection; clouds and their physical and energy relations. Optional field exercise. Prereq: jr st; Physics 220(P); Math 232(P); Atm Sci 240(P)

351 Dynamic Meteorology I. 3 cr. U/G. The role of dynamics in atmospheric physics; equations of motion; symmetric circulation models; gravity waves; Rossby waves, quasi-geostrophy; introduction to

instability of atmospheric flows. Prereq: jr st; Atm Sci 240(P); Math 233(P)

352 Dynamic Meteorology II. 3 cr. U/G. Circulation, vorticity, potential vorticity; shallow water equations: Poincare, Kelvin, and Rossby waves, energy and enstrophy; quasi-geostrophy for a stratified atmosphere; barotropic and baroclinic instability. Prereq: jr st; Atm Sci 351(P); Math 234(P)

360 Synoptic Meteorology I. 4 cr. U/G. Fundamental principles; synoptic-scale structure and dynamics; equivalent barotropic model; vertical motions; introduction to and application of quasi-geostrophic theory. Prereq: jr st; Math 232(P); Physics 210(P); Atm Sci 240(P)

361 Synoptic Meteorology II. 4 cr. U/G. Extension of quasi-geostrophic theory to Q-vectors; isentropic potential voracity applied to mid-latitude weather systems; fronts and jets. Prereq: jr st; Atm Sci 360(P)

405 Atmospheric Science for in-Service Teachers: (Subtitled). 1-3 cr. U/G. Basic, advanced or new topics in atmospheric sciences for in-service teachers. Retakable w/chg in topic to 9 cr max. Prereq: in-service teacher; add'l prereqs depending on topic

414 Water Resources. 3 cr. U/G. Elements of the water budget; problems in planning, operation, and evaluation of control and utilization of water in selected drainage basins and hydrologic regions. Prereq: jr st; intro course in chem or physics & an intro course in a field science (such as botany, ecology, geog, geo sci, meteorology)

415 Hydrology. 3 cr. U/G. The role of water in geographic systems; hydrologic phenomena in interrelation with land form, climate, soil, vegetation, and cultural process in the geographic landscape. Prereq: jr st; Math 105; two courses in geog, meteorology or geo sci or bio sci

420 Interface Meteorology. 3 cr. U/G. Quantitative treatment of energetics and mass exchanges at the planetary/atmosphere interface. Prereq: jr st; Math 231(P), Physics 207(P) or 209(P), Atm Sci 100(P) or 240(P) or 350(P)

460 Mesoscale Circulations. 3 cr. U/G. Theory, analysis and forecasting of mesoscale flows, including convective systems, polar lows, terrain and surface-forced flows, jet streams and hurricanes. Prereq: jr st; Atm Sci 360(R) or cons instr

464 Cloud Physics. 3 cr. U/G. Formation of cloud droplets, droplet growth by condensation, formation of ice crystals, precipitation processes, weather radars, cloud models. Prereq: jr st; Physics 220(P); Math 232(P); Atm Sci 350(P)

465 Meteorological Instrumentation. 3 cr. U/G. An introduction to the measurement of basic meteorological parameters. General measurement fundamentals; physical fundamentals; measurement of temperature, pressure, wind speed, wind direction, humidity and radiation. 2 cr lec, 1 cr lab. Prereq: jr st; Atm Sci 240(C); Physics 220(C)

470 Tropical Meteorology. 3 cr. U/G. Dynamics and energetics of tropical circulations. Origins and evolution of equatorial disturbances and easterly waves. Structure and dynamics of tropical cyclones. Hurricane modeling and prediction. Prereq: Atm Sci 351(P) or 360(P)

480 The General Circulation and Climate Dynamics. 3 cr. U/G. Historical overview, the zonally symmetric circulation, momentum, heat and water budgets, stationary waves, the El Nino Southern oscillation, global warming, interpentadal variability in the North Atlantic. Prereq: jr st; Atm Sci 351(P)

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

500 Statistical Methods in Atmospheric Sciences. 3 cr. U/G. Mathematical and statistical tools applicable to the investigation of atmospheric problems; the nature and treatment of atmospheric data. Prereq: jr st; Atm Sci 240(P) or 350(P), & Math 231(P), 232(P) or cons instr

505 Micrometeorology. 3 cr. U/G. Surface energy budget; radiation balance and heat transfer; boundary-layer profiles of wind, temperature and moisture; turbulence and boundary-layer fluxes; evapotranspiration; special topics. Prereq: jr st; Atm Sci 351(P) & 330(P)

511 Seminar in Atmosopheric Radiation and Remote Sensing. 3 cr. U/G. Basic laws of radiation, absorption and scattering, weather radar, retrieval of soundings, remote sensing and climate, weather satellites. Satisfies L&S Seminar req. Prereq: jr st; Math 232(P); Atm Sci 350(P) & Physics 210(P)

520 Advanced Dynamic Meteorology. 3 cr. U/G. Properties of atmospheric sound, gravity, Rossby waves. Baroclinic instability, cyclogenesis, frontogenesis, and the general circulation. Introduction to numerical prediction. Prereq: jr st; Math 234(P), Atm Sci 350(P) & 351(P) or equiv

531 Numerical Weather Prediction. 3 cr. U/G. The application of numerical methods to weather analysis and forecasting. Study of operational forecast models. Design of research models. Prereq: Atm Sci 360(P) & CompSci 251(P)

690 (effective 01/24/2005) Seminar in Atmospheric Sciences: (Subtitled). 1-3 cr. U/G. Intensive topical studies of currently active problem areas. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; cons instr

690 Seminar in Atmospheric Sciences: (Subtitled). 1-3 cr. U/G. Intensive topical studies of currently active problem areas. Retakable w/chg in topic to 9 cr max. Satisfies L&S Seminar req. Prereq: jr st; cons instr

705 Air Pollution Modeling. 3 cr. G. Computational techniques for determining surface fluxes of heat and momentum. Numerical methods for solving advection and diffusion problems; statistical diffusion modeling. Prereq: grad st; cons instr

711 Cloud Dynamics. 3 cr. G. Atmospheric applications of turbulent flow theory. Nonprecipitating clouds: structure of individual cumulus clouds, stratocumulus and cumulus boundary layers. Precipitating clouds: thunderstorms, squall lines, hurricanes. Prereq: grad st; cons instr

725 Remote Sensing of the Environment. 3 cr. G. Remote sensing technology, data processing, and analysis in meteorology, with application to oceanography and geology. Radar and acoustic sounding. Erts, sms/goes, thermal scanner, conventional weather satellites. Prereq: grad st in Physics, Math, Geog, Geo Sci, Engr, or Atm Sci

750 Nonlinear Time Series Analysis. 3 cr. G. Phase space reconstruction; singular spectrum analysis; prediction; dimension estimation; application of nonlinear time series analysis techniques to selected data sets. Prereq: grad st; cons instr

751 Geophysical Fluid Dynamics. 3 cr. G. Waves and instabilities in the atmosphere and ocean; wave-mean flow interactions; geophysical turbulence; ageostrophic circulations. Prereq: grad st

760 Advanced Cloud, Aerosol & Precipitation Principles, Processes & Interactions. 4 cr. G. (3 hr lc, 2 hr la). Theoretical & experimental look at cloud & precipitation formation, interaction & dissipation microphysics & chemistry aerosol physics & chemistry, & their application. Prereq: grad st; Atm Sci 464(C) or cons instr

761 Advanced Synoptic/Mesoscale Meteorology. 3 cr. G. Advanced analysis techniques for snyoptic/mesoscale diagnoses, case studies of relevant circulation systems; role of planetary, synoptic, and mesoscale flows in system development. Prereq: grad st; cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

943 Seminar: Hydrology. (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st

950 Seminar on Topics in Atmospheric Sciences. 1-3 cr. G. Selected topics in atmospheric dynamics, satellite meteorology, atmospheric & oceanic convection, air & water pollution, numerical prediction remote sensing, & others. Prereq: grad st in physical sciences or engineering

990 Master's Thesis. 1-8 cr. G. - Prereq: grad st; cons instr & completed thesis proposal

997 Doctoral Externship. 1-12 cr. G. - Prereq: grad st; admis to candidacy for the PhD

998 Doctoral Dissertation. 1-12 cr. G. - Prereq: grad st; admis to candidacy for PhD

999 Advanced Independent Reading. 1-4 cr. G. Independent meteorological study. Retakable to 4 cr max. Prereq: grad st & cons instr

MULTIDISCIPLINARY COMMITTEE-DIRECTED Ph.D. PROGRAM

This option is designed to meet the needs of highly qualified and motivated doctoral students who have academic interests that cannot be met by a single, existing UWM doctoral program. Those who have been admitted to this program typically have identified a multidisciplinary research topic before applying to a UWM doctoral program. It is the applicant.s responsibility to identify members of the UWM graduate faculty who would provide the necessary expertise and guidance for developing the multidisciplinary program proposal, and to obtain confirmation from these faculty that they are willing to serve as committee members through the completion of the program.

Students in this program are subject to all general Graduate School requirements for doctoral programs, including, but not limited to, minimum credits, residency, time limit, preliminary examination, proposal hearing, committee membership, and the dissertation defense (see www.uwm.edu/Dept/Grad_Sch/Publications/HandBook/PhD/).

GUIDELINES

1. Prospective students who have an interest in a multidisciplinary Ph.D. degree program should apply to the UWM doctoral degree program that is most closely related to their major interest.

2. When an existing doctoral program receives an application from a student who is considering a multidisciplinary degree program, it will treat it as it would all other applications for admission; all normal admissions criteria will be invoked. Since there can be no assurance of an alternate degree route for the student at the time of admission, the doctoral program must assume full normal responsibility for any student it admits, including guidance toward the completion of its designated doctoral degree.

3. The application for the special committee degree must be submitted to the Dean of the Graduate School on behalf of the student by the proposed major professor, and with the approval of the major professor's doctoral program. All proposals for this degree program must meet minimum Ph.D. requirements of the Graduate School. The application should clearly state:

    - The reasons the special committee program is needed with an explanation of why the student's needs cannot be met within existing programs.
    - The exact title of the proposed degree.
    - The proposed course and seminar program envisaged.
    - Any tool requirements of the dissertation (language, etc.) and how these requirements will be met.
    - The nature and scope of preliminary examinations.
    - The nature of the dissertation (general subject area).
    - The names of the chairperson and (a minimum of) four other graduate faculty members who have agreed to serve on the committee.

4. The major professor must be an approved doctoral adviser of the program to which the student is originally admitted. In signing off on the application for the Multidisciplinary Committee- Directed Ph.D. the program agrees to retain and keep all the student's records.

5. Multidisciplinary degree program proposals must come to the Graduate School within one year after admission to the doctoral program (or before the student has completed 12 credits in courses in the doctoral program). They must come to the Graduate School in a timely fashion; that is, where there is still a substantial portion of the program ahead of the student.

6. All applications must be approved both by the Graduate Curriculum Committee (GCC) and the Dean of the Graduate School. In all cases the Graduate School and the GCC will review applications to determine whether the proposed multidisciplinary program can be carried out within an established department or program, utilizing major and minor requirements or other available mechanisms. The suitability and degree of commitment of the supervisory committee for the proposed program will be examined.

7. Students in multidisciplinary degree programs are eligible for all categories of financial aid. They may be assigned teaching assistantships in participating departments or research or project assistantships with appropriate faculty members. Nominations for Graduate School and Dissertation Fellowships, AOP and other awards may be made by the GCC. Limitations set by the Fellowship Committee on the number of nominations to be made by individual programs will apply to the GCC, for multidisciplinary students.

8. The Graduate School is vitally concerned about maintaining active participation by all members of special degree committees in the on-going Ph.D. programs of the students, and asks the individual members of the committees to assume all of the responsibilities which a department or program faculty provides in a conventional program.

MUSIC

Milton and Lillian Peck
School of the Arts

Degree Conferred: Master of Music
Phone: (414) 229-4393
FAX: (414) 229-2776
Web site: www.uwm.edu/SOA/Music/

The Department of Music offers a graduate program of study in music, preparing the student for a career in a performing area, music education, music history and literature, conducting, or theory and composition. The Master of Music program permits concentration in performance (voice or instrument), chamber music performance, conducting, music education, music history and literature, theory and composition, collaborative piano (vocal or instrumental), and string pedagogy. Students should consult the Department of Music for specific information regarding these concentrations.

MM/MLIS Coordinated Degree Program

In cooperation with the School of Information Studies, the Department of Music offers a MM/MLIS coordinated degree program to prepare students for positions as music librarians. Students in the program will concurrently pursue a Master of Music degree program (with a concentration in Music History and Literature) and a Master of Library and Information Science degree program. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree. For more detailed information on this program see Concentration in Music History and Literature later in this section and the Library and Information Science section of the Bulletin.

Graduate Faculty

PROFESSORS

Dvorak, Thomas, M.M., University of Wisconsin-Madison
Goodberg, Robert, M.A., Columbia University
Hansen, Sharon, D.M.A., University of Missouri-Kansas City
Jaimes, Judit, B. M., Curtis Institute of Music
Welstead, Jon, Ph.D., University of Iowa

ASSOCIATE PROFESSORS

Brauner, Mitchell, Ph.D., Brandeis University
Deutsch, Margery, M.M., State University of New York-Stony Brook
Emmons, Scott, Ph.D., Eastman School of Music, Chair
Errante, Valerie, D.M.A., Eastman School of Music
Heinrichs, William, Ph.D., University of Iowa
Kartman, Stefan, M.M., Northwestern University
Lavonis, William, D.M.A., University of Cincinnati
Peterson, Jeffrey, M.M., University of Illinois

ASSISTANT PROFESSORS

Burns, Christopher, Ph.D., Stanford University
Flint, Gregory, B.M., Northwestern University
Hartman, Kevin, M.M., Northwestern University
Peterson, Christopher, Ph.D., Florida State University
Rodger, Gillian, Ph.D., University of Pittsburgh
Smith, Marsha Kindall, M.A., Ohio State University
Zinck, Bernard, M.M., The Julliard School

Master of Music

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate music course background must include adequate preparation in music theory demonstrated through satisfactory completion of Music Theory, Levels I, II & III; Materials 127, 128, 226; Aural Skills 123, 124, 225; Keyboard Harmony 125, 126, 227; Form Analysis 230, Materials of 20th Century Music 421 - or equivalent courses.

- Preparation in music history and literature must be demonstrated through satisfactory completion of a two-semester survey course in development of music from earliest times to the present plus one semester of more specialized music history.

In addition to the application materials required by the Graduate School, those seeking admission to the Master of Music degree program must submit the following to the Director of Graduate Studies, Department of Music:

- A Graduate Music Application (available upon request from the Department of Music, 414-229-5162).

- A one-page resume of the applicant's performance experience and extracurricular activities.

- A one-page statement addressing the applicant's reasons for wishing to pursue a degree program at UWM, the applicant's career goals, and what he or she intends to do with a UWM degree.

- Three letters of recommendation.

In addition, auditions, entrance exams, other prerequisites, and portfolio reviews are required as follows:

Concentration in Instrumental or Vocal Performance, Chamber Music Performance, and Collaborative Piano
Applicant proposing concentration in Music Performance or Collaborative Piano must demonstrate outstanding performance skills.An on-site audition is required; in extreme cases, recorded examples of an applicant's performance may be accepted in lieu of an in-person audition. Applicant should contact faculty in the appropriate performance area to inquire about specific audition repertoire and procedures.

Applicant proposing voice studies must demonstrate undergraduate study or other proficiency in two foreign languages. A voice diagnostic exam will begiven at the audition in the areas of diction, literature, pedagogy and related vocal subjects to determine proficiency.

Concentration in Choral or Instrumental Conducting and MM in

Music Education-Conducting Emphasis
Applicant should contact choral, wind ensemble/band, or orchestral faculty to inquire about specific audition and entrance exam procedures.

Concentration in Music Composition
Applicant should preferably have experience in computer notation and MIDI applications.

Applicant must submit portfolio of original compositions, which could include tapes and/or computer MIDI programs, in addition to at least one excerpt or complete composition in conventional notated form.

Concentration in Music Education
Applicant must have an undergraduate degree in music education with certification and teaching experience, except by special permission.

Applicant should contact faculty in the Music Education area to inquire about other entrance requirements.

An audition is required only if the applicant plans to take performance lessons.

Concentration in Music History and Literature
Applicant must have a reading knowledge of a language other than English, preferably German.

Applicant must submit two examples of written work (essays, research papers).

Concentration in String Pedagogy
Applicant should contact faculty in the appropriate string and String Pedagogy areas to inquire about audition and additional entrance requirements.

While prospective students are not required to submit Graduate Record Examination scores, they are strongly advised to take these tests before or early in their graduate work if they wish to be considered for a UWM Graduate School Fellowship or if they plan to continue their graduate work after completing a master's degree at UWM.

Diagnostic examinations in both music history and music theory are required of all entering and transferring graduate students before their first semester of study at UWM. Exceptions will be granted in extenuating circumstances. In no case will students be allowed to proceed beyond the first year of graduate study without having taken the diagnostic exams. These examinations assist the faculty in determining whether the student may proceed with required graduate courses, or whether they first need to remove deficiencies.

Applicants exhibiting deficiencies in music history will be required to enroll in Graduate Music History (Music 704), and those exhibiting deficiencies in music theory will be required to enroll in Graduate Theory Foundations (Music 703); these courses must be passed with a minimum grade of "B" or better. Additionally, other areas of deficiency may require further review. Graduate Music History may count toward the degree as an elective. Credits earned in making up deficiencies in music theory do not count toward the degree. The following courses are recommended to fulfill the graduate theory elective requirement: Music 680, 731, 744.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Director of Graduate Studies.

Concentration in Chamber Music Performance

This concentration is designed for the instrumentalist who is admitted by audition to the Institute of Chamber Music at UW-Milwaukee. The major focus of the Institute of Chamber Music is to provide professional training experiences in the performance of chamber repertoire through well-matched chamber ensembles from duos through large chamber ensembles. The student who successfully completes 24 specified credits and the recital requirement receives a Performer's Certificate from the Institute; the student who successfully completes 33 specified credits and the other degree requirements receives a Master of Music with a concentration in Chamber Music Performance.

Credits and Courses
Minimum certificate requirement is 24 credits; minimum master's degree requirement is 33 credits. Each student follows an integrated curriculum in which all subjects are related and no course is optional.

Specific Required Courses- 21 cr.
Music 710 Graduate Studies in Music, 3 cr. *
Music 711 Graduate Seminar in Music History, 3 cr. *
Music xxx Graduate theory elective, 3 cr. *
Music 806 Chamber Music Master Class, 4 cr.
Music 835 Chamber Music Coaching, 8 cr.
Group Recital Requirement (met at end of program)

Instrumental Master Class MusPerf 855
4 cr. (1cr. each for 4 semesters)

Performance (Instrument Lessons) MusPerf 8xx
8 cr. (2cr. each for 4 semesters)
*Not required in Performer's Certificate.

Students in the Institute of Chamber Music are admitted for a two-year program of study. Students are either part of an existing chamber group before entrance or, when admitted, assigned to a group. If the first-year group does not continue for a second year, the student must re-audition for membership in a new or reconstituted group that is acceptable to the faculty in order to continue for a second year of study.

At the end of the first year, each student's performance is judged by the Director of the Institute in consultation with the members of the ICM advisory committee. If a student does not meet the required performance level, the student is prevented from continuing in the Institute for a second year. The student may, if acceptable to the Department graduate faculty, choose to follow another graduate program in the Department.

Thesis Recital
The recital should be given no sooner than the final semester of coursework. The student ensemble must present a program which has been approved by the Graduate Committee and by the Director of the Institute of Chamber Music. This

requirement applies both to candidates for the MM in Chamber Music Performance and to the student working toward the Performer's Certificate.

Comprehensive Examination
Comprehensive examinations in both music history and music theory will be required of each student in the MM in Chamber Music Performance concentration. This requirement normally follows successful completion of a recital requirement. Comprehensives are not required of students seeking the Performer's Certificate.

Time Limit
The student must complete all degree or certificate requirements within four years of initial enrollment.

Concentration in Collaborative Piano (Vocal or Instrumental)

This concentration is designed for the music student with an undergraduate degree in piano who wishes to specialize as a collaborative pianist in either the vocal or instrumental repertoire. A student must successfully pass an audition that demonstrates an advanced level of collaborative skill to qualify for admission to the program.

Credits and Courses
Minimum degree requirement is 32 graduate credits, 28 of which must be in specified music areas, 2 of which must be in another music area, and 2 of which may be in one of the other areas or in a related field.

Specific Required Courses - 12 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
Music 990 Research of Thesis (Recital), 3 cr.
Performance Credits
Vocal
MusPerf 703 Collaborative Piano - Vocal, 8 cr. (2 cr. each for 4 semesters)
MusPerf 705 Techniques of Opera Coaching and Accompanying, 4 cr. (1 cr. each for 4 semesters)
Instrumental
MusPerf 704 Collaborative Piano - Instrumental, 8 cr. (2 cr. each for 4 semesters)
MusPerf 706 Sonatas - Piano and String, 4 cr. (1 cr. each for 4 semesters)
Repertoire
Vocal
Music 753 Advanced Song Literature I, 2 cr.
Music 754 Advanced Song Literature II, 2 cr.
Instrumental
Music 755 Advanced Instrumental Performance Repertoire: Strings, 2 cr.
Music 757 Advanced Instrumental Performance Repertoire: Brass and Woodwinds, 2 cr.
Electives in Music - 2 cr.

General Electives - 2 cr.

The program must also include 3 credits in Music 314 (Music of the 20th Century), if not previously completed.

For Vocal Collaborative majors: proficiency in French, German, and Italian diction is determined through a reading of song and aria texts for collaborative and voice faculties. Students whose diction skills are deficient are required to enroll in the appropriate course without degree credit. Completion of the course with a grade of B or better satisfies the deficiency.

Recital
The recital should be given no sooner than the final semester of coursework. The student must present a collaborative recital including a performance of a twentieth-century composition by an American composer. The proposed program must be approved by the Graduate Committee of the Department of Music, and the student must present a satisfactory recital audition before the recital may be scheduled.

Comprehensive Examination
The student must pass final comprehensive examinations in both music history and music theory. This requirement normally follows successful completion of the recital requirement.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Concentration in Conducting (Choral or Instrumental)

This concentration is designed primarily for the student with an undergraduate degree in music education or performance who wishes to pursue advanced training in conducting plus related studies in music performance and allied areas. A student must successfully pass an audition which demonstrates an advanced level of conducting skill to qualify for admission to the program. Students may also have to pass other audition(s) in performance area(s), depending on their focus.

Credits and Courses
Minimum degree requirement is 31 graduate credits, 29 of which must be in specified music areas, 2 of which may be in one of the other areas or in a related field.

Specific Required Courses - 15 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
Music 732 Score Reading, 3 cr.
Music 990 Research of Thesis (Public Performance), 3 cr.

Conducting - 6 cr.
Music 553 Advanced Conducting I, 2 cr.
Music 554 Advanced Conducting II, 2 cr.
Music 771 Advanced Conducting III, 2 cr.

Literature - 3 cr. (Select ONE)
Music 559 The Wind Band: Its History and Literature, 3 cr.
Music 615 Choral Literature, 3 cr.
Music 799 Advanced Independent Work (Orchestral Literature), 3 cr.

*Performance - 2 cr. **
MusPerf xxx Private Lessons, 1 cr.
MusPerf xxx Private Lessons, 1 cr.

*Ensemble - 3 cr. ***
Music xxx Ensemble, 1 cr.
Music xxx Ensemble, 1 cr.
Music xxx Ensemble, 1 cr.

General Electives - 2 cr.

The program must also include Music 314 (Music of the 20th Century), if not previously completed.
Voice and Voice Pedagogy required for MM Choral emphasis.

**Ensemble will be assigned upon audition.

Thesis (Public Performance)
The student must present a recital demonstrating conducting abilities. Performance of literature from a variety of style periods, including a twentieth-century composition by an American composer, should be included. The proposed program must be approved by the Graduate Committee before the recital may be scheduled. Candidates must also prepare a written document, following all procedures as dictated by the Graduate Committee, in consultation with their main advisor. (The student should consult with the primary faculty advisor for individual area guidelines.)

Comprehensive Examination
The student must pass final comprehensive examinations in both music history and music theory. This requirement normally follows successful completion of the thesis requirement.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Concentration in Music Composition

This concentration is designed for the person possessing creative talent in acquiring and utilizing the techniques and craft of musical composition.

Admission
An applicant who meets Graduate School requirements and has a bachelor's degree from an accredited institution may be considered for admission. A student must submit evidence of advanced compositional skills (scores, tapes, computer generated notation and/or MIDI materials) to qualify for admission to this program. Applicant should possess keyboard proficiency of a level permitting the candidate to sight-read music of moderate difficulty and performance capability of compositions at the level of an early Beethoven sonata or Bach's Two-part Inventions.

Credits and Courses
Minimum degree requirement is 32 graduate credits, including:

Specific Required Courses - 18 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music 731 Twentieth-Century Theories, 3 cr.
Music 744 Graduate Theory Seminar, 3 cr.
Music 327 Analog and Digital Synthesis I, 3 cr.
or
Music 328 Digital Synthesis and Systems II, 3 cr.
or
Music 420 Advanced Computing and Music, 3 cr.
Music 990 Research of Thesis, 3 cr.

Composition Requirement - 8 cr.
MusPerf 761 Advanced Composition. (2 cr. each for 4 semesters)

Electives in Music Theory - 6 cr.
Recommended Electives include: Music 327, 328, 420, 421, 680

Electives in Music - 3 cr.
Electives must be chosen in accordance with the needs of the individual candidate and with the advice and consent of the advisor or major professor.

Thesis
The candidate for the Master of Music in Composition degree must complete two compositions. One must be for large ensemble (orchestra, wind symphony, or choir), with or without electronic component. The other may be for electronic medium alone, or for chamber group or large ensemble, with or without electronic component.

Comprehensive Examination
The student must pass final comprehensive examinations in both music history and music theory.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Concentration in Music Education

This concentration is designed for students and teachers who wish to advance their knowledge and skills in both music and music pedagogy.

Admission
The same requirements apply as those stated under Master of Music except that the audition is only required if the student plans to take performance lessons at the 600 level. Applicants should have an undergraduate degree in music education with certification and teaching experience except by special permission.

Credits and Courses
Minimum degree requirement is 30 graduate credits.

Specific Required Courses - 18-21 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
MusEd 777 Foundations of Music Education, 3 cr.
MusEd 778 Recent Developments in Music Education, 3 cr.
MusEd 990 Research of Thesis (Thesis or Project), 3-6 cr.

Electives in Music Education - 4-7 cr.

Electives in Performance, Conducting, Theory, Music History, or related areas - 5 cr.

Thesis or Final Project
A formal written thesis, lecture/recital, composition with pedagogical intent and analysis, major annotated bibliography, curriculum synthesis, or other type of music education project is required. The student must submit a written proposal to the major advisor to be approved by the Graduate Committee prior to registration. Credit will be assigned according to the nature of the project.

Examination in the Major
The student must pass a final written examination in music and music education. This exam will reflect the nature of the student's program of studies. Further questions concerning the exam should be directed toward the student's major advisor.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Concentration in Music History and Literature

This concentration is designed primarily for students who wish to do advanced study in music history and literature. For some students, the degree is a terminal degree (for example, music teachers who may wish to pursue graduate work in music history rather than in music education), while for others it serves as preparation for the study of musicology at the doctoral level.

The concentration in the MM/MLIS coordinated degree program is designed to prepare students for positions as music librarians. For students interested in this program, all requirements and standards of the Music History and Literature concentration are exactly as described in the following description with the single exception that the 3-credit general elective requirement is replaced by a requirement of 30 credits taken in courses approved by the School of Information Studies as fulfilling requirements for the MM/MLIS program.

Credits and Courses
Minimum degree requirement is 30 graduate credits, 27 of which must be in specified music areas, 3 of which may be in one of the other areas or in a related field.

Specific Required Courses - 20 cr.
Music 450 Introduction to Musicology, 3 cr.
Music 452 Collegium Musicum, 2 cr. (1 cr. each for two semesters)
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
Music 911 Seminar in Musicology, 3 cr.
Music 990 Thesis, 3 cr.

Electives in Music History - 3 cr.

Electives in Other Areas of Music - 4 cr.

General Electives (UG or G)
3 credits (or 30 credits in Library Science if MM/MLIS major)

The program must also include Music 314 (Music of the 20th Century), if not previously completed.

Reading knowledge of German, French or Italian (see below for specific details).

Language Requirement
Candidates for the Master of Music degree with a concentration in Music History and Literature must demonstrate a reading knowledge of German, French, or Italian. The examiner, a member of the music history faculty, will choose several paragraphs totaling approximately 500 words taken from a suitable book or periodical article approved by the advisor, and dealing with a musical topic, and ask for a written translation. The candidate may use a dictionary. The results of the test will be communicated by the examiner to the Music History and Literature area Chair. Candidates failing the exam the first time may take it a second time, provided an appropriate interval has elapsed.

Thesis
The student must submit an acceptable thesis or thesis equivalent, which must be read and approved by both the student's thesis advisor and a second reader belonging to the Graduate Faculty. Appropriate thesis equivalents may be:

1. Two revised or expanded seminar papers totaling between 30 and 40 pages of text; or

2. One revised or expanded seminar paper, plus one of the following:
   a. a comprehensive review essay of an edition or major musical monograph.
   b. a concentrated study of the life and work of a musician or musical scholar.

Comprehensive Examination
The student must pass final written comprehensive examinations in both music history and music theory.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Concentration in Performance (Voice or Instrument)

This concentration is designed for the music student who wishes to concentrate primarily on the major performing skill. The student may specialize in either voice or instrument (piano, woodwind, brass, percussion, strings). A student must successfully pass an audition at an advanced level of performance to qualify for admission to the program.

Credits and Courses
Minimum degree requirement is 30 graduate credits, 28 of which must be in specified music areas, 2 of which may be in one of the other areas or in a related field.

Specific Required Courses - 12 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
Music 990 Recital, 3 cr.

Performance Credits (664-7xx)
10 credits

Advanced Performance Repertoire (4 cr. total)
Strings: 2 cr. in Music 755; 2 cr. in Music 782
Wind, Brass, Percussion: 2 cr. in Music 757 or 763; 2 cr. in Music 758, 782, 788, or 789
Voice: 2 cr. in Music 753; 2 cr. in Music 457, 458, 795, 796, or 798
Keyboard: 2 cr. in Music 751; 2 cr. in Music 752

Music Electives (U/G or G)
2 credits

General Electives (U/G or G)
2 credits

The program must also include 3 credits in Music 314 (Music of the 20th Century), if not previously completed.

Recital
The recital should be given no sooner than the final semester of coursework. The student must present a recital including a performance of a twentieth-century composition by an American composer. The proposed program must be approved by the Graduate Committee, and the student must present a satisfactory recital audition before the recital may be scheduled.

Comprehensive Examination
The student must pass final comprehensive examinations in both music history and music theory. This requirement normally follows successful completion of the recital requirement.

Ensemble Participation
The student of violin, viola, violoncello, or contrabass is required to participate in Symphony Orchestra each semester in which the student is registered for music performance in the major instrument. Two of these semesters (2 credits) fulfill the Orchestra requirement for the degree. A maximum of 2 additional semesters (2 credits) of Orchestra may be applied toward the master's degree. All other students, vocal as well as instrumental (except those with a keyboard concentration), are required to be enrolled in an approved performing organization each semester in which the student is registered for music performance instruction in the major instrument.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Concentration in String Pedagogy

This concentration is designed for the music student who wishes to concentrate primarily on the pedagogy of his/her major performing string instrument. A student must successfully pass an audition at a satisfactory level of performance for admission to the program.

Credits and Courses
Minimum degree requirement is 34 graduate credits, all of which must be in specified music areas.

Specific Required Courses - 10 cr.
Music 710 Graduate Studies in Music, 3 cr.
Music 711 Graduate Seminar in Music History, 3 cr.
Music xxx Graduate theory elective, 3 cr.
Music 991 Recital and Lecture Demonstration, 1 cr.

Performance - 16 cr.
MusPerf 541 or 542 or 543 Master Class in String Instruments, 2 cr. (1 cr. each for 2 semesters)
MusPerf 7xx String Instruments Violin/Viola/Cello, 8 cr. (2 cr. each for 4 semesters)
Music 782 Symphony Orchestra, 2 cr. (1 cr. each for 2 semesters)
Music 755 Advanced Instrumental Performance Repertoire I: Strings, 2 cr.
Music 756 Advanced Instrumental Performance Repertoire II: Strings, 2 cr.

Pedagogy - 8 cr.
Music 718 or 722 Violin/Viola/Cello Pedagogy Level I, 2 cr.
Music 719 or 723 Violin/Viola/Cello Pedagogy Level II, 2 cr.
Music 720 or 721 or 724 Violin/Viola/Cello Pedagogy Level III, 2 cr.
Music 829 Seminar: Historical Perspectives on Violin, Viola, and Cello Pedagogy, 2 cr.

Recital and Lecture Demonstration
The recital and lecture demonstration may be given at any time before the completion of the degree program. The recital consists of two parts: (a) a performance of a minimum of 30-45 minutes of music that has been approved by the major teacher; and (b) a lecture totaling approximately 30 minutes to be given before, during, or after the recital, in which the candidate discusses one or more pieces to be performed on the recital program, with emphasis on pedagogical values of the piece(s), the difficulties, and how they are overcome.

Comprehensive Examination
The student must pass final comprehensive examinations in both music history and music theory. This requirement normally follows successful completion of the recital requirement.

Ensemble Participation
The student is required to participate in an approved performing organization each semester in which the student is registered for music performance instruction in the major instrument; in two of these semesters the student must be enrolled in Symphony Orchestra for credit (see Performance Credits above).

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Performer's Certificate in Opera and Vocal Arts

The Performer's Certificate in Opera and Vocal Arts is designed for pre-professional/post-baccalaureate singers who, because of the natural size of their vocal instrument, their intelligence, stage savvy, maturity, professional focus, and significant prior experience in the art form of opera at the collegiate level, have the prerequisites necessary for aspiring to an operatic career.

Admission
Students must submit an application to both the Graduate School and the Department of Music, as well as three letters of recommendation (two of which should be from professionals in the field), and a detailed written statement of their career goals and intent. Applicants for the certificate program must hold a bachelor's degree. In addition, applicants must complete an audition that will consist of the presentation of five diverse opera arias, which may include musical theater repertoire, with appropriate staging. Adjudicators will include UWM voice faculty and operatic professionals outside of the university.

Credits and Courses
Minimum certificate requirement is 24 credits. Each student follows the curriculum described below. No course is optional.

Specific Required Courses - 24 cr

MusPerf 711	Voice (3 crs. each for 3 semesters), 9 cr.
MusPerf 511	Master Class in Voice, 1 cr.
Music 446	Vocal Pedagogy, 1 cr.
Music 458	Opera Apprenticeship (2 crs. each for 4 semesters), 8 cr. (Includes acting, dance, and music administration in conjunction with an approved local arts organization)
Music 753	Advanced Song Literature I, 2 cr.
Music 990	Recital, 3 cr.

Language Requirement
Candidates for the Performer's Certificate in Opera and Vocal Arts must demonstrate a musical performance proficiency in Italian, German, and French. If a student demonstrates deficiencies in any of these areas, the student will, through independent study, address these deficiencies through an approved program of study.

Performance Requirement
Performance of a major role with either the UWM Opera Theater or one of the

local professional opera company partners is required.

Recital
The student must present a recital including vocal compositions in at least three languages, one of which may be an operatic selection. The program must be approved by the Certificate Program Committee, and the student will be required to produce complete program notes, texts, and translations for all pieces on the recital program. The recital must be presented at UWM and at one off-campus, public venue.

Transfer of Credits — Master of Music to Performer's Certificate
The program does not allow transfer of credits from other institutions. However, students who have already completed coursework in vocal performance at the graduate level at UWM may transfer up to 14 credits from the UWM Master of Music degree program into the Performer's Certificate program. Courses which may transfer into the Performer's Certificate Program include: Voice, up to 9 credits; Song Literature, up to 2 credits; Vocal Pedagogy, up to 1 credit; and Opera Apprenticeship, up to 2 credits.

Transfer of Credits — Performer's Certificate to Master of Music
Upon completion of the Performer's Certificate, students may opt to pursue a Master of Music degree in vocal performance, but this may not be done concurrently with the certificate program. A separate application for the M.M. is required. Students complete the M.M. degree by adding the necessary academic coursework (Music 710 Graduate Studies in Music, Music 711 Graduate Seminar in Music History, Music xxx, graduate theory elective) and by successful completion of the graduate final comprehensive examinations in music history and music theory. Students who enroll in voice lessons as part of the M.M. are required to participate in one of the advanced vocal ensembles.

Time Limit
The program is designed to be a two-year program. However, students may, upon approval of the Program Committee, opt to take a third year. Students may also take, upon approval of the Program Committee, a leave of absence of up to one year in the course of the program.

Courses

Music (MUSIC)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

308 Selected Topics in Music History and Literature: (Subtitled). 3 cr. U/G. An in-depth study of selected genres in western music, the composers and their works. Topic to be announced in schedule of classes. May be retaken with change of topic to max of 9 cr. Prereq: jr st; Music 211(P), 212(P), 307(P); 4 semesters of music theory

309 American Folk and Popular Music. 2 cr. U/G. A survey of American folk and popular music from 1750 to the present. Study of european and african music elements and their intersection in american musical forms. Prereq: jr st or cons instr

310 Introduction to World Musics. 2 cr. U/G. Study of musical style in relation to cultural patterns among non-european peoples. Prereq: jr st or cons instr

311 Music of the Baroque Era. 3 cr. U/G. A survey of music from the baroque era in which selected composers and their compositions will be studied. Prereq: jr st; Music 211, 212, 307; 4 sem of music theory

312 Music of the Classic Era. 3 cr. U/G. A survey of music from the classical era in which selected composers and their compositions will be studied. Prereq: jr st; Music 211, 212, 307; 4 sem of music theory

313 Music of the Romantic Era. 3 cr. U/G. A survey of the romantic era in which selected composers and their compositions will be studied. Prereq: jr st, Music 211, 212, 307; 4 sem music theory

314 Music of the 20th Century. 3 cr. U/G. A survey of music in the 20th century, in which selected composers and their compositions will be studied. Prereq: jr st; Music 211, 212, 307; 4 sem music theory

326 Advanced Aural Theory. 3 cr. U/G. Continuation of Aural Theory 226 with advanced work in the development of aural skills and dictation in linear and vertical aspects of diatonic, chromatic and atonal music. Prereq: jr st; Music 225 & 226

327 Analog and Digital Synthesis I. 3 cr. U/G. Introduction to analog and digital electronic sound synthesis, recording and audio mixing, acoustics and electronic music history. Individual work in analog and digital music studios. Prereq: jr st, music major; or cons instr; Music 220(R)

328 Digital Synthesis and Systems II. 3 cr. U/G. Application of digital sound media and advanced midi; computing, synthesis, synthesizers, sampling, digital recording and editing methods. Individual projects utilizing the digital music studios. Prereq: jr st; Music major; Music 327(P); previous experience in computers & music; or cons instr

420 (effective 01/24/2005) Advanced Computing and Music. 3 cr. U/G. Advanced application of microcomputers in midi, digital synthesis, electronic orchestration, and varied media interfaces as applied to composition. Individual work in computer music lab Prereq: jr st; music major; Music 220(P); previous experience in computers & music; or cons instr

420 Advanced Computing and Music. 3 cr. U/G. Advanced application of microcomputers in midi musical notation, printing, sequencing and electronic orchestration as applied to composition. Individual work in computer music lab. Prereq: jr st; music major; Music 220(P); previous experience in computers & music; or cons instr

421 (effective 01/24/2005) Materials of Contemporary Music. 3 cr. U/G. Study and analysis of the techniques and styles in contemporary music. Prereq: jr st & Music 230(P)

421 Materials of Twentieth Century Music. 3 cr. U/G. Study and analysis of the techniques and styles in twentieth century music. Prereq: jr st & Music 230(P)

446 Vocal Pedagogy. 2 cr. U/G. Techniques for training the singing voice derived from the study of vocal anatomy, various pedagogy texts, and the observation and teaching of voice lessons. Prereq: jr st & cons instr

447 String Pedagogy in the Studio. 2 cr. U/G. Topics include: technique (instrument hold, shifting, vibrato, spiccato,

etc.), historical survey (tartini, baillot, auer, flesch, etc). Information delivery techniques, master teacher profile, recent trends. Prereq: jr st; cons instr

449 Women in Music: (Subtitled). 3 cr. U/G. Women's roles in musical life; their contributions as performers and composers to various musical styles and repertoires; comparison of their activities with those of men. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change of topic to max of 6 cr. Prereq: jr st; cons instr

450 Introduction to Musicology. 3 cr. U/G. Study of the development of modern musicolgical methodology and its fields of research including ethnomusicology. Prereq: jr st; cons instr

452 Collegium Musicum. 1-2 cr. U/G. Vocal and instrumental groups devoted to the study and performance of music from twelfth through the eighteenth century. Music majors enroll for 1 cr per sem; others for 1 or 2 cr. Prereq: jr st; cons instr

457 Opera Theatre. 0-3 cr. U/G. A concentrated study of the literature and techniques for the musical stage. May be retaken to max of 4 sem. Students needing 0 cr should enroll for Music 457-Z; those needing 1-3 cr should enroll for Music 457-C and specify number of cr. Students who enroll for 0 cr will be assessed a 1-cr fee by the University. Prereq: cons instr & major teacher

458 Opera Apprenticeship. 0-3 cr. U/G. A specialized course reflecting an apprenticeship program with an approved off-campus, professional opera company. May be retaken to max of 4 sem. Students needing 0 cr should enroll for Music 458-Z; those needing 1-3 cr should enroll for Music 458-C and specify number of cr. Students who enroll for 0 cr will be assessed fees for 1 cr. Prereq: jr st; audition; & vocal performance major

489 Workshop: (Subtitled). 1-4 cr. U/G. Specific topic announced in the schedule of classes. Prereq: jr st; additional prereq announced each offering

523 Orchestration. 2 cr. U/G. Study of representative works by means of score, phonograph records, and attendance at rehearsals of the university orchestra and band. Scoring for orchestra and band. Prereq: jr st & Music 323

524 Orchestration. 2 cr. U/G. A continuation of Music 523. Prereq: Music 523

553 Advanced Conducting I. 2 cr. U/G. Advanced study and analysis of conducting techniques. Score reading and interpretation of masterpieces from the standard repertoire. Prereq: sr st & cons instr

554 Advanced Conducting II. 2 cr. U/G. Continuation of Music 553. Prereq: sr st, Music 553(P) & cons instr

559 The Wind Band: Its History and Literature. 3 cr. U/G. Examination of origins and historical significance of the wind band, including a survey of its instrumentation and literature. Prereq: jr st; cons instr

561 Advanced Ensemble: (Subtitled). 1-3 cr. U/G. - May be retaken to max of 9 cr. Prereq: jr st; cons instr

611 Survey of Medieval Music. 3 cr. U/G. A survey of medieval music based upon the study of representative works. Introduction to medieval theory and performance practices. Prereq: jr st; Music 211, 212, 307, & 4 sem Music theory

612 Survey of Renaissance Music. 3 cr. U/G. A survey of renaissance music based upon the study of representative works. Introduction to renaissance theory and performance practice. Prereq: jr st; Music 211, 212, 307 & 4 sem Music theory

620 Advanced Percussion Pedagogy. 1-2 cr. U/G. Techniques for developing and teaching mallet and stick control. Model lesson procedures; methods, music (solo and ensemble) and equipment selection. Prereq: jr st

623 Soundscaping. (Subtitled). 3 cr. U/G. Creation of musical compositions, 'soundscapes' via group. Individual projects involving experimentation with an illustration of various aspects of twentieth century compositional techniques and sound sources. May be retaken to max of 6 cr. Prereq: jr st; writ cons instr

680 Special Studies in Music: (Subtitled). 1-3 cr. U/G. Specific topic will be announced in Timetable when offered. May be retaken with change of topic to max of 9 cr. Prereq: jr st or cons instr

691 Senior Thesis. 2 cr. U/G. - Prereq: sr st. Not available for grad cr at this time

692 Senior Thesis II. 2 cr. U/G. - Prereq: sr st. Not available for grad cr at this time

693 Apprenticeship. (Subtitled). 1-4 cr. U/G. Open to select advanced students who will work as paraprofessionals under the guidance of a program designed jointly by the student, the music department curriculum committee, and a professional mentor approved by the curriculum committee. Prereq: jr st; cons curric comm

703 Graduate Theory Foundations. 3 cr. G. A course for graduate students to include tonal/atonal theory, keyboard harmony, sight singing and ear training. The course may not be taken to fulfill a graduate music degree requirement. Prereq: grad st; recom of theory faculty

704 Graduate Music History. 3 cr. G. An intensive study of selected musical styles and representative repertory in the western tradition from the middle ages through the present, with a focus on listening and score study, the comparison of musical styles from different periods, and discussion of important historical trends. Prereq: grad st; recom of music history faculty

710 Graduate Studies in Music. 3 cr. G. Bibliography and methods for research and paper writing in the field of music. Prereq: grad st

711 Graduate Seminar in Music History: (Subtitled). 3 cr. G. Topics vary. An in-depth study of selected musical works, focusing on a close analysis of scores, historical research, and paper writing. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. May be repeated with change in topic to max of 9 cr. Prereq: grad st & Music 710

715 Choral Literature. 3 cr. G. In-depth investigation of choral repertoire from 1450 to present day, including a study of major genres, composers, styles, and performance practice. Prereq: grad st

718 Violin and Viola Pedagogy Level I. 2 cr. G. A systematic methodology for taking a student through the formative stages of violin and viola playing. Lecture classes, observation or group and individual lessons, supervised teaching in lab

setting. Prereq: grad st or cons instr; Music major

719 Violin and Viola Pedagogy Level II. 2 cr. G. A systematic methodology for taking a student from the formative stages of violin and viola playing through the technically and musically more advanced levels. Lecture classes, observation of group and individual instruction, supervised teaching in lab setting. Prereq: grad st; music major; Music 718(P); or cons instr

720 Violin Pedagogy Level III. 2 cr. G. Advanced emphasis on the teaching of advanced scales, significant violin etudes and major repertoire. Lecture and demonstration classes, observation of group and individual instruction, supervised teaching in lab setting. Prereq: grad st; Music 719(P); or cons instr

721 Viola Pedagogy Level III. 2 cr. G. Advanced emphasis on the teaching of advanced scales, significant etudes (Kreutzer & Campagnoli), orchestral excerpts as teaching etudes, and selected study of advanced viola repertoire. Lecture and demonstration classes, observation of group and individual lessons, supervised teaching in lab setting. Prereq: grad st; Music 719(P); or cons instr

722 Cello Pedagogy Level I. 2 cr. G. A systematic methodology for taking a student from the first lessons through the formative stage of cello playing. Lecture classes, observation of group and individual lessons, supervised teaching in lab setting. Prereq: grad st or cons instr

723 Cello Pedagogy Level II. 2 cr. G. A systematic methodology for taking a student from the formative stage of cello playing through the technically and musically more advanced level. Specific skills include how to teach vibrato and shifting. Lecture classes, observation of group and individual instruction, supervised teaching in lab setting. Prereq: grad st; Music 722(P); or cons instr

724 Cello Pedagogy Level III. 2 cr. G. Advanced emphasis on the teaching of advanced scales, significant etudes and selected study of major repertoire. Lecture and demonstration classes; observation of group and individual instruction, supervised teaching in a lab setting. Prereq: grad st; Music 723(P); or cons instr

730 Advanced Form. 3 cr. G. An in-depth examination of organizational principles that composers have utilized in their compositions across many periods and styles. Specific works chosen to illustrate these characteristics may vary with each class offering. Prereq: grad st

731 Twentieth-Century Theories. 3 cr. G. Contemporary compositional techniques; their theoretical, aesthetic, and historical relationship. Analysis of scores utilizing these techniques. Prereq: grad st

732 Score Reading. 3 cr. G. Reading at the piano from full score. Procedure and practice in piano reduction are studied and applied. The classical, romantic, and contemporary periods are emphasized. Prereq: grad st; some ability at key board

744 Graduate Theory Seminar. 3 cr. G. Contemporary theoretical procedures treating atonality, twelve tone technique, rhythmic concepts and aleatoric principles will be examined. Topics will include analytical techniques; form, harmony and polyphonic texture. Prereq: grad st; diagnostic test or Music 703 with grade of B or better

751 Advanced Piano Repertoire I. 2 cr. G. Advanced study of the piano repertoire, including works of all representative periods. Prereq: grad st; Music 276

752 Advanced Piano Repertoire II. 2 cr. G. Advanced study of the piano repertoire, including works of all representative periods. Prereq: grad st; Music 751(P)

753 Advanced Song Literature I. 2 cr. G. The advanced study of solo art songs from the renaissance to the modern period through recorded examples, in-class performances, and lectures. Prereq: grad st & cons instr

754 Advanced Song Literature II. 2 cr. G. The advanced study and performance of art song or solo song cycles, addressing the special needs of pianists in the role of a vocal coach/accompanist. Prereq: grad st in collaborative piano or cons instr

755 Advanced Instrumental Repertoire I: Strings. 2 cr. G. Comprehensive study of the solo and ensemble literature for string instruments through study, performance, and listening. Prereq: grad st; cons instr

756 Advanced Instrumental Repertoire II: Strings. 2 cr. G. Comprehensive study of solo and ensemble literature for string instruments through study, performance, and listening. Prereq: grad st; cons instr

757 Advanced Instrumental Repertoire I: Brass and Woodwinds. 2 cr. G. Comprehensive study of the solo and ensemble literature for brass and woodwind instruments through study, performance, and listening. Prereq: grad st; cons instr

758 Advanced Instrumental Repertoire II: Brass and Woodwinds. 2 cr. G. Comprehensive study of the solo and ensemble literature for brass and woodwind instruments through study, performance, and listening. Prereq: grad st; cons instr

759 Advanced Organ Repertoire I. 2 cr. G. Advanced study of the solo organ repertoire from the 16th century to the modern period through study, recorded examples, in-class performances and lectures. Prereq: grad st; cons instr

760 Advanced Organ Repertoire II. 2 cr. G. In depth study of selected solo organ repertoire through study, recorded examples, in-class performances and lectures. Prereq: grad st; cons instr

762 Contemporary Music Ensemble. 3 cr. G. For music majors with advanced instrumental and vocal competence. Rehearsals and concert series devoted to complex works by contemporary composers. Prereq: grad st; cons instr

763 Advanced Percussion Performance Repertoire. 2 cr. G. A comprehensive study of the solo and ensemble repertoire for typmani/percussion through study, performance and listening. Prereq: grad st; Music 279 or cons instr

769 Graduate Choral Conducting I. 2 cr. G. Study of conducting problems in choral works of divergent styles/periods. Projects assigned to meet specific student need. Prereq: grad st; admis to MM choral perf or music ed (choral emphasis); UG choral cond course(s); prof cond exp; cons instr

770 Graduate Choral Conducting II. 2 cr. G. Continuing study of conducting problems in choral works of divergent styles/periods. Projects assigned to meet specific student need. Prereq: grad st; Music 769(P) or 553(P); cons instr

771 Graduate Choral Conducting III. 2 cr. G. Advanced analysis of architectural, stylistic and gestural concerns in choral works of divergent styles/periods. Projects assigned to meet specific student need. Supervised conducting time with student's own ensemble. Prereq: grad st; Music 770(P) or 554(P)

772 Advanced Instrumental Conducting. 2 cr. G. Study of conducting problems in instrumental works of all periods. Projects will be assigned to meet the background and needs of students. Practical experience will be gained by conducting university groups. Prereq: grad st & Music 554

781 University Community Orchestra. 1 cr. G. Rehearsal and performance of orchestral music. Intended for non-music majors, music majors playing their secondary instrument, and community members. Prereq: grad st

782 Symphony Orchestra. 1 cr. G. For music majors with advanced playing experience. Rehearsals are devoted to reading orchestral literature of the 18th, 19th, and 20th centuries. Prereq: grad st & cons instr

783 Chamber Orchestra. 1 cr. G. An exploration of literature for chamber orchestra through rehearsal and performance. For Music majors who meet audition req. Prereq: grad st & cons instr

784 Opera Orchestra. 1 cr. G. Orchestra to prepare and perform the uwm opera. Rehearsals and performances according to announced schedule. Members eligible to enroll in Theatre 575. Prereq: grad st & cons instr; music major

788 Symphony Band. 1 cr. G. - For Music majors with advanced playing experience. Prereq: grad st & cons instr

789 Wind Ensemble. 1 cr. G. - For Music majors with advanced playing experience. Prereq: grad st & cons instr

795 Concert Chorale. 1 cr. G. This highly select mixed ensemble performs advanced level music from all periods of choral literature, utilizing instruments when appropriate. Auditions take place during the first week of each new semester. May be retaken to combined max of 6 sem. Prereq: grad st; audition & cons instr

796 Chamber Choir. 1 cr. G. Study and performance of madrigals and vocal chamber music of all styles and periods. Auditions 1st week each sem. Required for 2nd year mm students in vocal performance. Prereq: grad st; cons instr; audition

798 University Choir. 1 cr. G. This large mixed chorus rehearses and performs choral masterpieces from all periods of choral literature, utilizing instrumentalists when appropriate. Voice placements take place during first week of each new semester. May be retaken to combined max of 6 sem. Prereq: grad st; cons instr; audition

799 Advanced Independent Work. 1-3 cr. G. The student must apply for scheduling advanced independent work with the graduate committee, if possible during the semester preceding the project. Prereq: grad st

804 Ensemble Techniques. 1 cr. G. Laboratory sessions under the direction of music performance staff who coach specially formed ensembles. Students perform various works through rehearsal and discuss various techniques of performance. May be retaken each sem to a max of 4 cr. Prereq: grad st; admis to ICM; writ cons dir of ICM

806 Chamber Music Master Class. 1 cr. G. Student participation and stage performance of chamber music with discussion of critiques by institute faculty and guest artists. May be repeated to max of 4 cr. Prereq: grad st; admis to ICM, writ cons director of ICM

811 Seminar In Baroque Music. 3 cr. G. \Investigation of problems of the Music of the Baroque era with reference to the evolution of musical styles in Western Europe from 1600-1750. Prereq: grad st; cons instr

829 Seminar: Historical Perspectives On Violin, Viola And Cello Pedagogy. 2 cr. G. Traces evolution of modern instruments and teaching methods, and explores interdisciplinary tools and resources for the string teacher. Prereq: grad st; Music 720(P), 721(P), 724(P); or cons instr

830 Studies In The History And Literature Of Chamber Music I. 2 cr. G. Survey of the literature and history of chamber music. Topics for study will change, depending in part on needs and interests of institute members. Prereq: grad st; admis to the ICM; writ cons director ICM

831 Studies In The History And Literature Of Chamber Music II. 2 cr. G. Advanced study in literature of chamber works for various combinations. Prereq: grad st; admis to ICM; writ cons director ICM; Music 830

832 Theoretical Concepts In Chamber Music Practice. 2 cr. G. Includes discussion of theoretical concepts related to the field of chamber music. Prereq: grad st; admis to ICM; writ cons of director of ICM

833 Twentieth Century Techniques. 2 cr. G. Studies in twentieth century theoretical/compositional techniques in music. Prereq: grad st; admis to the ICM; writ cons of director of ICM; Music 832

835 Chamber Music Coaching. 2 cr. G. Weekly ensemble coaching by ICM faculty and guest artists. Public performance required. May be repeated to a max of 8 cr. Prereq: grad st; admis to ICM; writ cons director of ICM

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee for 1 cr assessed. Prereq: grad st

911 Seminar In Musicology I. 3 cr. G. Research seminar devoted to the investigation of musical problems. May serve as a basis for developing thesis projects, research papers, and lecture-recitals. Prereq: grad st

990 Research of Thesis. 3 cr. G. Thesis or thesis equivalent in music history, recital, lecture-recital, public performance, or composition. Approval of subject and assignment to staff member by the graduate committee. Prereq: grad st

991 Recital And Lecture Demonstration. 1 cr. G. Public recital and lecture demonstration for string pedagogy students. Approval of subject by student's major teacher and the music graduate committee required. Open only to string pedagogy students. Prereq: grad st; cons instr

999 Research (Independent Work). 1-3 cr. G. Approval of project and assignment to staff member by graduate committee. Prereq: grad st

Music Performance (MUSPERF)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

501 Master Class in Keyboard Instruments, Piano. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

502 Master Class in Keyboard Instruments, Organ. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to music majors only. Prereq: jr st & cons instr

511 Master Class in Voice. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

521 Master Class in Woodwind Instruments, Flute. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

522 Master Class in Woodwind Instruments, Oboe. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

523 Master Class in Woodwind Instruments, Clarinet. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

524 Master Class in Woodwind Instruments, Saxophone. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

525 Master Class in Woodwind Instruments, Bassoon. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

531 Master Class in Brass Instruments, French Horn. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

532 Master Class in Brass Instruments, Trumpet-Cornet. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

533 Master Class in Brass Instruments, Trombone. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

534 Master Class in Brass Instruments, Baritone. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

535 Master Class in Brass Instruments, Tuba. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

541 Master Class in String Instruments, Violin. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

542 Master Class in String Instruments, Viola. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

543 Master Class in String Instruments, Violoncello. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

544 Master Class in String Instruments, Bass Viol. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

545 Master Class in String Instruments, Harp. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr. Not available for grad cr.

551 Master Class in Percussion. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

561 Master Class in Composition. 1 cr. U/G. - AUDIT NOT ALLOWED. May be repeated to max of 6 cr. Open to Music majors only. Prereq: jr st & cons instr

701 Keyboard Instruments, Piano. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

702 Keyboard Instruments, Organ. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

703 Collaborative Piano - Vocal. 2 cr. G. Study and performance of the art song repertoire; development of sight reading, transposition, and vocal coaching skills. AUDIT NOT ALLOWED. May be repeated to max of 8 cr. Open to Music majors only. Prereq: grad st; cons instr; audition

704 Collaborative Piano - Instrumental. 2 cr. G. Study and performance of the standard wind and string solo and ensemble repertoire (excluding string sonatas); piano reductions of orchestral accompaniments. AUDIT NOT ALLOWED. Open to Music majors only. Prereq: grad st; cons instr; audition

705 Techniques of Opera Coaching and Accompanying. 1 cr. G. Introduction to opera coaching and accompanying skills. Students will observe and accompany opera workshop rehearsals and public performances. AUDIT NOT ALLOWED. May be repeated to max of 4 cr. Open to Music majors only. Prereq: grad st; cons instr; audition

706 Sonatas, Piano and String. 1 cr. G. Study and performance of the standard piano and string sonata repertoire from all periods. AUDIT NOT ALLOWED. May be repeated to max of 4 cr. Open to Music majors only. Prereq: grad st; cons instr; audition

711 Voice. 3 cr. G. Principal performance study for graduate students in Music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

721 Woodwind Instruments, Flute. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated

to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

722 Woodwind Instruments, Oboe. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

723 Woodwind Instruments, Clarinet. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

724 Woodwind Instruments, Saxophone. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

725 Woodwind Instruments, Bassoon. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

731 Brass Instruments, French Horn. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

732 Brass Instruments, Trumpet-Cornet. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

733 Brass Instruments, Trombone. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

734 Brass Instruments, Baritone. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

735 Brass Instruments, Tuba. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

741 String Instruments, Violin. 2-3 cr. G. Principal performance study for graduate students concentrating in violin performance (3 cr), or principal instrumental study for graduate students concentrating in string pedagogy (2 cr). AUDIT NOT ALLOWED. May be repeated to max of 12 cr (performance students), or 8 cr (string pedagogy students). Open to Music majors only. Prereq: grad st; cons instr

742 String Instruments, Viola. 2-3 cr. G. Principal performance study for graduate students concentrating in viola performance (3 cr), or principal instrumental study for graduate students concentrating in string pedagogy (2 cr). AUDIT NOT ALLOWED. May be repeated to max of 12 cr (performance students), or 8 cr (string pedagogy students). Open to Music majors only. Prereq: grad st; cons instr

743 String Instruments, Violoncello. 2-3 cr. G. Principal performance study for graduate students concentrating in violoncello performance (3 cr), or principal instrumental study for graduate students concentrating in string pedagogy (2 cr). AUDIT NOT ALLOWED. May be repeated to max of 12 cr (performance students), or 8 cr (string pedagogy students). Open to Music majors only. Prereq: grad st; cons instr

744 String Instruments, Bass Viol. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

745 String Instruments, Harp. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

751 Percussion. 3 cr. G. Principal performance study for graduate students in music in their major area. AUDIT NOT ALLOWED. May be repeated to max of 12 cr. Open to Music majors only. Prereq: grad st; cons instr

761 Advanced Composition. 2 cr. G. Advanced independent performance study in musical composition. AUDIT NOT ALLOWED. May be repeated to total of 8 cr. Prereq: grad st; cons instr

801 Keyboard Instruments, Piano. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to IMC students only. Prereq: grad st; cons instr

821 Woodwind Instruments, Flute. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to ICM students only. Prereq: grad st; cons instr

822 Woodwind Instruments, Oboe. 2 cr. G. Principal performance study for solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to IMC students only. Prereq: grad st; cons instr

823 Woodwind Instruments, Clarinet. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to ICM students only. Prereq: grad st; cons instr

825 Woodwind Instruments, Bassoon. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to ICM students only. Prereq: grad st; cons instr

831 Brass Instruments, French Horn. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. AUDIT NOT ALLOWED. Open to ICM students only. Prereq: grad st; cons instr

841 String Instruments, Violin. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to IMC students only. Prereq: grad st; cons instr

842 String Instruments, Viola. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument.

Public performance required. AUDIT NOT ALLOWED. Open to IMC students only. Prereq: grad st; cons instr

843 String Instruments, Violoncello. 2 cr. G. Principal performance study in solo and chamber works for institute of chamber music students on their major instrument. Public performance required. AUDIT NOT ALLOWED. Open to IMC students only. Prereq: grad st; cons instr

855 Instrumental Master Class. 1 cr. G. Discussion of individual instrumental techniques in chamber music playing. Literature studied depending on group experience and interest. AUDIT NOT ALLOWED. May be repeated to max of 4 cr. Prereq: grad st; admis to ICM; writ cons director of ICM

901 (601) Keyboard Instruments, Piano. 1 cr. G. Principal performance study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 601. May be repeated to max of 6 cr. Music majors only. Prereq: grad st; cons instr

902 (602) Keyboard Instruments, Organ. 1 cr. G. Principal applied music study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 601. May be repeated to max of 6 cr. Music majors only. Prereq: grad st; cons instr

911 (611) Voice. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 601. May be repeated to max of 6 cr. Music majors only. Prereq: grad st; cons instr

921 (621) Woodwind Instruments, Flute. 1 cr. G. Principal applied music study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 621. May be repeated to max of 6 cr. Music majors only. Prereq: grad st; cons instr

922 (622) Woodwind Instruments, Oboe. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 621. May be repeated to max of 6 cr. Music majors only. Prereq: grad st; cons instr

923 (623) Woodwind Instruments, Clarinet. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 623. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

924 (624) Woodwind Instruments, Saxophone. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 624. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

925 (625) Woodwind Instruments, Bassoon. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 625. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

931 (631) Brass Instruments, French Horn. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 631. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

932 (632) Brass Instruments, Trumpet-Cornet. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 632. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

933 (633) Brass Instruments, Trombone. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as a repeat of MusPerf 633. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

934 (634) Brass Instruments, Baritone. 1 cr. G. Principal performance study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as a repeat of MusPerf 634. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

935 (635) Brass Instruments, Tuba. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 635. May be repeated to max of 6 cr. Open to music majors only. Prereq: grad st; cons instr

941 (641) String Instruments, Violin. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 641. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

942 (642) String Instruments, Viola. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 642. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

943 (643) String Instruments, Violoncello. 1 cr. G. Principal performance study for graduate students in music in their non-major area. AUDIT NOT ALLOWED. Counts as repeat of Musperf 643. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

944 (644) String Instruments, Bass Viol. 1 cr. G. Principal applied music study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 644. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

945 (645) String Instruments, Harp. 1 cr. G. Principal applied music study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 645. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

951 (651) Percussion. 1 cr. G. Principal applied music study for graduate students in music in their non-major areas. AUDIT NOT ALLOWED. Counts as repeat of MusPerf 651. May be repeated to max of 6 cr. Open to Music majors only. Prereq: grad st; cons instr

Music Education (MUS ED)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

777 Foundations of Music Education. 3 cr. G. Studies in the history and philosophy of music education, aesthetics, and basic research design. Discussion of current curricular practices as compared with traditional music education. Prereq: grad st

778 Recent Developments in Music Education. 3 cr. G. Studies in music curriculum trends and related socio-cultural factors. Influences of Orff, Kodaly, Dalcroze, Manhattanville, CMP, the Yale seminar, and the Tanglewood symposium. Prereq: grad st

780 General Music Methods and Materials. 2 cr. G. New approaches to secondary general music--particularly jr high related arts/humanities, films, filmstrip packages, records and book resources. Development of teaching units. Prereq: grad st

781 Seminar in Elementary Music. 2-3 cr. G. Study of the principal approaches to teaching elementary classroom music. Work with appropriate resources. Prereq: grad st

782 Music Education Seminar: (Subtitled). 1-3 cr. G. Special offerings on subjects not covered by the basic seminars and other elective music education courses. Prereq: grad st

783 World Music Drumming: Level 1. 3 cr. G. Perform and teach hand drumming ensembles from West Africa and the Caribbean. Prereq: cons instr

784 World Music Drumming: Level 2. 3 cr. G. Learn additional drum ensembles and songs from West Africa, Zimbabwe, the Caribbean, and Brazil. Play xylophone and flute pieces from these areas. Prereq: Mus Ed 783 or cons instr

785 World Music Drumming: Level 3. 3 cr. G. Perform and lead drum, xylophone, flute ensembles and songs from Ghana and the Caribbean. Prereq: Mus Ed 784 or cons instr

799 Independent Study in Music Education. 1-3 cr. G. Detailed independent work under a major professor in an area of Music Education not covered by available courses. Prereq: grad st & cons instr

990 Thesis or Final Project. 1-6 cr. G. Formal written thesis, lecture/recital, major annotated bibliography, curriculum synthesis, or other type of music education project. Must submit proposal to advisor in Music Education and be approved by the Graduate Committee. Retakeable to max of 6 cr. Prereq: grad st

NURSING

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The Master of Science degree program in Nursing is accredited by the Commission on Collegiate Nursing Education. The program is designed to prepare nurses for advanced nursing practice in the community and in institution-based settings. The community health framework in place since 1978 has been expanded to provide the basis for a variety of options for advanced practice nursing. The program offers three clinical tracks: clinical nurse specialist, family nurse practitioner, and post nurse practitioner. An area of clinical specialization is selected by the student according to personal interests and career goals, and serves as the basis for a formal program of study submitted by the student and approved by the student's advisor on entering the program.

Study in the Master's program prepares students to participate in planning and implementing nursing services to meet the special needs of clients particularly in urban communities. Graduates are also prepared to participate in research. Graduates of the Master of Science program will be eligible to sit for a variety of certification examinations as approved by the Wisconsin Board of Nursing.

The PhD program in Nursing at the University of Wisconsin-Milwaukee was approved by the University of Wisconsin System Board of Regents on February 9, 1984, and prepares nurses as scholars to conduct independent and collaborative research, to develop and test theory relevant to nursing, and to improve the quality of care by expanding the body of nursing knowledge. Scholars will be prepared to serve the urban community and improve the general accesibility and acceptbility of health care.

Specialization is achieved through an approved program of study and includes program elements of course work, dissertation, and direction of faculty advisors. This specialization is focused on a particular area of nursing practice and the social context within which it occurs.

The Center for Nursing Research and Evaluation, the Institute for Urban Health Partnerships, the Center for Cultural Diversity and Health, and the Nursing Learning Resource Center are among the resources of the College of Nursing.

Graduate Faculty

PROFESSORS

Devine, Elizabeth, Ph.D., University of Illinois-Chicago, F.A.A.N.
Glass, Lauren K., Ph.D., University of Illinois, F.A.A.N.
Kovach, Christine, Ph.D., University of Rochester
Lundeen, Sally, Ph.D., University of Illinois-Chicago, F.A.A.N.
Rodgers, Beth, Ph.D., University of Virginia
Sawin, Kathleen, D.N.S., Indiana University
Schiffman, Rachel, Ph.D., University of Connecticut
Selder, Florence E., Ph.D., University of Illinois-Chicago, F.A.A.N.
Stevens, Patricia, Ph.D., University of California-San Francisco, F.A.A.N.
Underwood, Sandra, Ph.D., Northwestern University, F.A.A.N.
Wierenga, Mary E., Ph.D., Michigan State University

ASSOCIATE PROFESSORS

Anderko, Laura, Ph.D., University of Illinois-Chicago
Coenen, Amy, Ph.D., University of Wisconsin-Milwaukee, F.A.A.N.
Dean-Baar, Susan, Ph.D., Loyola University, F.A.A.N.
Falco, Suzanne M., Ph.D., New York University
Fontana, Susan, Ph.D., University of Illinois-Chicago
Hewitt, Jeanne B., Ph.D., University of Illinois-Chicago
Hildebrandt, Eugenie, Ph.D., University of the Witwatersrand Medical School
Johnson, Teresa, Ph.D., University of Illinois-Chicago
Kunert, Mary Pat, Ph.D., Medical College of Wisconsin
Leske, Jane, Ph.D., University of Wisconsin-Milwaukee
Litwack, Kim, Ph.D., Kent State University
Marek, Karen, Ph.D., University of Wisconsin - Milwaukee
Schmid, Marlene, Ph.D., University of Iowa
Wilk, Joan A., Ph.D., University of Texas at Austin

ASSISTANT PROFESSORS

Buseh, Aaron, Ph.D., University of Wisconsin-Milwaukee
Forbes, Mitzi, Ph.D., University of Arizona
Lageson, Catherine, Ph.D., University of Wisconsin-Milwaukee
Ott, Carol, Ph.D., Marquette University
Plach, Sandra, Ph.D., University of Wisconsin-Milwaukee
Sebern, Margaret, Ph.D., University of Illinois-Chicago
Settersten, Lori, Ph.D, University of Wisconsin-Madison
Snethen, Julia, Ph.D., University of Wisconsin-Milwaukee
Tharps, Quincy, Ph.D., University of Wisconsin-Milwaukee

Master of Science in Nursing

Admission
The admission requirements of the Master's program in Nursing are consistent with those requirements specified by the Graduate School of the University of Wisconsin-Milwaukee. In addition, students must also meet the following requirements for the College of Nursing:

- A bachelor's degree in Nursing from a professionally accredited program, with a minimum undergraduate grade point average of at least 2.75 (4.0 scale).
- Completion with a grade of C or higher of an upper-level undergraduate course in statistics within the five years immediately preceding admission.
- Current registration as a professional nurse in the State of Wisconsin.
- Completion of the Graduate Record Examination (GRE) within the last five years. The master's program admission requirement of the GRE will be waived for students who have completed a master's degree.

- Three (3) letters of recommendation for graduate study in nursing, two (2) of which are from persons most knowledgeable about the applicant's recent academic and work experiences. Personal interview with a faculty member may be requested.

- Completion of an autobiographical sketch.

These data are used by the Admissions Subcommittee as indicators of academic potential. Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The student is assigned to an advisor at the time of admission.

Credits and Courses
The Master of Science program is offered to prepare Advanced Practice Nurses. This is accomplished through core courses required of all students (24 credits) and completion of requirements for one of three clinical tracks. The following tracks are available:

- Clinical Nurse Specialist Track

- Family Nurse Practitioner Track

- Post Nurse Practitioner Track

Graduate Core Courses: 12 Credits
735 Theoretical Foundations of Advanced Nursing Practice, 3 cr.
727 Epidemiology, 3 cr.
729 Health Care Systems and Advanced Practice, 3 cr.
725 Nursing Research and Knowledge Generation in Nursing, 3 cr.

Advanced Practice Core Courses: 12 Credits
753 Physiologic Basis of Advanced Nursing Practice, 3 cr.
707 Advanced Pharmacology: Application to Advanced Nursing Practice, 3 cr.
754 Comprehensive Assessment of Health: Implications for Clinical Decision-Making, 3 cr.
784 Advanced Nursing Practice Interventions, 3 cr.

Clinical Nurse Specialist Track (22 Credits)
Students selecting this track develop program of study focused on the planning, delivery, and evaluation of advanced practice nursing care to a specified population. Students complete 22 credits in the clinical track for a total of 46 program credits. Designated course work in the clinical specialty is completed under the direction of faculty experts and clinical preceptors. The specialty areas available to clinical nurse specialist students are: adult health nursing (acute and chronic), community health nursing, psychiatric / mental health nursing, maternal-child nursing, and nursing systems.

Clinical Support Courses: 9 Credits
Students in the Clinical Nurse Specialist Track select a minimum of 9 required credits in a substantive area to support clinical specialization. Electives may be selected in nursing or other related disciplines. Not more than one of the electives may be a U/G (Undergraduate/graduate) course for graduate credit.

Clinical Nurse Specialist Practica: 13 Credits

737 Clinical Nurse Specialist: Practicum I, 4 cr.
738 Clinical Nurse Specialist: Practicum II, 4 cr.
739 Clinical Nurse Specialist: Practicum III, 4 cr.
991 Research and Thesis, 1 cr.

RN to MS Option
The RN to MS Track is designed for RN students who are interested in completing both a BS and MS degree. Students in this option complete 12 credits of graduate core courses while enrolled in the BS in Nursing program designed for Registered Nurses. In the last semester of the BS program they apply for admission to the graduate program. In addition to the admission requirements described above students will be required to have completed the 12 credits of graduate core courses with a grade of B or better. Upon admission they complete the remaining 34 required credits in either the Clinical Nurse Specialist or Family Nurse Practitioner Tracks.

Family Nurse Practitioner Track (22 Credits)
Students selecting the Family Nurse Practitioner Track follow a program of study designed to prepare them for advanced nursing practice in primary care settings with families across the lifespan. Designated coursework in the specialty is completed under the direction of faculty experts and clinical preceptors. A three-semester sequence of theory and practicum courses total 22 clinical track credits for a total of 46 program credits.

Family Nurse Practitioner Theory Courses: 9 Credits

767 Family Nurse Practitioner Theory I, 3 cr.
768 Family Nurse Practitioner Theory II, 3 cr.
769 Family Nurse Practitioner Theory III, 3 cr.

Family Nurse Practitioner Practica Courses: 13 Credits

757 Family Nurse Practitioner Practicum I, 3 cr.
758 Family Nurse Practitioner Practicum II, 5 cr.
759 Family Nurse Practitioner Practicum III, 4 cr.
991 Research and Thesis, 1 cr.

Post Nurse Practitioner Track
The Post Nurse Practitioner Track is designed for nurse practitioners who have a bachelor's degree and preparation as a nurse practitioner at the certificate level and wish to pursue a master's degree. Students in this option will complete the 24 credits of the core courses, an experience portfolio, and 1 credit of Research and Thesis for the required clinical project. This track is offered on weekends and during the summer. Special advising is required to establish eligibility and develop a program plan.

Total Program
46 credits for students who complete the Clinical Nurse Specialist Track; 46 credits for students who complete the Family Nurse Practitioner Track; and 25 credits for students who complete the Post Nurse Practitioner Track.

Minimum Grade Requirement
For continuation in the program, in addition to general Graduate School requirements students must achieve a minimum grade of B in all required FNP and CNS practicum courses and a minimum grade of B- in all other required courses.

Thesis
Optional (as a 3 credit elective)

Comprehensive Clinical Project
The student will complete a final comprehensive clinical project.

Time Limit
Students in the Clinical Nurse Specialist Track or the Family Nurse Practitioner Track must complete all degree requirements within seven years of the first enrollment semester as a degree student. Students in the Post Nurse Practitioner Track must complete all degree requirements within five years of the first enrollment as a degree student.

Master of Science in Nursing/Master of Business Administration

The University of Wisconsin-Milwaukee College of Nursing and the School of Business Administration have joined together to collaboratively offer a program designed to provide a combined nursing and business curriculum to strengthen the graduate's performance as a leader and manager in nursing and health care administration.

Admission
Students are admitted to both the University of Wisconsin-Milwaukee graduate programs in nursing and business administration. The admission requirements are consistent with those specified by the UWM Graduate School, College of Nursing and School of Business Administration. Students may choose to complete either the GMAT or GRE and must have at least two years practice in a health care setting. Three letters of reference are required including one from a former faculty and one from a health care employer. Students must also complete foundational business courses either prior to admission to the program or during completion of the degree program (BusMgmt 700 Building Business Interfacing Skills; BusMgmt 701 Basic Quantitative Methods for Business, 2 cr*; BusMgmt 702 Accounting, Finance, and Economics, 3 cr; BusMgmt 703 Marketing, Operations, and Management, 3 cr.).
*Because completion of an undergraduate upper division statistics course is required prior to admission to the MS-Nursing/MBA program, students will be waived from BusMgmt 701.

Credit and Courses
Students accepted into the MS/MBA program complete the following courses

NURSING: 25 CREDITS
725 Nursing Research and Knowledge Generation, 3cr
735 Theoretical Foundations of Advanced Nursing Practice, 3 cr
784 Advanced Nursing Practice Interventions, 3 cr
750 Evaluation of the Quality of Health Care, 3 cr
770 Nursing Administration, 3 cr
771 Nursing Administration Practicum, 3 cr
727 Epidemiology, 3 cr
729 Health Care Systems, 3 cr
991 Research and Thesis (Clinical Project), 1 cr

BUSINESS: 39 CREDITS - BusMgmt
Core Courses
704 Accounting Analysis and Control, 3 cr
705 Corporate Finance, 3 cr
706 Managing in a Dynamic Environment, 3 cr
707 Information Technology for Competitive Advantage, 3 cr
708 Marketing Strategy: Concepts and Practice, 3 cr
709 Data Analysis for Management Applications, 3 cr
710 Economic Analysis for Managers, 3 cr
711 Competitive Operations Strategy, 3 cr
720 Strategic Management in Health Care Organizations OR
712 Strategic Management**, 3 cr
**BusMgmt 720 or Bus Mgmt 712 is the designated integrating course for the coordinated degree program.
6 credit hours of electives, 6 cr
6 credit hours from the College of Nursing that will apply to both degrees 727 Epidemiology, 3 cr
729 Health Care Systems, 3 cr

TOTAL PROGRAM
For the coordinated degree program, the MS in Nursing is a 25 credit hour degree program and the MBA is a 39 credit hour degree program. Students will complete 58 credit hours, 6 of these credit hours are used to meet requirements for both degrees. In addition, MBA foundation coursework (for those entering the program without previous equivalent coursework) consists of four courses - BusMgmt 700, BusMgmt 701, BusMgmt 702, and BusMgmt 703. BusMgmt 701 will be automatically waived based on the Nursing upper level mathematics/statistics entry requirement. A student not completing the requirements for the coordinated degree program would need to complete all requirements for the individual program - MS in Nursing or MBA - in order to receive a degree.

Comprehensive Clinical Project
The student will complete a comprehensive clinical project.

Time Limit
Students in the coordinated MS/MBA degree program must complete all degree requirements within seven years of the first enrollment semester as a degree student.

Post Master's Family Nurse Practitioner Certificate

The post master's family nurse practitioner certificate is designed for registered nurses that have already completed a master's degree in nursing and wish to pursue preparation as a family nurse practitioner.

Admission
The admission requirements of the post master's family nurse practitioner program are consistent with those requirements specified by the Graduate School of the University of Wisconsin-Milwaukee. In addition, students must also meet the following requirements for the College of Nursing:

- A master's degree in Nursing from an accredited program.
- Completion with a grade of B or better graduate level course in physiology, pharmacology, comprehensive assessment, and epidemiology. Evidence of prescriptive authority in the state of Wisconsin will be accepted in place of graduate pharmacology.
- Current registration as a professional nurse in the state of Wisconsin.
- Three (3) letters of recommendation, two (2) of which are from persons most knowledgeable about the applicant's recent academic and work experiences. Personal interviews with a faculty member may be requested.
- Completion of an autobiograhical sketch.

Credits and Courses
Designated coursework in the certificate program is completed under the direction of faculty experts and clinical preceptors. A three consecutive semester sequence of theory and practicum courses totally 21 credits is required for completion of the post master's family nurse practitioner certificate program. Students will need to maintain a 3.0 GPA and meet all other requirements for progression through the practicum courses.

Family Nurse Practitioner Theory Courses (9 credits)

767 Family Nurse Practitioner Theory I, 3 cr.
768 Family Nurse Practitioner Theory II, 3 cr.
769 Family Nurse Practitioner Theory III, 3 cr.

Family Nurse Practitioner Practica Courses (12 credits)

757 Family Nurse Practitioner Practicum I, 3 cr.
758 Family Nurse Practitioner Practicum II, 5 cr.
759 Family Nurse Practitioner Practicum III, 4 cr.

Minimum Grade Requirement
For continuation in the program, in addition to general Graduate School requirements students must achieve a minimum grade of B in all required FNP practicum courses and a minimum grade of B- in all other required courses.

Health Professional Education Certificate

The health professional education certificate is designed to provide health professionals with additional preparation in educational principles and theory to support them in their roles as educators of students and staff in the health professions as well as in the role of patient educator. This program is open to students simultaneously enrolled in a graduate degree program, as well as to health professionals who have completed a baccalaureate, master's or doctoral degree. The certificate program is a collaborative program between the College of Health Sciences and Schools of Nursing and Education, and is coordinated through the College of Nursing.

Admission
Applicants are admitted to the certificate program in one of three categories: post-baccalaureate, current student in a UWM graduate health profession program, or post-graduate student.

- Post-baccalaureate students must have completed a bachelor's degree in a health profession discipline with a grade point average of 2.75 or above (4.0 scale) and not be currently enrolled in a graduate degree program at UWM.
- The admission requirements of the health professional educational certificate for students enrolled in good standing in a UWM graduate health profession program are consistent with those requirements specified by the program.
- Post-graduate students must have completed a graduate degree in a health profession or related discipline with a grade point average of 3.0 or above (4.0 scale).

Credits and Courses
The completion of 15 credit hours (5 courses) is required for the certificate program. All students are required to complete 2 core courses, Principles & Foundations of Adult Education (3 credits) and Practicum & Seminar in Health Professional Education (3 credits). In addition students will complete 3 credits in the area of curriculum/program planning and evaluation, 3 credits in teaching/instructional strategies, and 3 credit hours in an elective area. A current listing of courses that meet these requirements can be obtained from the College of Health Sciences or the College of Nursing. Students will need to maintain a 3.0 GPA and meet all other requirements of the Graduate School for continuation in the program. The Practicum and Seminar in Health Professional Education is the last course taken in the certificate program.

Up to six credits of graduate courses taken at UWM or another institution prior to admission to the certificate program will be allowed to transfer to meet requirements for the certificate. Such courses must meet Graduate School requirements for transfer credit.

Time Limit
The student must complete all certificate course work within three years of initial enrollment in the certificate program.

Doctor of Philosophy in Nursing

Admission
An applicant must meet Graduate School

requirements plus the following College of Nursing requirements to be considered for admission to the doctoral program in Nursing:

- A bachelor's degree with a major in nursing from a professionally accredited College of Nursing.
- A cumulative grade point average of 3.2 on a 4.0 scale for all previous coursework.
- Submission of scores on the General Test portion of the Graduate Record Examination; test taken within last five years.
- Current registration in nursing in one of the jurisdictions of the United States or in another country.
- A written statement prepared by the applicant describing previous professional experience, personal career goals, research interests motivation for doctoral study, and educational objectives to be accomplished in the program.
- Recommendations from at least three persons who have known the applicant in a professional capacity.
- Two examples of original work that demonstrate the applicants academic potential.
- An interview may be required of applicants to the doctoral program.

Reapplication
A student who receives the master's degree must formally reapply for admission to the Graduate School before continuing studies toward the PhD.

Major Professor as Advisor
The student is expected to select a major professor to supervise the student's studies as specified in the Graduate School regulations. Incoming students are assigned an initial program advisor. Before completion of two semesters of full-time study or the equivalent in earned credits, the student selects a major professor, whose appointment is subject to the approval of the College of Nursing Graduate Admission and Progression Committee. The student, in consultation with the major professor, establishes a formal plan of study that is submitted to the College of Nursing Graduate Admission and Progression Committee for approval. For subsequent changes, the student must file a revised plan of study for approval by this committee.

Course of Study
Minimum degree requirements are 61 graduate credits beyond the bachelor's degree, at least 31 of which must be earned in residence at the University of Wisconsin-Milwaukee. The College of Nursing requires a minimum of 49 graduate credits beyond the master's degree in nursing or master's graduate core courses.

Nursing Core (8 credits)
801 Foundations of Nursing Inquiry, 3 cr.
802 The Science of Nursing, 3 cr.
803 Nursing Science and Public Policy, 2 cr.

Specialty Core (20 credits; minimum of 6 credits must be taken outside the College of Nursing)
820 Analysis of Nursing Phenomenon I, 3 cr.
821 Analysis of Nursing Phenomenon II, 2 cr.
Electives, 15 cr.

Research Core (18 credits)
881 Measurement for Nursing Research, 2 cr.
882 Qualitative Approaches to Nursing Research, 3 cr.
883 Quantitative Approaches to Nursing Research, 3 cr.
890 Issues in Nursing Research, 3 cr.
899 Practicum in Nursing research, 4 cr.
Multivariate Statistics, 3 cr.

Dissertation (minimum 3 credits)
997 Doctoral Dissertation, 3 cr.

Specialization is achieved through an approved program of study and includes program elements of minor field course work, supervised research experiences, dissertation, and the direction of faculty advisors. The student specializes in a particular area of nursing practice and the social context within which it occurs. The plan for this is developed in consultation with the major professor. Minimum requirements for all formal coursework other than dissertation research can be expected to take at least two academic years of study.

Students admitted without a master's degree in nursing must complete 12 credits of master's program graduate core courses before beginning doctoral level nursing courses. The graduate core courses that must be completed are:
725 Nursing Research and Knowledge Generation, 3 cr.
727 Epidemiology, 3 cr.
729 Health Care Systems and Advanced Practice, 3 cr.
735 Theoretical Foundations of Advanced Nursing Practice, 3 cr.
Post baccalaureate students admitted to the doctoral program will not be granted a master's degree in nursing unless all requirements for the master's degree in nursing are met.

Minimum Grade Requirement
For the continuation in the program, in addition to general Graduate School requirements students must achieve a minimum grade of B- in all required courses.

Minor Field
The student must complete a minor of 8 to 12 credits, 6 or more of these credits to be earned from courses in departments outside the College of Nursing. Such courses are selected for their relevance to the student's area of specialization, and are to be taken in the substantive content of the selected minor field.

Language Requirement
Foreign language competency may be required at the option of the student's major professor.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examination
The student must pass a doctoral preliminary examination to qualify for formal admission to candidacy for degree. The doctoral examination is comprised of a written and an oral component, taken in that sequence, with each component requiring a passing grade for successful completion. The examination is an integrative experience that is designed to validate the student's mastery of the content of the doctoral program curriculum and readiness to

conduct independent research within the student's area of specialization as identified in the formal plan of study.

Dissertation
The candidate must write a dissertation, which demonstrates ability to formulate a research topic and pursue independent and original investigation under the direction of the major professor.

Dissertation Defense
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation. A candidate who does not pass this examination may apply for reexamination within one year from the initial examination date. This reexamination may occur only one time. A candidate who does not pass this examination within program time limits may be required to undergo another comprehensive preliminary examination and readmitted to the program and/or candidacy.

Time Limit
The student must complete all requirements for the degree within seven years from the date of initial enrollment in the program. The student must complete all requirements for the degree within four years from the time of attainment of dissertator status.

For additional information on Graraduate School PhD requirements, see the Doctoral Student and Advisor Manual, published by the Graduate School.

Courses
Nursing (NURS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM-sponsored program before course work levels, content, and credits are determined and/or in especially prepared program course work. May be retaken with change in topic; max of 9 cr for grad students. Prereq: acceptance for Study Abroad Prog

630 Occupational Health and Safety. 3 cr. U/G. An interdisciplinary course designed to build a framework for assessment of factors relating to the promotion of health and safety for employees. Prereq: jr st

650 Clinical Oncology Nursing. 3 cr. U/G. Etiology, epidemiology, pathophysiology, treatment modalities and nursing management of cancer patients. Prereq: Nurs 334(FndNurs/HlthMnt/HlthRst 334)(P) or admis to Collaborative Degree Prog or cons instr

661 Current Legal Problems in Nursing. 2 cr. U/G. Consideration of the legal rights and responsibilities of the professional nurse. Discussion of recent cases, contracts, recent legislation, licensure problems, torts, negligence and criminal cases. Prereq: sr st or R.N.

700 Health Development of the Emerging Family. 3 cr. G. Advanced examination of cognitive, affective, and behavioral principles, problems of conceptualization, and empirical evidence related to health of the emerging urban family. Prereq: grad st or cons instr

701 Women's Health in the Workplace. 3 cr. G. Work-health interactions and their impact on working women. Health promoting strategies are devised for intervention at the personal, organizational, and societal levels. Prereq: grad st or cons instr

705 Instructional Strategies for Patient Education. 3 cr. G. Study of instructional strategies applicable in patient education; opportunity to select, develop and evaluate the effectiveness of particular strategies in individual and/or group situations. Prereq: grad st or cons instr

707 (effective 01/24/2005) Advanced Pharmacology: Application to Advanced Nursing Practice. 3 cr. G. Advanced knowledge related to use of pharmacotherapeutics in management of common health problems, nursing prescriptive authority, and development and use of clinical practice guidelines. Counts as repeat of FndNurs/HlthMnt/HlthRst 707. Prereq: grad st; admis to Nursing degree program; Nurs 753(FndNurs/HlthMnt/HlthRst 753)(P) or cons instr

707 Advanced Pharmacology: Application to Advanced Nursing Practice. 3 cr. G. Advanced knowledge related to use of pharmacotherapeutics in management of common health problems, nursing prescriptive authority, and development and use of clinical practice guidelines. Counts as repeat of FndNurs/HlthMnt/HlthRst 707. Prereq: grad st; Nurs 753(FndNurs/HlthMnt/HlthRst 753)(P) or cons instr

710 Patient Care Systems. 3 cr. G. Seminar and individual student projects concerning decision making processes involved in determining functions, procedures, environment and organizational support required for systems within patient care settings. Prereq: grad st or cons instr

715 Health Attitudes and Practices. 3 cr. G. Study of the theory and development of health attitudes and practices as they affect and are related to urban health and the delivery of health services. Prereq: grad st or cons instr

720 Biostatistics and Applications for Nursing Practice. 2 cr. G. Introduction to biostatistics with special emphasis on the identification, description, application, and interpretation of clinical data about nursing phenomena and nursing practice. Prereq: grad st or cons instr

725 Nursing Research and Knowledge Generation. 3 cr. G. Introduction to research and knowledge generation in nursing including types of research, methods of research, preparation of proposals, data analysis, and utilization of research. Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 725. Prereq: grad st; admis to Nursing degree program or cons instr

727 (effective 01/24/2005) Epidemiology. 3 cr. G. Study of the distribution and determinants of health and disease in populations including related methods and application. Counts as repeat of FndNurs/HlthMnt/HlthRst 727. Prereq: grad st; admis to UWM graduate degree program or cons instr

727 Epidemiology. 3 cr. G. Study of the distribution and determinants of health and disease in populations including related methods and application. Counts as repeat of FndNurs/HlthMnt/HlthRst 727. Prereq: grad st or cons instr

729 (effective 01/24/2005) Health Care Systems and Advanced Practice. 3 cr. G. Study of interrelationships in communities and their influence on health. Focus on advanced nursing practice, primary

health care, and payment for health care across settings. Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 729. Prereq: grad st; admis to Nursing degree program or cons instr

729 Health Care Systems and Advanced Practice. 3 cr. G. Study of interrelationships in communities and their influence on health. Focus on advanced nursing practice, primary health care, and payment for health care across settings. Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 729. Prereq: grad st Nurs or cons instr

730 Theoretical Foundations in Community Health. 3 cr. G. Study of the dynamic interrelationships of a number of societal systems: economic, political, education, religious, welfare and health. Prereq: grad st or cons instr

732 Theoretical Foundations in Family Nursing. 3 cr. G. Dynamic interrelationships of personal systems: physiological, psychological & social as related to extended family units. Theory & laboratory study of family dimensions of community health nursing. Prereq: grad st or cons instr

735 (effective 01/24/2005) Theoretical Foundations of Advanced Nursing Practice. 3 cr. G. Concepts, frameworks, and theories for nursing practice, role development, and nursing service delivery for advanced practice with individuals and aggregates. Counts as repeat of FndNurs/HlthMnt/HlthRst 735. Prereq: grad st; admis to Nursing degree program or cons instr

735 Theoretical Foundations of Advanced Nursing Practice. 3 cr. G. Concepts, frameworks, and theories for nursing practice, role development, and nursing service delivery for advanced practice with individuals and aggregates. Counts as repeat of FndNurs/HlthMnt/HlthRst 735. Prereq: grad st Nurs or cons instr

737 Clinical Nurse Specialist: Practicum I. 4 cr. G. Using a theoretical and research base, the student explores, discusses, and enacts the advanced clinical nursing practice role in a chosen area of practice. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 737. Prereq: grad st; Nurs 725 (FndNurs/HlthMnt/HlthRst 725)(C), 754(HlthMnt 754)(C)

738 Clinical Nurse Specialist: Practicum II. 4 cr. G. Continuation of practicum I: second semester advanced clinical nursing practice. Not open to students with cr in FndNurs/HlthMnt/HlthRst 738. Prereq: grad st; Nurs 707(FndNurs/HlthMnt/HlthRst 707)(C); Nurs 737(FndNurs/HlthMnt/HlthRst 737)(P); Nurs 784(FndNurs/HlthMnt/HlthRst 784)(C)

739 Clinical Nurse Specialist: Practicum III. 4 cr. G. Continuation of practicum II: third semester advanced clinical nursing practice. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 739. Prereq: Nurs 738(FndNurs/HlthMnt/HlthRst 738)(P)

740 Seminar in Community Health Nursing: (Subtitled). 4 cr. G. Recent developments, research and current knowledge in community health nursing. Focus on specific clinical areas of practice. Topics and any additional prerequisites announced in schedule of classes each time the course is offered. May be repeated with change in topic to max of 8 cr. Prereq: grad st or cons instr

742 Theoretical Foundations in Maternity Nursing. 3 cr. G. Advanced study of psychological, physiological and cultural factors affecting the childbearing woman, her family, and extended family. Theory and laboratory study focuses on nurse-patient interactions and nursing intervention. Prereq: grad st or cons instr

745 Community Mental Health Nursing. 4 cr. G. Concepts of community mental health nursing. Nature and scope of preventive treatment and rehabilitative components; roles and relationships in provision of services. Field experience arranged. Prereq: grad st or cons instr

747 Theoretical Foundations of Nursing in Chronic Disability. 3 cr. G. Reports and discussions of recent research and current problems in nursing in chronic disability. Clinical experiences with patient interactions in chronic disabilities. Prereq: grad st or cons instr

748 Thanatology: Theories and Issues for the Practitioner. 3 cr. G. Theories, issues, and research related to death, dying and bereavement. Implications for professional practice. Prereq: grad st

750 Evaluation of the Quality of Health Care. 3 cr. G. Examination, development and utilization of frameworks and tools for implementation and evaluation of programs of health care quality management for groups of patients. Prereq: grad st or cons instr

753 (effective 01/24/2005) Physiologic Basis of Advanced Nursing Practice. 3 cr. G. Human physiologic responses to actual and potential health problems, methods of measurement, developmental and environmental influences, and implications for advance nursing practice. Counts as repeat of FndNurs/HlthMnt/HlthRst 753. Prereq: grad st ; admis to Nursing degree program or cons instr

753 Physiologic Basis of Advanced Nursing Practice. 3 cr. G. Human physiologic responses to actual and potential health problems, methods of measurement, developmental and environmental influences, and implications for advance nursing practice. Counts as repeat of FndNurs/HlthMnt/HlthRst 753. Prereq: grad st or cons instr

754 (effective 01/24/2005) Comprehensive Assessment of Health: Implications for Clinical Decision-Making. 3 cr. G. Comprehensive assessment of health in individuals and aggregates, including measurement of health status, appraisal of needs, analysis of environmental contexts, and development of diagnostic strategies. Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 754. Prereq: grad st; admis to Nursing degree program; Nurs 753(Fndnurs/Hlthmnt/Hlthrst 753)(P); or cons instr

754 Comprehensive Assessment of Health: Implications for Clinical Decision-Making. 3 cr. G. Comprehensive assessment of health in individuals and aggregates, including measurement of health status, appraisal of needs, analysis of environmental contexts, and development of diagnostic strategies. Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 754. Prereq: grad st; Nurs 753(Fndnurs/Hlthmnt/Hlthrst 753)(P); or cons instr

755 Grounded Theory and Concept Analysis--Two Qualitative Approaches in Depth. 3 cr. G. In-depth exploration of two diverse qualitative research approaches, including the philosophical foundations and experience in application of the methods to nursing problems. Counts as repeat of FndNurs 755. Prereq:

grad st; Nurs 725(FndNurs/HlthMnt/HlthRst 725)(P)

756 (HlthRst 755) Issues in the Health Care of Older Adults. 3 cr. G. Current knowledge, research, and issues in the design and delivery of health services for older adults. Counts as repeat of HlthRst 755. Prereq: grad st or cons instr

757 Family Nurse Practitioner Practicum I. 3 cr. G. First of a three-practicum sequence designed to provide practice experience caring for individuals, families, and populations in primary care settings. Not open for cr to students with cr in FndNurs/HlthMnt/HlthRst 757. Prereq: grad st; Nurs 707(FndNurs/HlthMnt/HlthRst 707)(P); Nurs 725(FndNurs/HlthMnt/HlthRst 725)(P); Nurs 727(FndNurs/HlthMnt/HlthRst 727(P); Nurs 729(FndNurs/HlthMnt/HlthRst 729)(P); Nurs 735(FndNurs/HlthMnt/HlthRst 735)(P); Nurs 754(FndNurs/HlthMnt/HlthRst 754)(P); Nurs 784(FndNu

758 Family Nurse Practitioner Practicum II. 5 cr. G. Second of a three-practicum sequence focused on family nurse practitioner practice based on understanding the centrality of the patient-provider relationship. Not open for cr to students with cr in FndNurs/HlthMnt/HlthRst 758. Prereq: Nurs 757(FndNurs/HlthMnt/HlthRst 757)(P); 767(FndNurs/HlthMnt/HlthRst 767)(P); & 725(FndNurs/HlthMnt/HlthRst 725)(C)

759 Family Nurse Practitioner Practicum III. 4 cr. G. This is the last of a three-sequence practicum. Emphasis is on health policy, ethical, and professional issues that influence clinical decision-making in primary care. Not open for cr to students with cr in FndNurs/HlthMnt/HlthRst 759. Prereq: grad st; Nurs 758 (FndNurs/HlthMnt/HlthRst 758)(P); 768(FndNurs/HlthMnt/HlthRst 768)(P)

760 Processes of Aging. 3 cr. G. An overview of the processes of aging including biological, psychological, and sociological perspectives. Emphasis on theories of development, gerontological research findings, and health services applications. Prereq: grad st or cons instr

762 Family Theory and Intervention Strategies for Advanced Nursing Practice. 3 cr. G. Cognitive, affective, and behavioral principles related to the functioning of the family and its members. Emphasis on therapeutic interventions used in advanced nursing practice. Prereq: grad st or cons instr

763 Issues in Women's Health and Development. 2-3 cr. G. Current physical, mental health, and developmental issues affecting women. Examination of the role of gender in health care research and clinical practice. Prereq: grad st or cons instr

764 Changing Health Behaviors. 3 cr. G. Enhancement of knowledge related to the process of behavioral change, models of change, factors that affect change behavior, and issues related to measuring change. Prereq: grad st or cons instr

765 Strtgs for Nurses Effctng Chnge in Health Care/Health Related Pltcl Systms. 3 cr. G. Theory and process of health care/health related political systems with application of political strategies, including the creation of new systems, for influencing existing systems. Prereq: grad st or cons instr

767 Family Nurse Practitioner Theory I. 3 cr. G. Introductory course designed to prepare family nurse practitioners to deliver health care to individuals, families, and populations Counts as repeat of Fndnurs/Hlthmnt/Hlthrst 767. Prereq: grad st; Nurs 707(FndNurs/HlthMnt/HlthRst 707)(P); Nurs 725(FndNurs/HlthMnt/HlthRst 725)(P); Nurs 727(FndNurs/HlthMnt/HlthRst 727)(P); Nurs 729(FndNurs/HlthMnt/HlthRst 729)(P); Nurs 735(FndNurs/HlthMnt/HlthRst 735) (P); Nurs 754(FndNurs/HlthMnt/HlthRst 754)(P); Nurs 784(Fnd/HlthMnt/HlthRst 78

768 Family Nurse Practitioner Theory II. 3 cr. G. Second of a three-course sequence focused on the delivery of primary care services within a relationship-centered care framework. Counts as repeat of FndNurs/HlthMnt/HlthRst 768. Prereq: Nurs 757(FndNurs/HlthMnt/HlthRst 757)(P); 767(FndNurs/HlthMnt/HlthRst 767)(P); & 725(FndNurs/HlthMnt/HlthRst 725)(C)

769 Family Nurse Practitioner Theory III. 3 cr. G. Last of a three-sequence course focused on health policy and professional issues that affect the delivery of primary care by family nurse practitioners. Counts as repeat of FndNurs/HlthMnt/HlthRst 769. Prereq: Nurs 758(FndNurs/HlthMnt/HlthRst 758)(P); 768(FndNurs/HlthMnt/HlthRst 768)(P)

770 Nursing Administration. 3 cr. G. Relevant topics grounded in research and theory that are related to professional development of nursing leadership and management roles in health care organizations. Prereq: grad st or cons instr

771 Nursing Administration Practicum. 3 cr. G. Applying theory and research, the student will explore, discuss, and actively participate in an advanced administration practice role in a healthcare organization. Prereq: grad st or cons instr

779 Special Topics Seminar. (Subtitled). 1-3 cr. G. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. Counts as repeat of FndNurs/HlthMnt/HlthRst 779. May be repeated with change in topic to max of 6 cr. Prereq: grad st or cons instr

780 Study Abroad: (Subtitled). 1-9 cr. G. Designed to enroll graduate students in UWM-sponsored program before content and credits are determined and/or in especially prepared program course work. May be taken w/ chg in topic to 9 cr max. Prereq: Acceptance for Study Abroad Program

784 (effective 01/24/2005) Advanced Nursing Practice Interventions. 3 cr. G. Advanced knowledge and skills for developing, implementing, and evaluating nursing interventions for common nursing phenomena with individuals and aggregates. Counts as repeat of FndNurs/HlthMnt/HlthRst 784. Prereq: grad st; admis to Nursing degree program or cons instr

784 Advanced Nursing Practice Interventions. 3 cr. G. Advanced knowledge and skills for developing, implementing, and evaluating nursing interventions for common nursing phenomena with individuals and aggregates. Counts as repeat of FndNurs/HlthMnt/HlthRst 784. Prereq: grad st or cons instr

786 Applied Biostatistics in Ergonomics. 3 cr. G. Statistical methods used in ergonomic studies to analyze, summarize, and report measurements and data. 2 hr lec & 2 hr lab/week. Jointly offered with &

counts as repeat of OccThpy 786 & Ind Eng 786. Prereq: grad st; Ind Eng 580(P); a course in statistics or cons instr

787 Issues in Ergonomics: Epidemiology. 1 cr. G. Concepts in epidemiological studies employed to study risk factors in ergonomic research. Design considerations, strengths and weaknesses of different types of studies. Jointly offered with & counts as repeat of OccThpy 787 & Ind Eng 787. Prereq: grad st, Ind Eng 580, a course in statistics or cons instr

788 Legal Issues and Regulatory Agencies in Ergonomics. 1 cr. G. Understanding of ergonomic regulations, regulatory sets, and agencies' and workers' compensations laws. Jointly offered with & counts as repeat of OccThpy 788 & Ind Eng 788. Prereq: grad st; Ind Eng 580(P); a course in statistics or cons instr

790 Design Project. 2-3 cr. G. Integration and application of concepts learned in other ergonomic courses to analyze and abate ergonomic hazards in a scientific manner. Jointly offered with & counts as repeat of OccThpy 790 & Ind Eng 790. Prereq: grad st; Ind Eng 780(P), 783(P), 786(P), 788(P), or cons instr

796 Seminar in Nursing Research. 2 cr. G. Dialogue preparatory to conducting research or project study with emphasis on problem delineation, methodological process and organization of study report. Prereq: grad st; Nurs 725(FndNurs 725)(P) or cons instr

797 Independent Study for Graduate Students. 1-6 cr. G. Opportunity for students to pursue study in a subject area of special need or interest in community health nursing under guidance of graduate faculty. Prereq: grad st; cons instr

801 Foundations of Nursing Inquiry. 3 cr. G. Study of historical evolution of contemporary nursing science in terms of important philosophical and empirical antecedents. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 801. Prereq: admis to doctoral prog in Nursing or cons instr

802 The Science of Nursing. 3 cr. G. Study of nursing science through the exploration of the interrelationships among the theory, research, and practice of nursing. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 802. Prereq: admis to doctoral prog in nursing or cons instr; Nurs 801(FndNurs/HlthMnt/HlthRst 801)(NP)

803 Nursing Science and Public Policy. 2 cr. G. Explores the roles and accountability of nursing scientists in responding to the health and social needs of the public and shaping of public policy. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 803. Prereq: admis to doctoral prog in Nursing or cons instr

820 Analysis of Nursing Phenomena I. 3 cr. G. Theoretical exploration of selected phenomena relevant to nursing science. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 820. Prereq: admis to doctoral prog in Nursing, Nurs 802(FndNurs/HlthMnt/HlthRst 802)(P)

821 Analysis of Nursing Phenomena II. 2 cr. G. Synthesis, application, and evaluation of theories and technologies related to selected phenomena relevant to nursing science in terms of specific patient population characteristics. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 821. Prereq: Nurs 820(FndNurs/HlthMnt/HlthRst 820)(P)

879 Special Topics in Nursing Research: (Subtitled). 1-3 cr. G. Intensive study of selected research methodologies used to investigate nursing phenomena; topics vary by sections. Counts as repeat of FndNurs/HlthMnt/HlthRst 879. May be repeated with change of topic to max of 9 cr. Prereq: admis to doctoral prog in nursing or cons instr

881 Measurement for Nursing Research. 2 cr. G. Study of theories of measurement and scaling, properties of research instruments, design and testing of instruments for nursing research. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 881. Prereq: admis to doctoral prog in nursing or cons instr

882 Qualitative Approaches to Nursing Research. 3 cr. G. Diverse qualitative design and analysis strategies used in the study of nursing phenomena. Emphasis will be to critique existing research and to plan future research. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 882. Prereq: admis to doctoral prog in nursing or cons instr

883 Quantitative Approaches to Nursing Research. 3 cr. G. Major quantitative designs and data management/analysis strategies used in clinical nursing research. Emphasis will be to critique existing research and to plan future research. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 883. Prereq: admis to doctoral prog in Nursing or cons instr

884 Computer Applications for Qualitative Analysis. 1 cr. G. Types, uses, and implications of computer applications for qualitative data analysis; includes in-depth experience with a selected program. Prereq: Nurs 882 (P), or Ad Ldsp 729 (P), or Urb Std 979 (P), or Educ 881 (P); or cons instr

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee assessed for 1 cr. Prereq: grad st; cons School of Nursing advisor

890 Issues in Nursing Research. 3 cr. G. Examination of issues and methods common across qualitative and quantitative clinical nursing research as well as issues and methods inherent when approaches are combined. Not open to students who have cr in FndNurs/HlthMnt/HlthRst 890. Prereq: grad st; Nurs 881(FndNurs/HlthMnt/HlthRst 881)(NP), 882(FndNurs/HlthMnt/HlthRst 882)(NP), & 883(FndNurs/HlthMnt/HlthRst 883)(NP); or cons instr

897 Independent Study for Doctoral Students. 1-6 cr. G. Opportunity for the student to pursue study in a subject area of special need or interest under the guidance of graduate faculty. Prereq: doctoral student status; cons instr

899 Practicum in Nursing Research. 1-6 cr. G. Mastery of research skills and techniques through participation in faculty research. May be repeated to a total of 6 cr. Prereq: admis to doctoral prog in nursing or cons instr

991 Research and Thesis. 1-3 cr. G. Independent research and thesis writing under the supervision of member of graduate faculty. May be retaken to max of 3 cr. Prereq: grad st; cons advisor UWM School of Nursing

997 Doctoral Dissertation. 1-3 cr. G. - May be repeated. Prereq: grad st; admis to candidacy for the PhD; cons advisor

OCCUPATIONAL THERAPY

College of Health Sciences

Degree Conferred: MS in Occupational Therapy
Phone: (414) 229-4713
E-mail: stoffelv@uwm.edu
Web site: cfprod.imt.uwm.edu/chs/gp/ot/gotmenu.html

The Department of Occupational Therapy offers a Master of Science degree program in Occupational Therapy. This program provides graduate instruction and research for occupational therapists interested in advanced study in clinical practice, preparation for an academic career, or development of administrative skills. Students may select a thesis option (Option A) or a non-thesis project option (Option B) in pursuing this degree program.

Graduate Faculty

PROFESSOR

Smith, Roger O., Ph.D., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Ezenwa, Bertram N., Ph.D. University of Saskatchewan, Canada
Haertlein, Carol Leonardelli, Ph.D., Marquette University
King, Phyllis, Ph.D., University of Wisconsin-Milwaukee, Chair
King, Theodore I., Ph.D., Michigan State University
Stoffel, Virginia, M.S., University of Wisconsin-Milwaukee

ASSISTANT PROFESSORS

Kamm, Kathi, Ph.D., Indiana University-Bloomington
Taugher, Mary P., Ph.D., University of Wisconsin-Milwaukee

Master of Science in Occupational Therapy

Admission
An applicant must meet Graduate School requirements and have graduated from a World Federation of Occupational Therapy member school or equivalent to be considered for admission to the program. Students may enroll at the beginning of the spring, summer, or fall semesters, either on a full-time or part-time basis. Students in the B.S.O.T. program at UWM may apply to enter the M.S. in O.T. at the completion of Semester I in their senior year.

- Applicants may be admitted to regular status if their grade point average is the equivalent of 3.0 or above (scale of 4.0). Averages below 3.0 but above 2.75 may be considered for admission on a probationary basis. Probationary status is removed after successful completion of the first 9 graduate credits if a grade point average of 3.0 or above is achieved.
- Three letters of reference, preferably from academic and/or clinical sources, must be submitted.
- Along with the application form, the applicant must submit a writing sample. This writing sample may be a paper submitted in a college course, a manuscript submitted for publication, a brochure/description of a clinical program, or another form of written material authored by the applicant within the past five years.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The Graduate Coordinator may serve as the temporary advisor to incoming students.

Credits and Courses
The minimum degree requirement for the Master of Science in Occupational Therapy program is 30 graduate credits.

Students must complete 12 credits of core courses:

Advanced Application of Instrumentation
Theory in Occupational Therapy
Research in Occupational Therapy
(quantitative research or statistics is a prerequisite for this course which, may be waived if taken as part of undergraduate studies)
Advances in Occupational Science
Advanced Application of Occupational Therapy Theory
Depending on the Option (A or B) selected, students complete 6-9 elective credits in Occupational Therapy. Only 3 credits per field service course (696-510 and 696-515 may be applied toward the master's degree requirements.

Students must also complete 6 elective credits taken in occupational therapy or other UWM graduate departments recommended by the student's thesis committee or major professor.

Option A: Thesis Option
Students prepare a research thesis which will earn 6 credits of the required 30 graduate credit minimum. Option A students complete 6 credits of elective courses offered by the Occupational Therapy program. Each student is responsible for identifying a major professor and a thesis committee before completing 12 graduate credits. The thesis committee should consist of a minimum of three members: the major professor (an O.T. program graduate faculty member), a UWM graduate faculty member, and one other member. The thesis committee approves a program of studies designed to lead the student into the thesis research area. The thesis research topic will be identified by the student in concert with the thesis committee.

Comprehensive Examination
The student must pass a comprehensive oral examination in defense of the completed thesis. The oral examination committee will be the thesis committee.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Option B: Project Option
Students prepare a project which will earn 3-6 credits of the required 30 graduate credit minimum. Option B students complete elective courses offered by the Occupational Therapy program for a total of 12 credits when added to project credits. Each student is responsible for identifying

a major professor before completing 12 graduate credits. The project committee should consist of a minimum of two members: the major professor (an O.T. program graduate faculty member) and one other member.

The major professor approves a program of studies which must also be approved by the Graduate Program Coordinator. The project must be written in compliance with program format requirements.

Comprehensive Examination
The student must pass an oral examination in defense of the completed project. The oral examination committee will be the project committee.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Courses

Occupational Therapy (OCCTHPY)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

329 Occupational Therapy in Gerontology. 3 cr. U/G. In-depth study of occupational therapy principles and practice in working with the elderly in institutions and the community. Prereq: jr st in OccThpy Prog

427 Essentials of Splinting. 3 cr. U/G. Evaluation and splint fabrication of upper and lower extremity and trunk. Hands-on lab experience in splint design using various patterns, applications, and materials. Prereq: Bio Sci 203(P); Hum Kin 320(P) or cons instr

497 Study Abroad - Occupational Therapy: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared course work. Retakable w/chg in topic. Prereq: acceptance to Study Abroad Prog

510 Occupational Therapy Field Service I. 6 cr. U/G. Practical application of occupational therapy in health programs for the prevention of psychosocial disorders and for treatment, rehabilitation, and maintenance. Three months field service. Prereq: sr or grad st in OccThpy prog

515 Occupational Therapy Field Service II. 6 cr. U/G. Practical application of occupational therapy in health programs for the treatment, rehabilitation, maintenance and prevention of physical disabilities. 3 months field service. Prereq: sr or grad st in OccThpy prog

526 Topics in Pediatric Occupational Therapy: Theory and Research to Practice: (Subtitled). 3 cr. U/G. Current research which may impact on occupational therapy treatment and theory will be presented. Course content variable. May be repeated up to 3 times for cr or 9 cr. Prereq: OccThpy 326; OccThpy 426; or equiv; cons instr

541 (effective 01/24/2005) Evidence for Practice III: Creating Evidence. 3 cr. U/G. Seminar to study the research process, review of relevant research literature and use of basic research tools necessary for thesis/project development. Prereq: sr st in OccThpy & OccThpy 341(P); or grad st in OccThpy; or cons instr

541 Survey of Research in Occupational Therapy and Rehabilitation. 3 cr. U/G. Seminar to study the research process, review of relevant research literature and use of basic research tools necessary for thesis/project development. Prereq: sr st in OccThpy & OccThpy 341(P); or grad st in OccThpy; or cons instr

590 Topics in Occupational Therapy: (Subtitled). 1-3 cr. U/G. Topics of current interest in O.T. see Timetable for course offerings. May be retaken with change in topic to max of 9 cr. Prereq: jr st in OccThpy prog or cons instr

593 Introduction to Biomedical and Rehabilitation Instrumentation. 3 cr. U/G. Familiarizes students with medical instrumentation in post acute care settings. Basic electrical, electronic and mechanical terminologies. Prereq: jr st in OccThpy prog or cons instr

595 Vision I: Pathology and Functional Impairment of the Visual System. 3 cr. U/G. Introduces student to visual impairment including blindness and 'low vision'. Structure and function of the visual system and most common types of pathology. Prereq: jr st or cons instr

596 Vision II: Blindness and Low Vision. 3 cr. U/G. Functional implications of vision system pathology; focus on practical aspects of adapting to vision impairment, low vision evaluation and access to service/resources. Prereq: jr st or cons instr

610 Advances in Occupational Science. 3 cr. U/G. Explores origins and recent developments in occupational science. Examines the multidimensional nature of occupation; the dynamics of person, environment, occupation interaction; applications to practice. Prereq: sr st in Baccalaureate OccThpy prog or grad st

620 Introduction to Assistive and Rehabilitation Technology. 3 cr. U/G. Principles of assistive and rehabilitation technology application and foundation skills for professionals working with people with disabilities to evaluate products and strategies for their use. Prereq: jr st or cons instr

625 Design and Disability. 3 cr. U/G. Universal design principles/theories related to creating access for individuals with disabilities. Enables professionals to evaluate and provide recommendations for product and environment universal design. Prereq: jr st or cons instr

701 Advanced Application of Instrumentation Theory in Occupational Therapy. 3 cr. G. Reviews and critiques measurement theories underlying instruments used by therapists. Includes traditional theory and contemporary computer-based methods which diverge from classical psychometric theory. Prereq: grad st

702 Research in Occupational Therapy. 3 cr. G. Study of research design pertinent to various areas of clinical practice in occupational therapy. Development of literature review and hypothesis for project/thesis. Prereq: grad st; Occthpy 701(P); Quantitative & Qualitative Research courses or equiv; cons instr

720 Advanced Application of Occupational Therapy Theory. 3 cr. G. Critical analysis of occupational therapy theories as they relate to practice issues, strategies, and research. Prereq: grad st

730 Industrial Rehabilitation. 3 cr. G. Examines current practices and future

trends in the prevention and management of work-related disorders within the context of industry. Prereq: grad st

740 Advanced Topics in Pediatric Occupational Therapy Practice. 3 cr. G. Examines current practices and future trends for evaluation and treatment of occupational performance between birth and 21 years of age within family and community contexts. Prereq: grad st

741 (effective 01/24/2005) Research Seminar. 1 cr. G. Scholarly discussion forum for graduate students completing their thesis/project. Prereq: grad st; OccThpy 890(C) or 990(C) or cons instr

750 Computer Applications in Occupational Therapy Practice. 3 cr. G. Exploration of the current and future uses of computer technology in the field of occupational therapy. Completion of a student-designed software application. Prereq: grad st

760 Assistive and Rehabilitation Technology. 3 cr. G. Surveys the use of assistive technology devices and applications for people with motor, sensory, and cognitive impairments. Prereq: grad st; college-level computer course or equiv or cons instr

777 Fieldwork in Assistive Technology. 1-6 cr. G. Provides students with a school- or clinic-based experience in the delivery of assistive technology services. ExcEduc 777 & OccThpy 777 are jointly offered; they count as repeats of one another. May be retaken for 9 cr max. Prereq: grad st & cons instr

786 Applied Biostatistics in Ergonomics. 3 cr. G. Statistical methods used in ergonomic studies to analyze, summarize, and report measurements and data. 2 hr lec & 2 hr lab/week. Jointly offered with & counts as repeat of Nurs 786 & Ind Eng 786. Prereq: grad st; Ind Eng 580; a course in statistics or cons instr

787 Issues in Ergonomics: Epidemiology. 1 cr. G. Concepts in epidemiological studies employed to study risk factors in ergonomic research. Design considerations, strengths and weaknesses of different types of studies. Jointly offered with & counts as repeat of Nurs 787 & Ind Eng 787. Prereq: grad st; Ind Eng 580; a course in statistics or cons instr

788 Legal Issues and Regulatory Agencies in Ergonomics. 1 cr. G. Understanding of ergonomic regulations, regulatory sets, and agencies' and workers' compensations laws. Jointly offered with & counts as repeat of Nurs 788 & Ind Eng 788. Prereq: grad st; Ind Eng 580(P); a course in statistics or cons instr

790 Design Project. 2-3 cr. G. Integration and application of concepts learned in other ergonomic courses to analyze and abate ergonomic hazards in a scientific manner. Jointly offered with & counts as repeat of Nurs 790 & Ind Eng 790. Prereq: grad st; Ind Eng 780(P), 783(P), 786(P), 788(P) or cons instr

880 (890) (effective 05/23/2005) Master's Project. 1-6 cr. G. Preparation of an individual project under the supervision of the student's major advisor. Prereq: grad st; cons advisor

890 Master's Project. 1-6 cr. G. Preparation of an individual project under the supervision of the student's major advisor. Prereq: grad st; cons advisor

900 (effective 01/24/2005) Teaching, Learning and Educational Leadership in the Health Sciences. 3 cr. G. Overview of higher education in the health sciences and the responsibilities of the professoriate in fulfilling the missions of research, teaching, and service. Prereq: grad st

990 Research and Thesis. 1-6 cr. G. Production of a thesis under the supervision of the student's major professor with the consultation of the degree committee. Prereq: grad st; cons advisor

999 Advanced Independent Study. 1-3 cr. G. Supervised investigation of particular topic area either not covered by other occupational therapy courses or at a level of sopistication beyond that in a course. Prereq: grad st; cons instr

PERFORMING ARTS

Milton and Lillian Peck
School of the Arts

Degree Conferred: MFA in Performing Arts

Dance
Phone: (414) 229-2571
FAX: (414) 229-3335
Web site: www.uwm.edu/PSOA/Dance

Film
Phone: (414) 229-6015
FAX: (414) 229-5901
Web site: www.uwm.edu/PSOA/Film/

Theatre
Phone: (414) 229-4947
FAX: (414) 229-2728
Web site: www.uwm.edu/pttp

The Milton and Lillian Peck School of the Arts offers the Master of Fine Arts in Performing Arts, an interdisciplinary degree program encompassing graduate studies in film, theatre and dance. The curricula in this program include intensive professional training in an individual performance area plus significant interdisciplinary experience in related performance and scholarly fields. All curricula are dedicated to maintaining the most rigorous professional and artistic standards in their disciplines.

The programs currently offered are: film and video production in the Department of Film; choreography and performance in the Department of Dance; and the Professional Theatre Training Program in Acting, Costume Production and Technical Production, and Stage Management in the Department of Theatre.

The curricula offered in the program are designed for serious and talented students who are preparing for careers as professionals in the performing arts or as artist-teachers in advanced training programs. Admission to the programs is highly selective, and all curricula include extensive practical performance experience.

The Helene Zelazo Center for the Performing Arts is the premier performance home for the Peck School of the Arts. It includes the 759-seat Helen Bader Concert Hall, a 3,200 square foot rehearsal room, numerous small ensemble practice rooms, and the Mary L. Nohl Art Galleries. The School's other facilities include the Fine Arts Center which houses two theatres, a recital hall, and related shop, studio, instructional and practice space, and nearby Mitchell Hall with studio, viewing, and processing facilities for the Department of Film as well as the chamber dance theatre and additional rehearsal, studio, and performance spaces for the departments of Theatre and Dance.

Coordinating Committee

Corliss Phillabaum (Theatre) Coordinator
Ed Burgess (Dance)
Marcia Ruth Parsons (Dance)
Leslie Loomis Vansen (Art)
Rob Yeo (Film)

Graduate Faculty

Dance

PROFESSORS

Bronson, Ferne Caulker, B.A., University of Wisconsin-Milwaukee
Burgess, Ed, Professional Dancer and Choreographer, Chair
Parsons, Marcia Ruth, M.A., University of Illinois-Champaign/Urbana

ASSOCIATE PROFESSORS

Lilly, Janet, M.F.A., University of Michigan
Tyson, Andre, Professional Dancer and Choreographer

ASSISTANT PROFESSORS

Ferro, Simone, M.F.A., University of Iowa
Vanier, Luc, M.F.A., University of Illinios - Champaign/Urbana
Wutz, Darci, M.F.A., Smith College

Film

PROFESSORS

Blau, Richard, Ph.D., Yale University
Condit, Cecelia, M.F.A., Temple University
Kitchen, Diane, M.F.A., San Francisco Art Institute

ASSOCIATE PROFESSORS

Callahan, Vicki, Ph.D., University of California - Los Angeles
Cobb, Portia, M.A., San Francisco State University
Danielson, Rob, M.F.A., School of the Art Institute of Chicago
White, Iverson, M.F.A., University of California-Los Angeles
Yeo, Robert H., M.F.A., School of the Art Institute of Chicago, Chair

ASSISTANT PROFESSOR

Root, Meredith, M.F.A., University of Wisconsin - Milwaukee

Theatre

ASSOCIATE PROFESSORS

Basting, Anne, Ph.D., Univeristy of Minnesota - Twin Cities
Graham, Richard, B.F.A., North Carolina School of Arts
Guse, Christopher, B.F.A., University of Wisconsin - Milwaukee
Lieder, Jeffrey, M.F.A., Ohio State University
Poulson, Cynthia, B.A., Concordia College
Rehberg, Pamela, M.F.A., Northern Illinois University, Chair
Stoner, LeRoy, M.A., Indiana University, Chair, Theatre and Dance
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Master of Fine Arts in Performing Arts

Dance
Web site: www.uwm.edu/PSOA/Dance

The Department of Dance offers graduate study leading to the Master of Fine Arts in Performing Arts—Dance. The program offers opportunity to hone technical skills, to explore personal intuition, imagination, and craft both in creating dance works and also in performing them, and to focus on critical areas of dance core studies.

Graduate choreographic projects may be pursued both on and off campus. Students may arange to set works for

schools, churches, galleries, community projects, and local dance companies, and are encouraged to discover new dance environments and resources. Two on-campus dance spaces, the Fine Arts Theatre and the Mitchell Hall Chamber Dance Theatre, may be available for selected works during the year.

A block of evening course work during the fall and spring semesters, and summer graduate course offerings make the degree accessible to those whose full-time professional employment schedules require them to study at these non-traditional times.

Admission
Applicants who meet Graduate School requirements plus these program requirements may be admitted in good standing:

- Admission to the Performing Arts-Dance curriculum is by audition or by the submission of a videotape of past or current performance or choreographic work. Students may arrange for an on-campus audition by telephoning the department.

- Applicants lacking in course background may be admitted with deficiencies on the condition that deficiencies be made up; credits earned in making up deficiencies do not count toward the master's degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise studies as specified in Graduate School regulations; the student may not register for any courses without this advisor's prior approval. A student who is not assigned to an advisor at the time of admission should immediately contact the Program Director.

Credits and Courses
Minimum degree requirement in Performing Arts—Dance is 48 credits, of which at least 6 must be in complementary studies. Students may distribute the required 48 credits of course work as follows:

- Dance Techniques (modern, African, ballet, yoga), 6-14 cr.

- Creating and Performing Dance Works, 12-18 cr.

- Core Dance Studies, 12-18 cr.

- Electives in Complementary Studies, 6-14 cr.

- Final Project, 4-8 cr.

Total Required: 48 Credits

Final Project
Each student must undertake a final project of either one or two semesters duration (4-8 cr.). The project must be approved by the major advisor. The project may involve an array of challenging roles and/or production of choreographic work created by the student. These may occur in a variety of approved performance settings which may include on- or off-campus sites. The quality of performance and/or choreography will determine whether the degree is granted. This evaluation is made by the graduate faculty after the presentation of the final project. No comprehensive examination is required.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Film
Web site: www.uwm.edu/PSOA/Film

The Department of Film offers a graduate program in film and video production concentrating on individual and collaborative film and video projects. Students in the graduate program work closely with film and video faculty as well as faculty members from a complementary area of study. The curriculum is designed for serious and talented students who are preparing for careers as professionals in film and video production as artists and artist-teachers. Facilities include a complete production studio including all tools and services necessary for in-house film and video. Students are expected to originate and produce finished projects on a regular basis, culminating in a thesis presentation. A portion of graduate study includes intern study with area media-related organizations and/or enterprises in order to develop specialized skills in actual practice.

Admission
An applicant must meet Graduate School requirements and the requirements listed below to be considered for admission to the program:

- An undergraduate major in film including at least 40 studio production credits and at least 45 credits outside the major.

- Submission of original films and other media-related work demonstrating a thorough familiarity with all technical aspects of 16mm film production and creative promise.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

An applicant whose grade point average or quality of work does not meet Graduate School and program standards may be considered for admission on probation.

Transfer of Credits
An applicant who holds graduate credits in film from another institution may, upon admission and with program and Graduate School approval, be permitted to transfer to this program 40% of the total number of graduate credits required for the MFA program.

Major Professor as Advisor
The student must have a major professor to advise and supervise studies as specified in Graduate School regulations. In addition to an advisor from the Film Department Graduate Faculty, each student must select and gain consent from a faculty member representing the determined area of complementary study to advise the student on the construction of this program and its integration with the student's major course of work.

Credits and Courses
Minimum degree requirement is 48 credits, at least 12 of which must be in complementary courses. The distribution of coursework required is as follows:

12 credits in Graduate Film Studio/Seminar
12 credits in Complementary Studies (G or U/G courses)
9 credits in U/G or G Film Courses
6 credits in Professional Practice
6 credits in Graduate Thesis Studio

3 credits in Film Studies*

*Students electing the Film Studies option for complementary studies will have this course counted as one of the four necessary to complete the 12-credit complementary studies requirement. They must then increase their U/G or G Film courses by 3 credits to 12.

The student must earn at least 12 of the above credits through full-time attendance on campus in a single semester.

Thesis Presentation
Upon recommendation of the major professor and advisory faculty, the student presents a thesis exhibition program of work executed since admission to the program. The exhibition may be held either during the semester in which the student completes coursework for the degree or in the following semester.

Time Limit
The student must complete all degree requirements within seven years of the initial enrollment.

Theatre

Web site: www.uwm.edu/pttp

The Department of Theatre offers graduate study leading to a Master of Fine Arts in Performing Arts degree with curricular emphases in Acting, Costume Production, Technical Production, or Stage Management. This Professional Theatre Training Program (PTTP) involves intensive studio work and is designed to prepare a student for professional theatre employment.

THE PROFESSIONAL THEATRE TRAINING PROGRAM

I. The **Acting** curriculum is an intensive three-year conservatory training program which accepts a limited number of students. In this way, the energies of the entire Acting faculty can be devoted to the development of a small number of exceptionally talented students. Admission is highly selective and competitive. (See Admission). Students follow an integrated curriculum in which all subjects are directly related and in which no course is optional. Students in Acting are expected to acquire technical proficiency in voice, speech, movement, and theatre styles. Continuation in the program is based on successful completion of each semester's work. The curriculum emphasizes frequent public performance in a wide variety of theatrical styles and genres, with continual studio work on the development of skill leading to artistry.

II. The **Costume Production** and **Technical Production** curricula are intensive three-year conservatory training programs that accept a limited number of students. The energies of the entire faculty are devoted to the development of a small number of exceptionally talented students. Admission is highly selective. (See Admission). Students follow integrated curricula in which all subjects are directly related and in which no course is optional. Students in Costume Production acquire proficiency in pattern drafting and draping, painting and dyeing, tailoring, millinery, hair and makeup, costume crafts, and management. Students in Technical Production develop and perfect skills in drafting, properties construction, audio production, scenic painting, stage carpentry, stage electrics, and production management.

In addition, students participate in dramaturgical seminars that develop skills in research to support the frequent public performances of these programs. Continuation in these programs is based on successful completion of each semester's work. Program curricula emphasize continuous work exposing students to a wide variety of skills and theatrical techniques.

III. The **Stage Management** curriculum is an intensive three-year conservatory training program that accepts a limited number of students. The energies of the entire faculty are devoted to the development of a small number of exceptionally talented students. Admission is highly selective (See Admission). Students follow an integrated curriculum in which all subjects are directly related and no course is optional. Students in Stage Management are expected to acquire proficiency in rehearsal and performance techniques, communication skills, technical theatre skills and the ability to manage large projects. Continuation in the program is based on successful completion of each semester's work. The program curriculum emphasizes continuous production work exposing students to a wide variety of skills and stage managerial techniques.

Admission
To be considered for admission, applicants must meet Graduate School requirements plus the following program requirements:

> Admission to the Professional Theatre Training Program is by audition and/or personal interview. The auditions and personal interviews take place in a variety of cities in the United States every other year.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Credits and Courses
Minimum degree requirement is 72 credits, at least 12 of which must be in interarts work. The distribution of coursework required in the discipline areas is as follows:

Acting

Theatre, 60 credits, including:
720 Foundations
721-722 Stage Movement I
723-724 Stage Voice and Speech I
727-728 Acting Technique I
821-822 Stage Movement II
823-824 Stage Voice and Speech II
827-828 Acting Technique II
829 Rehearsal and Performance Techniques II
921-922 Stage Movement III
929 Rehearsal and Performance Techniques III
8-12 credits from 870 or 872, as approved by area faculty.
Interdisciplinary, 12 credits from approved offerings

Stage Management
Theatre, 60 credits, including:
425 Introduction to Professional Theatre Study
702 Production Coordination
710-711 Stage Management Communication Techniques I
720 Foundations
870 Seminar in Historical Foundations of Theatrical Performance
872 Seminar in Theoretical and Critical Approaches to Theatrical Performance
730-731 Stage Management Production Skills I
810-811 Stage Management Communication Techniques II
712 Career Preparation and Development
829 Rehearsal and Performance Techniques II
830-831 Stage Management Production Skills II
910-911 Stage Management Communication Techniques III
930-931 Stage Management Production Skills III
8-12 credits from 870 or 872, as approved by area faculty.
Interdisciplinary, 12 credits from approved offerings.

Technical Production
Theatre, 60 credits, including:
425 Introduction to Professional Theatre Study
702 Production Coordination
870 Seminar in Historical Foundations of Theatrical Performance
872 Seminar in Theoretical and Critical Approaches to Theatrical Performance
712 Career Preparation and Development
829 Rehearsal and Performance Techniques II
714-715 Scenery and Properties Production I
716-717 Electrics and Audio Production
718 Drafting for the Theatre
719 Painting and Design Process IB
814-815 Scenery and Properties Production II
818-819 Painting and Design Process II
914-915 Scenery and Properties Production III
916-917 Electrics and Audio Production III
918-919 Painting and Design Process III
Interdisciplinary, 12 credits from approved offerings.

Costume Production
Theatre, 60 credits, including:
425 Introduction to Professional Theatre Study
702 Production Coordination
870 Seminar in Historical Foundations of Theatrical Performance
872 Seminar in Theoretical and Critical Approaches to Theatrical Performance
712 Career Preparation and Development
829 Rehearsal and Performance Techniques II
703 Costume Construction
740 Pattern Making 1
708 Costume History 1
801 Costume Crafts 1
741 Pattern Making 2
742 Draping 1
840 Pattern Making 3
743 Draping 2
704 Costume Design
709 Costume History 2
841 Pattern Making 4
842 Draping 3
701 Costume Shop Management
843 Draping 4
901 Costume Crafts 2
804 Make-up
733 Tailoring 2
802 Applied Costume Shop Management
Interdisciplinary, 12 credits from approved offerings.

Thesis
No thesis is required.

Comprehensive Examination
No comprehensive examination is required. Evaluation will take place throughout the third year of the program by the graduate faculty of the student's discipline area.

Time Limit
The student must complete all degree requirements within six years of initial enrollment.

Courses
Dance (DANCE)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

319 Dance Service-Learning. 1-3 cr. U/G. Service-Learning as field work in a community partnership setting under supervision of Dance faculty member. Audit not Allowed. Conc reg in dance course which allows Dance 319 component by cons instr. May be retaken to max of 4 sem or 9 cr. Prereq: jr st; Dance 219(P), & cons instr

403 Intermediate Yoga For Dancers. 2 cr. U/G. A continuation of Dance 103 stressing the performance and integration of more advanced asanas. Audit not Allowed. May be retaken for total of 6 cr. Prereq: Dance 103 or cons instr

414 Dance Composition III. 2-3 cr. U/G. Investigation of advanced choreographic, musical, technical challenges in making site-specific performance work. Audit not Allowed. Prereq: jr st; Dance 412(P) & 413(P); cons instr

422 Intermediate African Dance. 2 cr. U/G. A continuation of Dance 122, stressing intermediate skills and greater social cultural nuances. Audit not Allowed. Prereq: Dance 122 or cons instr

701 Dance Composition I. 2 cr. G. An investigation of resources for discovering and inventing movement material, and for developing concepts and structures to give this material perceptual, emotional validity. Audit not Allowed. Prereq: grad st in Dance component of MFA prog; conc reg Dance 733(C)

702 Dance Composition II. 2 cr. G. A continuation of Dance 701. Audit not Allowed. Prereq: grad st; Dance 701(P), conc reg Dance 734(C)

711 Theory and Techniques of Ballet: Intermediate. 2 cr. G. Technical study of classical ballet. Audit not Allowed. May be repeated twice for cr. Prereq: grad st in Dance component of MFA prog & audition

712 Theory and Techniques of Ballet: Intermediate. 2 cr. G. A continuation of Dance 711. Audit not Allowed. May be repeated twice for cr. Prereq: grad st; Dance 711 or audition

717 Theory and Techniques of Contemporary Concert Dance: Intermediate. 2 cr. G. An intensive course designed to develop understanding of the major techniques of contemporary concert dance. Audit not Allowed. May be repeated twice for cr. Prereq: grad st in Dance component of MFA prog & audition

718 Theory and Techniques of Contemporary Concert Dance: Intermediate. 2 cr. G. A continuation of Dance 717. Audit not Allowed. May be repeated twice

for cr. Prereq: grad st; Dance 717 or audition

733 Improvisation. 1 cr. G. Techniques and structures for improvisation--the development of processes for evolving movement material from an exploration of the dynamics of inter and intra-relatinships, and environment. Audit not Allowed. Prereq: grad st in Dance component of MFA prog & conc reg in Dance 701(C)

734 Improvisation. 1 cr. G. A continuation of Dance 733. Audit not Allowed. Prereq: grad st; Dance 733(P) & conc reg in Dance 702(C)

743 Dynamic Analysis of Movement I. 2 cr. G. Exploration of personal patterning and discovery of movement sources at the body level. Incorporates material from bartenieff fundamentals, feldenkrais, and sweigard. Audit not Allowed. Prereq: grad st in dance component of mfa prog

744 Dynamic Analysis of Movement II. 2 cr. G. A continuation of Dance 743. Advanced body level work, application of bartenieff fundamentals to dance technique. Audit not Allowed. Prereq: grad st & Dance 743(P)

751 (effective 01/24/2005) Laban Movement Analysis. 2-3 cr. G. Theory and movement practice in effort/shape for use both in performance and in choreography. Audit not Allowed. Prereq: grad st in dance component of mfa prog

751 Laban Movement Analysis. 2-3 cr. G. Theory and movement practice in effort/shape for use both in performance and in choreography. Audit not Allowed. Prereq: grad st in dance component of mfa prog

761 Survey of Dance Literature and Bibliography. 3 cr. G. Lecture, research, and discussion of the major english language dance reference works, and of dance research publications. Audit not Allowed. Prereq: grad st in Dance component of MFA prog

762 Dance in Secondary Education and College. 3 cr. G. Methods and philosophy of teaching dance in the secondary school. Theory and practice in solving problems arising in practical teaching situations. Observation of dance lessons. Audit not Allowed. Prereq: grad st & admis to MFA prog in Dance

771 History of Renaissance and Baroque Dance. 3 cr. G. Lecture, discussion of readings of the periods (in translation). Emphasis also upon performing some of the period dances. Audit not Allowed. Prereq: grad st in dance component of mfa prog

772 American Concert Dance of the Twentieth Century. 3 cr. G. Graduate seminar in special topics of American concert dance of the twentieth century. Audit not Allowed. Prereq: grad st in Dance component of MFA prog

775 Valuing and Evaluation of Dance. 3 cr. G. Observing and describing dancing and choreography and shaping values. Audit not Allowed. Prereq: grad st

790 Repertoire and Ensemble. 1-3 cr. G. Practicum in group performance in dance department productions, touring groups, and performances related to the dance department. Includes original works from classical and contemporary repertoire. Audit not Allowed. May be repeated to max of 12 cr. Prereq: grad st in Dance component of MFA program

799 Independent Study. 1-3 cr. G. Individual faculty and student will define the teaching/learning contract for the semester and agree on the credit. Audit not Allowed. Prereq: grad st

801 Choreography I. 1-3 cr. G. Creating fully mounted works; choreography, performance quality, lighting decor, costumes. Audit not Allowed. Cr determined by contract with chair prior to regis. Prereq: grad st in Dance choreography track of MFA prog; Dance 701(P) & 702(P) or cons instr

802 Choreography II. 2-3 cr. G. Creating fully mounted works of greater length and complexity. Audit not Allowed. Prereq: grad st in Dance Choreography track of MFA prog; Dance 701(P), 702(P), 801(P), or cons instr

861 Research Methodology for Dance. 3 cr. G. Lecture, formulation of research proposal, research and write-up of a dance research problem. Audit not Allowed. Prereq: grad st & admis to dance component of mfa prog

871 Applied Anatomy for Dance. 2 or 3 cr. G. Study of human bony and neuromuscular structures in theory and movement. Lec only for 2 cr; lec & lab for 3 cr. Audit not Allowed. Prereq: grad st in dance component of MFA prog; Dance 711(P) & 717(P) or cons instr

873 Field History: Contemporary Dance Festivals. 2-4 cr. G. Research, reading, attendance and documentation on selected festivals/series events. Prestudy of choreography/performance style, background, influences, artistic themes. Group discussions and evaluations. Audit not Allowed. May be repeated with permission to max of 9 cr. Prereq: grad st in Dance component of MFA prog

880 Developing Performance Quality. 1-3 cr. G. Studies in dynamics of specific choreography. Audit not Allowed. Cr determined prior to regis. May be repeated for up to 6 cr. Prereq: grad st in MFA performance component of dance prog; Dance 711 & 717 or cons instr

889 Special Workshops. (Subtitled). 1-3 cr. G. Special short intensive workshops of 1-4 weeks during inter-terms or summer sessions presented by guest artists. May be retaken to 9 cr max. Prereq: grad st in MFA component of dance prog or cons instr

890 Repertoire and Ensemble. 1-3 cr. G. Practicum in major roles and productions of the department or related to the department. Audit not Allowed. May be repeated to max of 6 cr. Prereq: grad st; admis to performance track of dance mfa curric; cons chair

990 Dance Final Thesis/Project. 2-4 cr. G. Final demonstration of craft and artistry mastered in program, when completion approved by project committee. Audit not Allowed. May be repeated to max of 8 cr. Prereq: grad st; cons dept chair

Film (FILM)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

420 Intermediate Film/Video Module: (Subtitled). 3 cr. U/G. Intermediate level course in specialized skills such as video editing, directing, post-production sound and multimedia production. May be re-

taken with change in topic to max of 9 cr. Prereq: admis to upper level course per portfolio review; jr st or cons instr. In case of over-enrollment, admission based on grade point average in major

450 Film Practice. 1-6 cr. U/G. This course is project-oriented. It allows the student to engage in professional internships, to develop film series, to work in film cooperatives, etc. May be retaken to max of 9 cr. Prereq: admis to upper-level Film classes per portfolio review, cons instr

455 Integrated Film/Video Exploration. 6 cr. U/G. A study of the relationship between film/video production and film/video analysis, team taught by an artist and a critic. Jointly offered with ArtHist/English/JMC 310. Prereq: jr st. Film majors: portfolio review and/or cons instr; non-film majors: cons instr

460 Advanced Film/Video Module: (Subtitled). 3 cr. U/G. Advanced level course in specialized skills such as non-linear editing, lighting, film post-production, sound post-production and multimedia production. May be retaken with change of topic to max of 9 cr. Prereq: admis to upper level course per portfolio review; jr st or cons instr. In case of over-enrollment, admission based on grade point average in major

470 Advanced Video Workshop. (Subtitled). 1-6 cr. U/G. Emphasis on individual projects exploring portable and studio video production techniques. Students to submit production proposals for faculty approval. May be retaken to max of 6 cr. Prereq: jr st; admis to upper-level film classes per portfolio review, Film 389(P) with cons instr; or grad st

700 Professional Practice: Production. 3 cr. G. Professional production internship with area film-related enterprise to develop specialized technical skills or practical experience in film exhibition. May be repeated to max of 6 cr. Prereq: grad st & cons advising faculty member

710 Graduate Film Studio/Seminar I. 3 cr. G. Each student to pursue a film production project to completion. Lectures and readings in seminar format to address issues facing independent film production and distribution. Prereq: grad st

712 Graduate Film Studio/Seminar II. 3 cr. G. Faculty advised film production studio course. Instruction in advanced production skills and directed reading relevant to the nature of proposed film projects. Prereq: grad st

714 Graduate Film Studio/Seminar III. 3 cr. G. Faculty advised film production studio course to introduce and familiarize students with specific crew member responsibilities of collaborative filmmaking. Prereq: grad st

720 Graduate Film/Video Workshop I. 1-6 cr. G. Seminar/open studio focusing on conceptualization and production of student-initiated film/video projects. Each student will submit a project proposal to the instructor. This will be accompanied by a shooting schedule and reading list. May be retaken to max of 9 cr. Prereq: grad st film or cons instr

722 Graduate Film/Video Workshop II. 1-6 cr. G. Seminar/open studio. Continuation of Film 720. May be retaken to max of 9 cr. Prereq: Film 720

730 Advanced Research in Film I. 3 cr. G. Faculty advised, pre-production research leading to the completion of a shooting script and production schedule for the thesis film project. Prereq: grad st; two of the following: Film 710, 712 & 714

732 Advanced Research in Film II. 3-6 cr. G. Independent study with selected faculty member adviser for the production and post-production phase of the thesis film project. Students needing 3 cr enroll for Film 732-3, students needing 6 cr enroll for Film 732-6. May be retaken to max of 6 cr. Prereq: grad st; Film 710(P), 712(P), 714(P), 730(P)

760 Film/Video Module: Post-Production Sound. 3 cr. G. Course in sound post-production for the media arts. Prereq: grad st; cons instr

799 Independent Graduate Study. (Subtitled). 1-6 cr. G. Variable content. Supervised independent study, production and non-production for the grad student in film/video. May be repeated to max of 9 cr. Prereq: grad st; cons instr

Cross-listed Courses - Film

English 329 (Film and the Novel.) 3 cr, U/G.

English 380 (Media and Society: Subtitle.) 3 cr, U/G.

English 383 (Cinema and Genre: Subtitle.) 3 cr, U/G.

English 380 (Classical Film Criticism and Theory.) 3 cr, U/G.

English 395 (Feminist Film Criticism and Theory.) 3 cr, U/G.

English 877 (Seminar in Film Theory: Subtitle.) 3 cr, G.

Courses

Theatre PTTP (THRPTTP)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

425 Introduction to Professional Theatre Study. (Subtitled). 1 cr. U/G. An introduction to the aesthetic philosophy and training procedures of the UWM department of Theatre and Dance. May be repeated with change in topic to max of 2 cr. Prereq: regis in Prof TheatreTraining Prog or design for performance major; writ cons dept chair

685 Internship in Professional Theatre. 1-6 cr. U/G. Engagement with a professional Theatre in individual discipline area. May be repeated to max of 12 cr. Prereq: jr st & writ cons dept chair

691 Independent Study-Acting. 1-6 cr. U/G. Individual program of supervised study in acting. May be retaken to max of 9 cr. Prereq: jr st, writ cons instr

692 Independent Study-Technical Theatre, Scene Design and Lighting. 1-6 cr. U/G. Individual program of supervised study in technical theatre, scene design, and lighting. May be retaken to max of 9 cr. Prereq: jr st, writ cons instr

693 Independent Study-Costumes. 1-6 cr. U/G. Individual program of supervised study in costumes. May be retaken to max of 9 cr. Prereq: jr st, writ cons instr

695 Independent Study-History, Literature, and Criticism. 1-6 cr. U/G. Individual program of supervised study in history, literature, and criticism. May be retaken to max of 9 cr. Prereq: jr st, writ cons instr

699 Independent Study: (Subtitled). 1-6 cr. U/G. Individual program of supervised study in the student's area of emphasis. May be retaken to max of 9 cr. Prereq: jr st; cons instr

701 Costume Shop Management. 2 cr. G. Management principles of professional theatrical costume shop. Emphasis on budget planning, purchasing, hiring, and managing. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

702 Production Coordination. 1 cr. G. Development of effective communication between stage management, costume production and technical production. May be retaken to max of 6 sem. Prereq: grad st; regis in Prof Theatre training prog; writ cons dept chair

703 Costume Construction. 1 cr. G. Mechanics and technology of art of costuming. All aspects of costumer's craft surveyed including practical work in shop. Prereq: grad st; reg in professional theatre training prog

704 Costume Design. 1 cr. G. Designing the play and understanding the basic principles of costume design. Rendering technique, color theory and the elements of design are covered. Prereq: grad st; regis in Professional Theatre training prog; writ cons dept chair

708 Costume History I. 1 cr. G. History of costumes from 1670 to present. Emphasis on social and cultural changes in dress and behavior. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

709 Costume History II. 1 cr. G. Study of costumes from 1670 to present. Emphasis on social and cultural changes in dress and behavior. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

710 Stage Management Communication Techniques: IA. 1 cr. G. Development of written and verbal skills related to stage management. Emphasizes effectiveness in all facets of production. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

711 Stage Management Communication Techniques: IB. 1 cr. G. Further development of written and verbal communication related to stage management. Emphasizes effectiveness in all facets of production. Prereq: grad st; Theatre 710; regis in professional theatre training prog; writ cons dept chair

712 (effective 01/24/2005) Career Preparation and Development. 0-1 cr. G. Development of portfolio and interview techniques in preparation for careers in stage management, costume production or technical production. May be retaken to max of 6 sem for max of 4 cr. Prereq: grad st; regis in Prof Theatre training prog; writ cons dept chair

712 Career Preparation and Development. 0-1 cr. G. Development of portfolio and interview techniques in preparation for careers in stage management, costume production or technical production. May be retaken to max of 6 sem for max of 4 cr. Prereq: grad st; regis in Prof Theatre training prog; writ cons dept chair

714 Scenery and Properties Production: IA. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking, and plastic fabrication. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

715 Scenery And Properties Production: IB. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking, and plastic fabrication. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

716 Electrics and Audio Production: IA. 1 cr. G. Development of skills for producing lighting and sound for theatre including electrical theory, wiring, and control, sound editing and reproduction. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

717 Electrics and Audio Production: IB. 1 cr. G. Development of skills for producing lighting and sound for theatre including electrical theory, wiring and control, sound editing, and reproduction. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

718 Drafting for the Theatre. 1 cr. G. Development of skills in graphic communication for construction of stage scenery, rigging, and lighting. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

719 Painting And Design Process: IB. 1 cr. G. Development of skills in painting techniques for scenery and properties, theory of scenic, property, sound, and lighting design and design process. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

720 Foundations. 1 cr. G. Exercises from various disciplines to stretch, energize, and prepare for the day's work in acting and production. May be retaken to max of 6 cr. Prereq: regis in Prof Theatre training prog; writ cons dept chair

721 Stage Movement IA. 2 cr. G. Exercises and assignments to develop alignment, strength, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: regis in professional theatre training prog; writ cons dept chair

722 Stage Movement IB. 2 cr. G. Continuation of exercises and assignments to strengthen the actor's alignment, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: Theatre 721(P); regis in professional theatre training prog; writ cons dept chair

723 Stage Voice and Speech I-A. 2 cr. G. Basic breath control and tone production, ear training and phonetics, to develop strength, control, flexibility, and awareness. Prereq: regis in professional theatre training prog; writ cons dept chair

724 Stage Voice snd Speech I-B. 2 cr. G. Continuation of Theatre 723. Prereq: Theatre 723(P); regis in professional theatre training prog; writ cons dept chair

727 Acting Technique IA. 1-3 cr. G. Development of expressiveness through mastery of basic skills. Emphasis on pantomime, concentration, awareness, and the expressive use of self. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

728 Acting Technique IB. 1-3 cr. G. Further development of expressiveness through mastery of basic skills and the expressive use of self, culminating in pro-

duction projects. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

729 Rehearsal and Performance Techniques I. 1-6 cr. G. Practical instruction and assignments in the preparation, rehearsal, and performance of theatrical productions. May be repeated to max of 9 cr. Prereq: grad st; regis in Prof Theatre training prog; writ cons dept chair

730 Stage Management Production Skills: IA. 2 cr. G. Development of skills in the process of organizing and running theatrical productions from inception through rehearsals and performance. Prereq: grad st; regis in Prof Theatre training prog; writ cons dept chair

731 Stage Management Production Skills: IB. 2 cr. G. Further development of skills in the process or organizing and running theatrical productions from inception through rehearsals and performance. Prereq: grad st; Theatre 730; regis in professional theatre training prog; writ cons dept chair

732 Tailoring I. 2 cr. G. Construction of costumes: intermediate and advanced dressmaking and tailoring techniques, textiles, cutting, fitting, and alterations. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

733 Tailoring II. 2 cr. G. Construction of costumes: advanced tailoring techniques, practical application of classwork in costume shop. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

740 Pattern Making I. 1 cr. G. Basic patternmaking. Includes drafting of basic slopers, sleeves, collars, pants, etc. Emphasis on theatrical costumes. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

741 Pattern Making II. 1 cr. G. Advanced pattern making of period patterns, coats, suits, and menswear for the theatre. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

742 Draping I. 1 cr. G. Advanced study in construction of stage costumes with an emphasis on draping. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

743 Draping II. 1 cr. G. Emphasis on advanced draping problems with detailed period and contemporary costumes. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

761 Physical Analysis I-A. 1 cr. G. Analysis and training to improve body awareness. Focus on body alignment, levels of tension and relaxation. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

762 Physical Analysis I-B. 1 cr. G. Continued analysis and training to improve body awareness. Focus on habitual postures and gestures. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

763 Text Analysis I-A. 1 cr. G. Development of analytical skills for the interpretation of texts as applied to acting. Focuses on twentieth century american realism. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

764 Text Analysis I-B. 1 cr. G. Continued development of analytical skills for interpretation of texts as applied to acting. Focuses on the work of shakespeare. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

765 Verse and Language I-A. 1 cr. G. Training actors in background and speaking of classical texts with concentration on metrication, sense versus metric stress, and the structure of a shakespearean sonnet. Prereq: grad st; reg in professional theatre prog; writ cons dept chair

766 Verse and Language I-B. 1 cr. G. Continued training in background and speaking of classical texts, concentration on the international phonetic association (ipa) alphabet, contextual and historical assimilation and considerations of connected speech. Prereq: grad st; regis in professional theatre training prog & writ cons dept chair

801 Costume Crafts I. 1 cr. G. Study and practical work in costume accessory construction with an emphasis on millinery and hat blocking. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

802 Applied Costume Shop Management. 3 cr. G. Management principles of professional theatrical costume shop. Emphasis on working with designers and other departments. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

804 Makeup. 1 cr. G. Study and practical work in stage makeup. Emphasis on materials, affects of light, color and character analysis. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

807 Sewing Skills for Theatre Production. 1 cr. G. Development of skills related to sewing of theatrical properties, soft goods and draperies. May be repeated to max of 6 cr. Prereq: grad st; regis in prof theatre training prog; writ con instr

810 Stage Management Communication Techniques: IIA. 1 cr. G. Development of written and verbal communication related to stage management. Emphasizes effectiveness in all facets of production. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

811 Stage Management Communication Techniques: IIB. 1 cr. G. Further development of written and verbal communication related to stage management. Emphasizes effectiveness in all facets of production. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

814 Scenery and Properties Production: IIA. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking and plastic fabrication. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

815 Scenery and Properties Production: IIB. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking and plastic fabrication. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

816 Electrics and Audio Production: IIA. 1 cr. G. Development of skills necessary for producing lighting and sound for theatre including electrical theory, wiring and control, sound editing and reproduction. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

817 Electrics and Audio Production: IIB. 1 cr. G. Development of skills necessary for producing lighting and sound for theatre including electrical theory, wiring

and control, sound editing, and reproduction. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

818 Painting and Design Process: IIA. 1 cr. G. Development of skills in painting techniques for scenery and properties, theory of scenic, property, sound, and lighting design and design process. Prereq: reg in professional theatre training prog; writ cons dept chair

819 Painting and Design Process: IIB. 1 cr. G. Development of skills in painting techniques for scenery and properties, theory of scenic, property, sound, and lighting design and design process. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

821 Stage Movement IIA. 1 cr. G. Exercises and assignments to develop alignment, strength, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

822 Stage Movement IIB. 1 cr. G. A continuation of exercises and assignments to strengthen the actors' alignment, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: grad st; Theatre 721(P), regis in prof theatre training prog; writ cons dept chair

823 Stage Voice and Speech II-A. 2 cr. G. Continuation of theatre 724 with an emphasis on range extension and the development of greater variety in expressiveness. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

824 Stage Voice and Speech II-B. 2 cr. G. Continuation of Theatre 823. Prereq: grad st; Theatre 723(P); regis in prof theatre training prog; writ cons dept chair

827 Acting Technique II-A. 1-3 cr. G. Scene study. Emphasis on classical plays and styles. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

828 Acting Technique II-B. 1-3 cr. G. More scene study of classical plays and styles. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

829 (effective 01/24/2005) Rehearsal and Performance Techniques II. 1-6 cr. G. Practical instruction and intermediate assignments in the preparation, rehearsal, and performance of theatrical productions. May be repeated to max of 9 cr. Prereq: grad st; regis in Prof Theatre training prog & writ cons dept chair

829 Rehearsal and Performance Techniques II. 1-6 cr. G. Practical instruction and intermediate assignments in the preparation, rehearsal, and performance of theatrical productions. May be repeated to max of 9 cr. Prereq: grad st; regis in Prof Theatre training prog & writ cons dept chair

830 Stage Management Production Skills: IIA. 3 cr. G. Development of skills in the process of organizing and running theatrical productions from inception through rehearsals and performance. Prereq: grad st; Theatre 731, reg in professional theatre training prog; writ cons dept chair

831 Stage Management Production Skills: IIB. 1 cr. G. Further development of skills in the process of organizing and running theatrical productions from inception through rehearsals and performance. Prereq: grad st; Theatre 830; regis in prof theatre training prog, writ cons dept cons

840 Pattern Making III. 2 cr. G. Continuation of pattern making II. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

841 Pattern Making IV. 2 cr. G. Continuation of pattern making III. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

842 Draping III. 1 cr. G. Continuation of draping II. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

843 Draping IV. 1 cr. G. Continuation of draping III. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

861 Physical Analysis II-A. 1 cr. G. Continued analysis and training to improve body awareness. Focus on the integration of facial expression with posture and gesture. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

862 Physical Analysis II-B. 1 cr. G. Continued analysis and training to improve body awareness. Focus on breath patterns and their accompanying emotional states. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

863 Text Analysis II-A. 1 cr. G. Continued development of analytical skills for interpretation of texts as applied to acting. Focuses on the plays of anton chekhov. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

864 Text Analysis II-B. 1 cr. G. Continued development of analytical skills for interpretation of texts as they apply to acting. Focuses on non-realistic and innovative texts. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

865 Verse and Language II-A. 1 cr. G. Continued training in background and speaking of classical texts with concentration on imagery in lyric and dramatic verse. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

866 Verse and Language II-B. 1 cr. G. Continued training in background and speaking of classical texts with concentration on shakespeare's plays, greek messenger speeches, and other heightened forms of poetic drama. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

870 Seminar in Historical Foundations of Theatrical Performance: (Subtitled). 2-3 cr. G. Discussion and research in a specific area of the history of theatrical performance. May be repeated with change of topic to max of 9 cr. Prereq: grad Theatre major

872 Seminar in Theoretical and Critical Approaches to Theatrical Performance: (Subtitled). 2-3 cr. G. Discussion and research in a specific area of performance theory and criticism. May be repeated with change of topic to max of 9 cr. Prereq: grad Theatre major

901 Costume Crafts II. 2 cr. G. Advanced projects in costume accessory construction with an emphasis on mask and jewelry making for stage purposes. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

910 Stage Management Communication Techniques: IIIA. 2 cr. G. Development of written and verbal communication related to stage management. Emphasizes effectiveness in all facets of produc-

tion. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

911 Stage Management Communication Techniques: IIIB. 1 cr. G. Further development of written and verbal communication related to stage management. Emphasizes effectiveness in all facets of production. Prereq: grad st; Theatre 910; regis in professional theatre training prog; writ cons dept chair

914 Scenery and Properties Production: IIIA. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking, and plastic fabrication. Prereq: reg in Professional Theatre training prog; writ cons dept chair

915 Scenery and Properties Production: IIIB. 1 cr. G. Development of skills necessary for construction of scenery and properties including woodworking, metalworking, and plastic fabrication. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

916 Electrics and Audio Production: IIIA. 1 cr. G. Development of skills necessary for producing lighting and sound for theatre including electrical theory, wiring and control, sound editing, and reproduction. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

917 Electrics and Audio Production: IIIB. 1 cr. G. Development of skills necessary for producing lighting and sound for theatre including electrical theory, wiring and control, sound editing, and reproduction. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

918 Painting and Design Process: IIIA. 1 cr. G. Development of skills in painting techniques for scenery and properties, theory of scenic, property, sound, and lighting design and design process. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

919 Painting and Design Process: IIIB. 1 cr. G. Development of skills in painting techniques for scenery and properties, theory of scenic, property, sound, and lighting design and design process. Prereq: grad st; regis in professional theatre training prog; writ cons dept chair

921 Stage Movement IIIA. 1 cr. G. Exercises and assignments to develop alignment, strength, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

922 Stage Movement IIIB. 1 cr. G. A continuation of exercises and assignments to strengthen the actors' alignment, flexibility, control, awareness, endurance, rhythmic sensitivity, balance, and expressiveness. Prereq: grad st; Theatre 721; regis in professional theatre training prog; writ cons dept chair

923 Voice Development IIIA. 1 cr. G. Basic breath control and tone production to develop strength, control, flexibility, and awareness. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

924 Voice Development IIIB. 1 cr. G. Advanced techniques of breath control and tone production to develop the students' strength, control, flexibility and awareness. Prereq: grad st; Theatre 723; regis in professional theatre training prog; writ cons dept chair

925 Speech for the Theatre IIIA. 1 cr. G. Ear training and phonetics. Corrective work on individual regional speech habits. Prereq: grad st; reg in professional theatre training prog; writ cons dept chair

926 Speech for the Theatre IIIB. 1 cr. G. Advanced techniques in ear training and phonetics. Prereq: grad st; Theatre 725; regis in the professional theatre training prog; writ cons dept chair

927 Acting Technique IIIA. 3 cr. G. Scene study. Emphasis on classical plays and styles. Prereq: Theatre 828 or cons instr

928 Acting Technique IIIB. 3 cr. G. More scene study of classical plays and styles. Prereq: grad st; Theatre 828

929 Rehearsal And Performance Techniques III. 1-6 cr. G. Practical instruction and advanced assignments in the preparation, rehearsal, and performance of theatrical productions. May be repeated to max of 9 cr. Prereq: grad st; regis in prof theatre training prog; writ cons dept chair

930 Stage Management Production Skills: IIIA. 2 cr. G. Development of skills in the process of organizing and running theatrical productions for inception through rehearsals and performance. Prereq: grad st; reg in Professional Theatre training prog; writ cons dept chair

931 Stage Management Production Skills: IIIB. 2 cr. G. Further development of skills in the process of organizing and running theatrical productions from inception through rehearsals and performance. Prereq: grad st; Theatre 930; regis in professional theatre training prog; writ cons dept chair

PHILOSOPHY

College of Letters and Science

Degree Conferred: MA in Philosophy
Phone: (414) 229-4719
FAX: (414) 229-5022
E-mail: philosophy@uwm.edu
Web site: www.uwm.edu/Dept/Philosophy

The Department of Philosophy offers a program of graduate study leading to the degree of Master of Arts. The general purpose of this program is to provide students with the background and stimulus for critical and original philosophical thoughts. The program is designed to serve both those students who wish to pursue a Doctor of Philosophy degree in philosophy and those students who wish either to terminate their formal philosophical studies with the Master of Arts degree or to integrate a graduate level of study in philosophy with graduate studies in other academic areas.

Graduate Faculty

DISTINGUISHED PROFESSOR

Koethe, John L., Ph.D., Harvard University

PROFESSORS

Atherton, Margaret L., Ph.D., Brandeis University, Chair
Gendron, Bernard L., Ph.D., University of Notre Dame
Leeds, Stephen, Ph.D., Massachusetts Institute of Technology
Mondadori, Fabrizio, Ph.D., Harvard University
Schwartz, Robert, Ph.D., University of Pennsylvania
Sensat, Julius O., Ph.D., University of Texas - Austin

ASSOCIATE PROFESSORS

Bagnoli, Carla, Ph.D., University of Milan
Hawi, Sami S., Ph.D., State University of New York at Buffalo
Liston, Michael, Ph.D., University of California-San Diego
Neevel, Walter G., Ph.D., Harvard University

ASSISTANT PROFESSORS

Ferrero, Luca, Ph.D., Harvard University
Hinchman, Edward, Ph.D., University of Michigan
Tierney, Richard, Ph.D., Columbia University
Westlund, Andrea, Ph.D., University of Michigan

Master of Arts in Philosophy

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate major in philosophy or other academic background judged suitable by the Department.
- Submission of scores on the General Test of the Graduate Record Examination.
- Three letters of recommendation concerning academic qualifications.
- A sample of written work is recommended but not required.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. At time of admission, the student's program will be supervised by the Graduate Advisor.

A student planning to work beyond the master's program should select, in consultation with the advisor, courses which will develop broad philosophical competence. A student intending to terminate studies with the master's degree may plan a more specialized program.

Advisory Committee
During the first year in attendance, the student chooses an advisor and an advisory committee of three faculty members. The student's advisor serves as chair of this committee. The choice of committee is made in consultation with the student's advisor, and submitted to the Department's Graduate Studies Committee for approval. No later than the second week of the student's second semester in the program, the advisory committee meets with the student to discuss the individual's background in philosophy and goals in this program. By the end of the student's second semester the committee has conferred with the student's instructors and meets with the student to discuss that individual's progress in the program. At that time the student, together with the committee, plans the balance of the student's work in the program and how all requirements can best be met. The committee continues to gather information on the student's class work from the instructors, and at least once each semester meets with the student to discuss the student's continuing progress, future plans in the program and the meeting of departmental requirements. The student may at any time petition the Graduate Studies Committee for a change in the composition of the advisory committee.

History Requirement
Students taking Option A or B will be required to demonstrate competence in history of philosophy by passing 430 and 432 with a grade of B or better. The Graduate Studies Committee may certify competence if the student has as an undergraduate taken 430 and 432 at UWM within the past five years or has taken their equivalent as determined by the Committee. The determination may include an equivalency exam. Students selecting the language and linguistics concentration need only meet the requirement for 432.

Logic Requirement
The student is required to demonstrate competence in logic by passing 511 or 712 with a grade of B or better. The Graduate Committee may certify competence if within the last five years the student has taken 511 or 712 or has taken

an equivalent course as determined by the Committee. The determination may include an equivalency exam.

Degree Alternatives
The Department of Philosophy offers three alternatives by which the Master of Arts degree in philosophy may be obtained: Option A, the non-thesis option; Option B, the thesis option; and a language and linguistics concentration with a thesis. There is no foreign language requirement for the completion of the Master of Arts degree in philosophy, though students are encouraged to develop proficiency in a foreign or classical language.

Option A: Non-thesis Option (30 Credits Plus Exam)

Credits and Courses
Minimum degree requirement is 30 credits in coursework, 21 of which must normally be in philosophy, 9 of which may be in related fields. All 30 credits must be earned with grades of B or better; and at least 12 must be in graduate seminars. (The Philosophy Department Graduate Studies Committee may permit students to count Philosophy 681 or 685 toward meeting this requirement, when the content and level of difficulty are equivalent to that of a graduate seminar).

A student proposing a program of study involving more than 9 credits of independent study, or fewer than 21 credits in philosophy courses, must gain specific approval of the student's advisory committee.

Every student choosing the non-thesis option takes a written exam of no longer than four hours on a philosophical area chosen by the student in consultation with the advisory committee. At least one full semester before the student is to take this exam, a specific list of primary and secondary sources to be covered on the exam is drawn up by the committee together with the student. The committee provides the student with sample questions.

Thesis
Not required.

Time Limit
This program is designed to be completed in two years of full-time attendance. However, all degree requirements must be completed within five years of initial enrollment.

Option B: Thesis Option (30 Credits Plus Defense)

Credits and Courses
Minimum degree requirement is 30 credits, including the writing of a thesis, plus its defense. Of the 30 required credits, 21 credits must normally be in philosophy, and 9 may be in related fields. All 30 credits must be earned with a grade of B or better, and at least 12 credits must be in graduate seminars. (The Philosophy Department Graduate Studies Committee may permit students to count Philosophy 681 or 685 toward meeting this requirement, when the content and level of difficulty are equivalent to that of a graduate seminar.) A student proposing a program of study involving more than 9 credits of independent study, or fewer than 21 credits in philosophy courses, must gain specific approval of the student's advisory committee.

The thesis is to be written on a philosophical subject chosen in consultation with the student's advisory committee. The student and the committee are to meet sufficiently often so that the committee may adequately supervise the writing of the thesis. Upon completion of the thesis the student is required to defend the thesis orally.

Thesis
Required (as above).

Time Limit
This program is designed to be completed in two years of full-time attendance. However, all degree requirements must be completed within five years of initial enrollment.

Language and Linguistics Concentration with Thesis (30 credits Plus Defense)

Credits and Courses
Linguistics 464 or an equivalent is a prerequisite. Minimum degree requirement is 30 credits, including the writing of a thesis, plus its defense. Of the 30 credits at least 18 credits must be in philosophy with the remainder in linguistics. Philosophy 516 and Linguistics 466 and 564 are required, unless the student has taken these courses at UWM within the past five years or has taken their equivalent as determined by the Graduate Studies Committee. All 30 credits must be earned with a grade of B or better and at least 6 credits must be in graduate philosophy seminars. (The Philosophy Department Graduate Studies Committee may permit students to count Philosophy 681 or 685 towards meeting this requirement, when the content and level of difficulty are equivalent to that of a graduate seminar.) A student proposing a program of study involving more than 9 credits of independent study, must gain specific approval of the student's advisory committee.

The thesis is to be written on a language related subject chosen in consultation with the student's advisory committee. The student and the committee are to meet sufficiently often so that the committee may adequately supervise the writing of the thesis. Upon completion of the thesis the student is required to defend the thesis orally.

Thesis
Required (as above); Philosophy 990 may be taken only once.

Time Limit
This program is designed to be completed in two years of full-time attendance. However, all degree requirements must be completed within five years of initial enrollment.

Courses
Philosophy (PHILOS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

303 Theory of Knowledge. 3 cr. U/G. Study of the nature, source, and limits of our knowledge of the world of experience and of necessary truth. Prereq: jr st; Philos 101(P), 201(P), or 215(P)

317 Metaphysics. 3 cr. U/G. Study of perennial philosophical issues about the nature of the world and our relation to it;

realism, idealism, causality, the mind-body problem, time, truth. Prereq: jr st & 3 cr in philos

324 Philosophy of Science. 3 cr. U/G. Study of traditional and recent views about the nature, aim and ways of evaluating scientific theories, with reference to both the natural and social sciences. Prereq: jr st & 3 cr in philos

335 Philosophy of Biology. 3 cr. U/G. Philosophical study of topics in the biological sciences, such as evolutionary explanations, genetic determinism, the definition of life, what constitutes a biological individual. Prereq: jr st; 3 cr in philos

341 Modern Ethical Theories. 3 cr. U/G. Ethical theories and problems as discussed in the late nineteenth and twentieth centuries. Prereq: jr st & 3 cr in philos

349 Great Moral Philosophers. 3 cr. U/G. Major themes of moral philosophy from Plato and Aristotle to Bentham and Mill, with critical study of the outstanding works. Prereq: jr st & 3 cr in philos

350 Introduction to the Comparative Study of Religion. 3 cr. U/G. Analysis of the nature of religion, of various comparative typological classifications and methodological approaches; basic problems in understanding the varieties of religious experience and expression. Satisfies L&S International req. Prereq: jr st; Philos 204(P), Philos/Hist/Hebr St 275(P) or Anthro 203(P)

351 Philosophy of Mind. 3 cr. U/G. Critical study of the nature of mind and its relation to body and matter, with emphasis on recent advances in philosophy and psychology. Prereq: jr st & 3 cr in philos

355 Political Philosophy. 3 cr. U/G. Philosophical doctrines involved in justification of political decisions; analysis of fundamental concepts such as the common good, authority, justice, natural law, and natural rights. Prereq: jr st; Philos 242(P) or a course in ethics

358 Action, Will, and Freedom. 3 cr. U/G. The nature of the will, agency, intentional action, and the problem of free will and determinism. Prereq: jr st, 3 cr philos; or grad st

384 (560) The Philosophy of Law. 3 cr. U/G. The idea of law and its relationship to morality. Issues of legal obligation, rights, responsibility, and punishment. Philos 384 & Pol Sci 384 are jointly offered; they count as repeats of one another. Prereq: jr st; 3 cr philos or previous course in political theory or law studies recom

430 History of Ancient Philosophy. 3 cr. U/G. From the pre-Socratics to Augustine. Particular emphasis on Plato and Aristotle. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

431 History of Medieval Philosophy. 3 cr. U/G. Critical and historical examination of writings of medieval philosophers such as Augustine, Anselm, Aquinas, Duns Sootus, Ockham, Al Farabi, Maimonides. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

432 History of Modern Philosophy. 3 cr. U/G. From Descartes through Kant. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

433 Nineteenth-Century Philosophers. 3 cr. U/G. Hegel, Schopenhauer, Marx, Kierkegaard, Nietzsche, and others. The conflict of idealistic, materialistic, and irrationalist philosophies of the nineteenth century and their influence on its social, literary, and religious movements. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

434 Survey of Contemporary Philosophy. 3 cr. U/G. Comparison of problems and solutions dealt with by currently active movements and philosophers, including Carnap, Croce, Dewey, Heidegger, Husserl, Moore, Russell, Sartre, and Wittgenstein. Prereq: jr st; 3 cr in philos

435 Existentialism. 3 cr. U/G. Analysis of existentialist thinkers such as Kierkegaard, Nietzsche, Heidegger, Sartre, and Merleau-Ponty. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

437 Phenomenology. 3 cr. U/G. Husserl's phenomenological method and its impact on recent continental philosophy, e.g. Heidegger, Sartre, Merleau-Ponty. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

438 Problems in Marxism. 3 cr. U/G. A systematic study of classical works in Marxism and of issues involved in the attempt to apply Marxist concepts and theories to present-day society. Satisfies L&S International req. Prereq: jr st & 3 cr in philos or econ

450 Plato. 3 cr. U/G. Intensive study of one or more of Plato's dialogues, or of major themes and problems in Plato's thought. Particular attention given to the careful analysis of the texts. Satisfies L&S International req. Prereq: jr st & 3 cr in philos; Philos 430(R)

451 Aristotle. 3 cr. U/G. Intensive study of one or more of Aristotle's major works, or of themes and problems in Aristotle's thought. Particular attention given to the careful analysis of the texts. Satisfies L&S International req. Prereq: jr st & 3 cr in philos; Philos 430(R)

452 Special Topics in Ancient and Medieval Philosophy: (Subtitled). 3 cr. U/G. Intensive study of a philosopher or movement or historical problem, e.g. the Pre-Socratics, Hellenistic Philosophy, Aristotle's thought in medieval Europe, Islamic and Jewish philosophy. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; 3 cr in philos; Philos 430(R) or 431(R)

453 Special Topics in the History of Modern Philosophy: (Subtitled). 3 cr. U/G. Intensive study of a philosopher or movement or historical problem, e.g. Spinoza, the British empiricists, Locke's influence upon the Enlightenment, the overthrow of Hegelian idealism. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; 3 cr in philos; Philos 432(R)

455 Recent Philosophy: (Subtitled). 3 cr. U/G. Intensive study of one or more philosophers or philosophical movements of the recent past. Retakable w/chg in topic to 9 cr max. Prereq: jr st & 3 cr in philos

461 Islamic Philosophy and Mysticism. 3 cr. U/G. Problems central to Islamic theology, philosophy, and mysticism, and their relations to the teachings of Islam. Satisfies L&S International req. Prereq: jr st & 3 cr in philos

470 Religious Thought in Classical India. 3 cr. U/G. A historical introduction to the major classical Indian religious traditions and schools of thought, stressing interaction between the Vedanta tradition and the major Buddhist schools. Satisifies L&S International req. Prereq: jr st; 3 cr philos; Philos 204(R)

471 Religious Thought in Modern India. 3 cr. U/G. The thought of the dominating figures of India's cultural and religious development in the nineteen and twentieth centuries. e.g., Gandhi, Tagore, Radhakrishnan, Aurobindo, Ramakrishna, Vivekananda. Satisfies L&S International req. Prereq: jr st; 3 cr in philos

473 Western Religious Thought. 3 cr. U/G. Concepts and arguments employed by such figures as Origen, Augustine, Aquinas, Maimonides, Luther, and Pascal. Satisfies L&S International req. Prereq: jr st; 3 cr in philos

474 Contemporary Religious Thought: (Subtitled). 3 cr. U/G. Analysis of two or more contemporary religious thinkers (e.g., Buber, Heschel, Tillich, Barth, Bultmann, death-of-God theologians, Moltmann, Pannenberg, Rahner, Chardin). Difficulties and objections are discussed. Retakable w/chg in topic to 9 cr max. Prereq: jr st, 3 cr in philos

475 Special Topics in Indian Religious Thought: (Subtitled). 3 cr. U/G. Intensive study of selected Hindu and Indian Buddhist thinkers and schools of thought, e.g. the Vedanta of Sankara and Ramanuja, Mahayana thought, modern Vedanta, Gandhi. Retakable w/chg in topic to 9 cr max. Satisfies L&S International req. Prereq: jr st; 3 cr in philos

502 Phenomenology of Religion. 3 cr. U/G. A comparative examination of types of religious experience and expression; the holy or sacred, mysticism, prophecy, myth and ritual, religious communities and/or leaders, etc. Prereq: jr st & 3 cr in philos

507 Special Problems in the Philosophy of Religion: (Subtitled). 3 cr. U/G. Variable content covering one or two topics, such as proofs of God's existence, the problem of evil, religious language, and mysticism. Emphasis on contemporary as well as classical discussions. Specific topics and any add'l prereqs announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st & 3 cr in Philos

511 Symbolic Logic. 3 cr. U/G. First-order predicate calculus; formal properties of theoretical systems; chief results of modern mathematical logic; advanced topics such as completeness and computability. Jointly-offered w/& counts as repeat of CompSci/Math 511. Prereq: jr st, either Philos 212(P) or 6 cr math at the 300-level or above; or grad st

512 Methods of Logic: (Subtitled). 3 cr. U/G. Selected problems in the philosophy of logic; the philosophical relevance of mathematical logic, modal logic, and various non-standard logics. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Philos 212(P) or 511(P)

516 Language and Meaning. 3 cr. U/G. Philosophical issues of the semantics, syntax and pragmatics of language; relations between philosophy of language and metaphysics, epistemology and philosophy of science. Prereq: jr st & Philos 101(P) or 432(P)

517 Special Problems in the Philosophy of Language and Linguistics: (Subtitled). 3 cr. U/G. In depth study of one or more topics concerning the nature of language; its acquisition, use and formal structures. Retakable w/chg in topic & cons advisor & instr to 6 cr max. Prereq: jr st; 3 cr in philos

518 Philosophy of History. 3 cr. U/G. The nature of historical knowledge and belief in terms of the justification of historical narration, explanation and prediction. Prereq: jr st & 3 cr in philos

519 Special Problems in Metaphysics and Epistemology: (Subtitled). 3 cr. U/G. Intensive study in such topics as perception, skepticism, induction, mathematical knowledge, universals, causality, substance, determinism, possibility. Retakable w/chg in topic to 9 cr max. Prereq: jr st & 3 cr in philos

520 Philosophy of the Natural Sciences. 3 cr. U/G. The nature and function of science; the logic of scientific method; clarification of such concepts as cause, law, theory, probability, determinism, and teleology. Prereq: jr st & 3 cr in philos

521 Philosophy of the Social Sciences. 3 cr. U/G. The nature and scope of the social sciences; explanatory, interpretive, and normative concerns in theory construction, their interconnection, and their methodological implications. Prereq: jr st & 3 cr in philos

522 Special Topics in the Philosophy of Science: (Subtitled). 3 cr. U/G. Consideration of one or more of the following: logic of theory construction, theoretical entities, measurement, nature of laws, conventionalism, operationalism, and induction. Retakable w/chg in topic to 9 cr max. Prereq: jr st

529 Philosophical Critique of Education. 3 cr. U/G. The values of education, the relevance of schools, political control and the question of indoctrination; philosophical issues in the concepts of education and indoctrination. Prereq: jr st & 3 cr in philos

532 Philosophical Problems: (Subtitled). 3 cr. U/G. Intensive study of one or two particular problems, such as determinism and freedom, ethical relativism, memory, or perception. Retakable w/chg in topic to 9 cr max. Prereq: jr st & 3 cr in philos

535 Philosophical Topics in Feminist Theory: (Subtitled). 3 cr. U/G. Study of selected feminist theorists with an emphasis on past or contemporary thinkers. Attention will be paid to the philosophical importance of the problems raised. Retakable w/chg in topic to 6 cr max. Prereq: jr st & a course in philos or women's stds advisable

542 Punishment and Responsibility. 3 cr. U/G. Views on the moral permissibility of punishment and other forms of penalization; the foundations of a general theory of moral responsibility. Prereq: jr st & 3 cr in philos. Philos 241(R) or social science background recom

553 Aesthetics. 3 cr. U/G. Analysis of current philosophies of art and criticism. Prereq: jr st; 3 cr in philos

562 Special Topics in Ethics and Social and Political Philosophy: (Subtitled). 3 cr. U/G. Intensive study of issues such as the concept of law, punishment, liberty, civil disobedience, the public good, and the applicability of scientific method to social issues. Retakable w/chg in topic to 9 cr max. Prereq: jr st & 3 cr in philos

681 Seminar in Advanced Topics: (Subtitled). 3 cr. U/G. Seminar on a philosopher, philosophical movement, issue, or problem for majors and graduate students. Research papers required. Additional prereqs announced in Timetable each time course is offered. Satisfies L&S Seminar req. Retakable w/chg in topic to 9 cr max. Prereq: sr st & 12 cr in philos at 300-level or above; or grad st

685 (effective 01/24/2005) Capstone Senior Seminar: (Subtitled). 3 cr. U/G. Seminar study of a philosophical text for senior philosophy majors and graduate students. Satisfies L&S Seminar req. Retakable w/chg in topic to 6 cr max. Prereq: sr st; cons instr

685 Capstone Senior Seminar: (Subtitled). 3 cr. U/G. Seminar study of a philosophical text for senior philosophy majors and graduate students. Satisfies L&S Seminar req. Retakable w/chg in topic to 6 cr max. Prereq: sr st; cons instr

712 Fundamentals of Formal Logic. 3 cr. G. A study of basic aspects of contemporary formal logic. Prereq: grad st

756 Seminar in Major Movements in Philosophical Thought: (Subtitled). 3 cr. G. Intensive study of school or movement such as continental rationalism, empiricism; existentialism, phenomenology, etc. Specific topic and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

758 Seminar in Major Philosophers: (Subtitled). 3 cr. G. Intensive study of the thought or system, or an important part of the thought or system, of a major figure in philosophy. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

790 Advanced Topics in Philosophy: (Subtitled). 3 cr. G. Discussion of special advanced topics in Philosophy. Retakable w/chg in topic to 9 cr max. Specific topics may be jointly-offered w/CompSci. Prereq: grad st; add'l prereqs depending on topic.

820 The Teaching of Philosophy. 0 cr. G. Discussion group with teaching assistants and their supervisor. Required for all teaching assistants teaching a Philos course

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee assessed for 1 cr. Prereq: grad st

903 Seminar in Epistemology: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; & cons instr

907 Seminar in Philosophy of Religion: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable of Classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

911 Seminar in Logic: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

916 Seminar in Philosophy of Language and Linguistics: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

920 Seminar in the Philosophy Of Science: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

941 Seminar in Ethics and Social and Political Philosophy: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

953 Seminar in Aesthetics: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

960 Seminar in Metaphysics: (Subtitled). 2-3 cr. G. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

990 Thesis. 3 cr. G. - Retakable only once in option B. Not retakable by students in Language & Linguis concentration. Prereq: grad st in option B or in Language & Linguis concentration; cons major prof & committee

999 Advanced Independent Study. 1-3 cr. G. - Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons dept chair

PHYSICS

College of Letters and Science

Degrees Conferred: MS, PhD in Physics
Phone: (414) 229-6266
FAX: (414) 229-5589
E-mail: joycem@uwm.edu
Web site: www.uwm.edu/Dept/Physics

The Physics Department is a young department with exceptional strength in several areas. We invite applications from able students interested in experimental and theoretical surface physics and condensed matter physics; in experimental modern optics; in q uantum gravity, quantum field theory, cosmology, and relativistic astrophysics; and in physics teaching at a high-school or college level. The primary goal of our graduate education is the training of creative research scientists.

Our research in gravitational physics is in several areas: In gravitational-wave astronomy, we play a leading role in the development for LIGO of templates to extract signals of gravitational-waves from the coalescence of binary neutron stars and from th e stochastic background. In early cosmology, recent work includes renormalization methods to investigate inflationary models. In the quantum arena, work involves black-hole evaporation and information loss, and quantization of microscopic topological stru ctures. In relativistic astrophysics we have established limits on the spin and mass of rotating neutron stars. Work in nuclear physics and particle physics includes a study incorporating gluon exchange and quark confining interactions into relativistic bound-state equations, and a study of production mechanisms for the Higgs boson and related intermediate mass bosons.

Research in theoretical physics also includes work in graph theory, fiber bundles, homotopy classes of diffeomorphisms, the quantum theory of measurement and black-hole entropy and information loss. Theoretical work in nonlinear dynamics and chaos concer ns maps approximating dynamical systems.

Research in surface physics includes experimental work in electron microscopy, electron holography, electron diffraction, scanning tunneling microscopy and spectroscopy, atomic force microscopy, infrared spectroscopy, synchrotron radiation, and molecular beam epitaxy. Theoretical work in surface physics focuses on the structure and dynamics of surfaces and interfaces. The theory groups have developed quantum mechanical multiple scattering theories for electron and positron diffraction, photoelectron diffraction, high-resolution electron-energy-loss spectroscopy, x-ray diffraction, and electron holography.

Experimental work in condensed matter physics is also being done in the areas of low-temperature physics, unconventional superconductivity (including high Tc), heavy fermions, materials synthesis and floating zone single crystal growth, oxides, magnetism, ultrasonics, and neutron diffraction. Theoretical work in condensed matter physics also includes research in quantum transport phenomena and electromigration in mesoscopic systems, and superconductivity.

Experimental work in modern optics is being done with ultrafast lasers to study the dynamics of physical, chemical, and biological systems on the molecular and cellular level.

Graduate Minor in Physics
A doctoral student in another department wishing to minor in Physics must choose a minor professor from among the Physics Graduate Faculty. The student and the minor professor plan a program of study consisting of 9 to 12 graduate credits in Physics and c omplete a Graduate Minor Program Plan for the Physics Department files.

Graduate Faculty

DISTINGUISHED PROFESSOR

Parker, Leonard E., Ph.D., Harvard University

PROFESSORS

Allen, Bruce, Ph.D., Cambridge University
Friedman, John, Ph.D., University of Chicago
Gajdardziska-Josifovska, Marija, Ph.D., Arizona State University
Saldin, Dilano, Ph.D., Oxford University, England, Chair
Sarma, Bimal, Ph.D., Northwestern University
Sorbello, Richard S., Ph.D., Stanford University
Weinert, Michael, Ph.D., Northwestern University

ASSOCIATE PROFESSORS

Agterberg, Daniel, Ph.D., University of Toronto, Canada
Brady, Patrick, Ph.D., University of Alberta
Hirschmugl, Carol J., Ph.D., Yale University
Li, Lian, Ph.D., Arizona State University
Lyman, Paul F., Ph.D., University of Pennsylvania
Yakovlev, Vladislav V., Ph.D., Moscow State University

ASSISTANT PROFESSORS

Creighton, Jolien, Ph.D., University of Waterloo
Guptasarma, Prasenjit, Ph.D., University of Bombay, India
Raicu, Valerica, Ph.D., University of Bucharest, Romania
Wiseman, Alan, Ph.D.,Washington University

Master of Science in Physics

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

Letters of Recommendation. Three letters of recommendation are required from persons familiar with the applicant's academic work.

Graduate Record Examinations. Both the General Test and the Subject Test in Physics are strongly encouraged (but not required).

Undergraduate major in physics or related fields. Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the

individual graduate program unit. No course credits earned in making up deficiencies may be counted a s program credits required for the degree.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The newly admitted student is assigned to a temporary advisor.

Students in the master's program who are planning to terminate their physics studies with a master's degree should plan and prepare a program of study with the Department Master's Program Advisor.

Option 1: Thesis Option

Credits and Courses
Minimum degree requirement is 24 graduate credits, 18 of which must normally be in physics and 6 of which may be in related fields. Of the 18 credits earned in the Department, at least 6 must be in physics courses numbered above 700, with the remainder in courses at least above 500; research, seminar and independent credits do not satisfy the 700 requirement. Six credits are earned through the thesis.

Thesis
The student must write an acceptable thesis.

Comprehensive Examination
The student must pass a comprehensive oral examination, in part a defense of the thesis.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Option 2: Non-thesis Option

Credits and Courses
Minimum degree requirement is 24 graduate credits, 18 of which must normally be in physics and 6 of which may be in related fields. Of the 18 credits earned in the Department, at least 6 must be in physics courses numbered above 700, with the remainder in courses at least above 500; research, seminar and independent credits do not satisfy the 700 requirement.

Thesis
Not required.

Comprehensive Examination
The student must pass a comprehensive written or oral examination. The non-thesis master's Oral Examination should evaluate the student's achievements in graduate courses and fulfillment of the goals of the student's program of study. In particular, stude nts should be familiar with the materials in the "core" courses (Physics 515, 531, 532, 711 and 720).

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Physics

Admission
Applicant must meet Graduate School requirements plus departmental requirements as given for admission to the master's program. A master's degree is not a prerequisite for this PhD program.

Reapplication
A student who receives the master's degree must formally reapply for admission to the Graduate School before continuing studies toward the PhD.

Course of Study
Minimum degree requirement is 54 graduate credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM. The student plans an individual program of studies in consultation with the major professor. Coursework must include a minimum of 12 credits in physics graduate courses in the 700-999 levels (not including 711, 720, 721, or 990). A student may elect to complete one of the following minor programs: a minor of 9 to 12 credits in a single department; a minor of 12 credits i n two or more departments. Traditional fields for the minor are mathematics, other natural sciences, computer sciences and engineering. In planning a minor in a single department, the student is advised by the minor professor; in planning a minor in two o r more departments, the student is advised by the major professor. The program of study is to be chosen with the major professor and the departmental academic graduate committee.

Residence
The student must meet minimum Graduate School residence requirements.

Written Qualifying Examination
Prior to taking the oral doctoral preliminary examination, the student must pass a written qualifying examination which evaluates the student's general background in graduate level physics. This examination is based on subject matter at least as advanced as the material covered by the non-thesis master's comprehensive examination. A student may not continue in the physics graduate program after 4.5 years without having passed this examination.

Doctoral Preliminary Examination and Doctoral Proposal Hearing
The student must prepare a written proposal and pass an oral examination to qualify for formal admission to candidacy for the degree. The oral examination primarily seeks to determine the student's preparation for independent research and the suitability of the proposed dissertation program. This examination shall be taken no later than four semesters after passing the written qualifying examination. However, no student will be required to take the oral examination earlier than the sixth semester of gradu ate work at UWM.

Dissertation
The candidate must present a dissertation reporting the results of an original and independent research investigation representing substantive creative contribution.

Dissertation Defense
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Graduate Student and Faculty Handbook.

Courses **Physics (PHYSICS)**

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

410 Optics Laboratory. 2 cr. U/G. Selected experiments in optics. Prereq: jr st; Physics 325(425)(C)

411 Mechanics. 4 cr. U/G. Vector analysis, kinematics, conservative forces, planetary motion, pendulum, free and forced oscillations, coupled systems and normal coordinates, angular momentum, rigid bodies. Prereq: jr st; Physics 210(NP) or 220(NP); Physics 270(260)(P), 370(P), or equiv

421 Electricity and Magnetism. 4 cr. U/G. Electrostatic fields, capacitance, multipole expansion, dielectric theory; magnetostatics, electromagnetic induction; magnetic properties of matter; Maxwell's equation and electromagnetic waves; relativity and electromagnetism. Prereq: Physics 210(NP) or 220(NP); Math 321(P)

441 Quantum Physics I. 4 cr. U/G. Bohr atom, introduction to quantum mechanics, atomic spectra, periodic table, x-rays. Prereq: jr st; Physics 309(221)(NP); Math 321(C)

442 Quantum Physics II. 3 cr. U/G. Continuation of Physics 441. Molecular structure, solids, nuclear physics, cosmic rays and fundamental particles. Prereq: Physics 441(NP)

463 Introduction to Atmospheric Physics. 3 cr. U/G. Atmospheric phenomena not directly linked with the general circulation: refraction and scattering, visibility, radiation transfers, optics, aerosols and cloud particles, acoustics, radar, atmospheric electricity. Not available for grad cr at this time. Prereq: jr st; Physics 210(P), Math 232(P), or Atm Sci 350(P)

501 Special Topics: Mathematical Models of Physical Problems I. 3 cr. U/G. Selected topics in mathematics for study of the techniques and procedures for stating physical problems in mathematical terms and the physical interpretation of mathematical solutions. Prereq: jr st; Physics 210(P); Math 234(P)

502 Special Topics: Mathematical Models of Physical Problems II. 3 cr. U/G. More selected topics in mathematical models. Prereq: jr st; Physics 210(P); Math 234(P). Physics 501(R)

511 Fundamentals of Acoustics. 3 cr. U/G. Vibrating bars and circular membranes. Acoustic plane wave transmission. Resonators, filters, and acoustic analogues. Architectural and underwater acoustic. Loudspeakers, microphones, and ultrasonic and sonor transducers. Prereq: jr st; Math 234(NP), & Physics 210(NP) or 220(NP)

515 Statistical Mechanics. 3 cr. U/G. Brief survey of thermodynamics; classical and quantum mechanics; classical and quantum gases. Prereq: jr st; Physics 317(P) & 441(P)

517 Special Relativity. 3 cr. U/G. Relativistic kinematics, the Lorentz transformation, tensor calculus, applications to motion of particles, electromagnetism. Prereq: jr st; Physics 411(R) & 421(R)

531 Introduction to Quantum Mechanics. 3 cr. U/G. Historical background and experimental basis, De Broglie waves, correspondence principle, uncertainty principle, Schroedinger equation; hydrogen atom, electron spin, Pauli Principle, applications of wave mechanics. Prereq: jr st; Physics 441(P) & differential equations

532 Introduction to Quantum Mechanics II. 3 cr. U/G. Continuation of 531, including perturbation theory and transition theory. Prereq: jr st & Physics 531(P)

541 Elementary Particles. 3 cr. U/G. Accelerators and detectors; special unitary groups; quark model of hadrons; Feynman diagrams; electromagnetic, weak and strong interactions of quarks and leptons; Higgs boson. Prereq: jr st; Physics 441(P)

551 Introduction to Solid State Physics I. 3 cr. U/G. Crystal diffraction and the reciprocal lattice, crystal binding, elastic waves, phonons and lattice vibrations, thermal properties of insulators, and the free electron Fermi gas. Prereq: jr st; Physics 427(P) & 421(P)

575 Vacuum Science and Technology. 3 cr. U/G. Viscous and molecular flow, vacuum materials and seals, metal-to-ceramic seals, evaporation and vapor pressures, vacuum pumps, vacuum gauges, mass spectrographs, chemical reactions at surfaces, outgassing. Prereq: jr st & Physics 341(P) or 441(P)

610 The Art and Science of Teaching Physics. 1 cr. U/G. Participants critique lectures, videotapes of experienced teachers, each other; address conceptual problems facing beginning students; gain familiarity with demonstrations, classroom technology; discuss their own classes. Prereq: appt as undergrad TA or grad st

651 Introduction to Solid State Physics II. 3 cr. U/G. Semi-conductor crystals, superconductivity, dielectric properties, ferroelectric crystals, diamagnetism and paramagnetism, ferromagnetism and antiferromagnetism, magnetic resonance, optical phenomena in insulators, point defects, alloys and dislocations. Prereq: jr st; Physics 551(P)

670 Electron Microscopy Laboratory. 3 cr. U/G. Diffraction, imaging, and spectroscopy methods for study of morphology, crystallinity, and composition of solids in a transmission electron microscope. Prereq: sr st; Physics 551(P) or 770(C)

711 Theoretical Physics-Dynamics. 3 cr. G. Lagrange equations, canonical formulation, principle of least action, normal coordinates, rigid bodies, special relativity, mathematical methods. Prereq: grad st; Math 321(C) or 322(C); or 701(C) or 702(C)

716 Advanced Topics in Statistical Physics. 3 cr. G. Systems of interactir particles; critical phenomena; transport theory; irreversible processes and fluctuations; model calculations for interacting systems of particles. Prereq: Physics 515(P), 532(P)

717 Gravitation. 3 cr. G. General theory of relativity. Metric, covariant derivative, and curvature. Einstein field equations. Newtonian and weak-field limits. Gravitational waves. Experimental tests. Black holes and relativistic stars. Prereq: grad st; Physics 517(P)

718 White Dwarfs, Neutron Stars, and Black Holes. 3 cr. G. Physics of compact objects; newtonian and relativistic stellar structure and stability; pulsars, x-ray sources; accretion disks; gravitational collapse; stellar-size and supermassive black holes; quasars. Prereq: grad st; Physics 717(P) or cons instr

720 Electrodynamics I. 3 cr. G. Maxwell's equations; Helmholz theorem; scalar and vector potentials; boundary value

problems; plane wave solutions. Prereq: grad st; Physics 428(P) & 711(P)

721 Electrodynamics II. 3 cr. G. Wave guides, radiation by charges; radiation reaction; radiation scattering, damping and dispersion; covariant formulation of electrodynamics. Prereq: grad st; Physics 720(P)

731 Quantum Mechanics. 3 cr. G. Mathematical formalism of quantum mechanics. Obserables and transformation theory, scattering perturbation, other approximation methods. Prereq: grad st; Physics 532(P) & 711(P)

732 Quantum Mechanics. 3 cr. G. Continuation of 731 including symmetry properties, relativistic quantum mechanics, introduction to the theory of quantized fields. Prereq: grad st & Physics 731(P)

751 Solid State Theory I. 3 cr. G. Phonons, plasmons, magnons, fermion fields and the hartree-fock approximation, and electron many-body techniques and the electron gas. Prereq: grad st; Physics 531(P) & Physics 651(P)

752 Solid State Theory II. 3 cr. G. Dynamics of electrons in a magnetic field: energy bands, cyclotron resonance, impurity states, optical absorption and excitons in semiconductor crystals; electrodynamics of metals; green's functions. Prereq: grad st & Physics 532(P) & 751(P)

770 Electron Microscopy. 3 cr. G. Kinematical and dynamical theory of electron diffraction. Transfer function theory of imaging. Electron and x-ray spectroscopies. Applications to surfaces and interfaces. Prereq: grad st; Physics 551(P) or cons instr

775 Surface Physics I. 3 cr. G. Survey of experimental techniques in surface physics research. Prereq: grad st; Physics 515(P) & 575(P)

776 Surface Physics II. 3 cr. G. Survey of theoretical approaches in surface physics research. Prereq: grad st; Physics 775(P) or cons instr

801 Special Topics in Theoretical Physics. (Subtitled). 2-3 cr. G. Discussion of recent research or advanced special topics. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

807 Group Theory and Its Applications to Physics. 3 cr. G. Representations of discrete and continuous groups, including rotation groups, unitary groups and crystal point and space groups. Symmetries of elementary particles. Molecular obitals, energy bands. Counts as repeat of Math 807. Prereq: grad st; Physics 532(P)

811 Nonlinear Dynamics and Chaos. 3 cr. G. Iteration of maps, numerical integration, strange attractors in dissipative systems, fractal dimensions, multifractals, entropy. Chaos in hamiltonian systems, perturbation theory, kam theorem. Quantum choas. Prereq: grad st; Physics 711(P)

817 Gravitation and Cosmology II. 3 cr. G. Experimental tests in gravitation. Gravitational waves: generation, detection. Spinning black holes. Cosmology: idealised cosmologies; present state of the universe; nucleosynthesis; inflation; recent developments. Prereq: grad st; Physics 717(P) or cons instr

818 Advanced Topics in Gravitational Physics. 3 cr. G. Topics depend on student interest. Initial value problem. Spinors and positive mass. Singularity theorems. Modern kaluza-klein theory. Approaches to quantum gravity. Prereq: grad st; Physics 717(P)

831 Quantum Field Theory I. 3 cr. G. Group theory, canonical and path integral quantization, feynman rules, quantum electrodynamics, renormalization, quantum chromodynamics, electroweak theory, spontaneous symmetry breaking. Prereq: grad st; Physics 732(P)

832 Quantum Field Theory II. 3 cr. G. Renormalization of gauge theories, grand unified theories, topological objects, kaluza-klein theories, supersymmetry, supergravity, superstring theory. Prereq: grad st; Physics 831(P)

851 Experimental Techniques in Low Temperature Physics. 3 cr. G. A survey of cooling techniques and temperature measurements at low temperatures. Prereq: grad st; cons instr

852 Superconductivity. 3 cr. G. Properties of type I and type II superconductors, bcs and ginzburg-landau theory, vortices, and flux dynamics. Prereq: grad st; Physics 532(P) & 651(P)

853 Superfluidity. 3 cr. G. Bose-Einstein condensation. Properties of superfluid 4HE, 3HE and 3HE-4HE mixtures. Prereq: grad st; Physics 551(P) & 651(P) or physics 515(P)

854 Electron Phonon Interaction. 3 cr. G. Wave propagation in metals. Interaction of electrons with the lattice in normal metals, superconductors, and magnetic materials. Prereq: grad st; Physics 532(P) & 651(P)

900 Colloquium. 1 cr. G. Lectures by staff and visitors on research in various areas of physics. Prereq: grad st

903 Seminar in Theoretical Physics. (Subtitled). 1-3 cr. G. Discussion of special topics of interest to research students in theoretical physics. Retakable w/chg in topic to 9 cr max. Prereq: grad st & cons instr

904 Seminar in Surface Studies: (Subtitled). 1-3 cr. G. Special topics in the chemistry and physics of surface studies. Specific topics and any additional prerequisites announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons instr

905 Seminar in Solid State Physics: (Subtitled). 1-3 cr. G. Special topics in electron phonon interaction. Retakable w/chg in topic to 9 cr max. Prereq: grad st; Physics 551(P)

990 Research. 1-9 cr. G. - Prereq: grad st & cons instr

999 Independent Reading. 1-3 cr. G. For the benefit of graduate students unable to secure needed content in regular courses. Prereq: grad st, cons instr

POLITICAL SCIENCE

College of Letters and Science

Degrees Conferred: MA, PhD in Political Science
Phone: (414) 229-4221
FAX: (414) 229-5021
E-mail: heouk@uwm.edu
Web site: www.uwm.edu/Dept/Polsci

The Department of Political Science offers graduate programs of study in political science with concentrations in five fields: American politics; comparative politics; international relations; political theory; and public administration and public policy.

The master's program is designed to provide students with a basic grounding in the scope and methodology of the discipline, while at the same time allowing maximum flexibility in developing a program of study that will meet students' career objectives. It is recommended that students preparing themselves for PhD work emphasize empirical theory, quantitative skills and strategies and techniques of conducting research. Students may select coursework to help them prepare for such career fields as governmental service, public and private education, community service, and private industry. In developing an appropriate and coherent program of study, each graduate student works closely with the major professor and committee of advisors.

The Department accommodates the master's student who attends part time by scheduling sufficient graduate-level courses in the late afternoons and evenings to enable the student to earn a master's degree through part-time attendance.

In the PhD program the departmental emphasis is on conceptual and quantitative work. The Department requires that the student be broadly trained and accordingly encourages each student to take advantage of offerings in related disciplines to strengthen expertise in political change. The graduate of the program is qualified for a career in university teaching, in government service or in the private sector where the analytical skills and knowledge of the social scientist are required.

Graduate degrees are conferred on the basis of a level of achievement which is acquired by independent reading and research as well as by taking courses. They are never conferred solely on the basis of prescribed courses and residency requirements.

Graduate Faculty

WILDER CRANE PROFESSOR

Weber, Ronald E., Ph.D., Syracuse University

PROFESSORS

Browne, Eric C., Ph.D., Syracuse University
Ethridge, Marcus E., Ph.D., Vanderbilt University
Handelman, Howard, Ph.D., University of Wisconsin-Madison, Chair
Holbrook, Thomas, Ph.D., University of Iowa
Nardin, Terry, Ph.D., Northwestern University
Percy, Stephen L., Ph.D., Indiana University
Pienkos, Donald, Ph.D., University of Wisconsin-Madison

ASSOCIATE PROFESSORS

Dolan, Kathleen, Ph.D., University of Maryland-College Park
Ihrke, Douglas, Ph.D., Northern Illinois University
Heo, Uk, Ph.D., Texas A&M University
Horowitz, Shale, Ph.D., University of California - Los Angeles
Meckstroth, Theodore, Ph.D., University of Minnesota

ASSISTANT PROFESSORS

Benesh, Sara C., Ph.D., Michigan State University
Bohte, John, Ph.D., Texas A&M University
Ewig, Christina, Ph.D., University of North Carolina-Chapel Hill
Kaheny, Erin, Ph.D., University of South Carolina
Lee, Mordecai, Ph.D., Syracuse University
Rast, Joel, Ph.D., University of Oregon
Redd, Steven B., Ph.D., Texas A&M University

Master of Arts in Political Science

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Undergraduate major or substantial work in the field of political science.
- Undergraduate grade point average of at least 3.0 (4.0 scale).
- Three letters of recommendation from persons familiar with applicant's scholastic ability and achievements.
- Submission of Graduate Record Examination scores. Applications will not be considered until scores are received.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The incoming student is advised by the chair of the departmental Graduate Committee; as the student develops specialized interests within the discipline, the student selects a major professor from within that area of specialization.

Credits and Courses
Minimum degree requirement is 24 graduate credits, 18 of which must be in political science and 6 of which may be in related fields; 18 credit hours of coursework must be taken at the 700 level or above. The Graduate Committee of the Department will consider requests that individual students' programs contain fewer credits at the 700 level or above.

All students will take three courses dealing with the scope and method of political inquiry.

1. Pol Sci 700 should be taken during the first semester.
2. Pol Sci 701 should be taken during the first semester.
3. Pol Sci 702 should be taken during the second semester.

Master's Paper
A formal thesis is not required. However, each student shall prepare and defend orally a paper which demonstrates conceptual ability and research competence in some recognized area (sub-field) of political science. It is expected that the master's paper will be prepared in a scholarly fashion, normally conforming to the format characteristic of journal articles published in the chosen area of study. A statement setting forth additional guidelines and criteria of evaluation will be made available.

For full-time students it is expected that the master's paper will be successfully defended prior to the completion of three semesters of graduate work. Consequently, the Department encourages students to choose paper topics for graduate seminars which may serve as the basis for the master's paper. Postponement of the oral defense of the master's paper beyond three semesters requires the approval of the Graduate Committee.

Comprehensive Examination
An oral defense of the master's paper is required. Master's papers will be defended orally before a three-person committee composed of one of the student's advisors and two other faculty members selected by the chair of the Department in consultation with the student and the advisor.

The committee will be selected at least one full semester prior to anticipated submission of the master's paper. The student must obtain committee approval of the research topic and methodology immediately following the selection of the committee.

A student may enroll for 3 credit hours of independent study for final preparation of the paper, subject to the approval of the Master's Committee.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Political Science

Admission
An applicant must meet Graduate School requirements plus these departmental requirements to be considered for admission to the program:

- Master's degree in political science.
- Evidence of a high standard of achievement in graduate work at the master's level.
- Submission of Graduate Record Examination scores, except for applicants receiving a MA degree from UWM.

In some instances where the applicant's record demonstrates exceptional promise, the Department will consider applications for admission to the PhD program directly from the BA degree. Such admission does not constitute a waiver of any of the requirements indicated below.

All applicants for admission to the PhD program will be evaluated on the basis of their prior academic record, scores on the Graduate Record Examination, and three letters of recommendation.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. The incoming student is advised by the chair of the departmental Graduate Committee; as that student develops specialized interests within the discipline, the student selects a major professor from within that area of specialization.

Course of Study
Minimum degree requirement is 54 graduate credits beyond the bachelor's degree, 27 of which must be earned in residence at UWM at the doctoral level.

Areas of Concentration
In consultation with the major professor students plan a program of studies through which a high level of competence is gained in two substantive fields (hereafter referred to as "major" or "prelim" fields). The department offers five fields of study:

American Politics
Comparative Politics
International Relations
Political Theory
Public Administration and Public Policy

Competence in these fields is demonstrated by a written and oral preliminary examination. In addition to the fields listed above, students may petition the graduate committee to be examined in an alternative field. This must be a coherent field that is not covered by one of the existing prelim areas.

Distribution Requirement
To ensure broad exposure to the discipline, students must take a minimum of three courses outside of their prelim fields, at least two of which must be in a single field. Courses used to satisfy this requirement must be taken from the departmental offerings in the five substantive fields described above. Courses that bridge two or more fields of study cannot be used to satisfy this requirement if one of those fields falls within a student's prelim areas.

The major portion of work should be in political science courses numbered 700 or above. If approved by the Graduate Committee, a limited number of 300-699 level courses may also be included, although this is normally permitted only if necessary to overcome some deficiency in the student's prior preparation.

Core Research Requirements
Attainment of the PhD denotes a high level of competence in research skills relevant to the discipline of political science. Thus, all students must complete the core departmental research seminars Political Science 700, 701, and 702. Since skills learned in these courses are important elements in dealing successfully with subject matter presented in other seminars, students should enroll in these seminars immediately upon entering the graduate program.

Students must earn at least three additional credits in research methodology from courses offered by the Department of Political Science or other departments. Students using a course from outside the Department of Political Science to satisfy this requirement may enroll on a "Credit/No Credit" basis, where the grade of "Credit" demonstrates satisfactory completion of the requirement. Upon successful petition to the departmental Graduate Committee, a student may gain exemption from this requirement, based on course work completed in the five years prior to entering the graduate program. Students who receive this exemption must still complete at least 27 credits in residence. Credits earned to meet the research requirement may count toward

the 54 credits of work required for the PhD if they carry graduate credit and are taken for a grade.

In some cases, competence in foreign language skills is necessary for significant disciplinary research. Students may fulfill the research requirements, beyond Political Science 700, 701, and 702 through demonstration of a reading knowledge of one foreign language. Competence is established through examination, by an appropriate UWM language department. The student must perform at a level equivalent to six semesters of college-level work in the language.

Evaluation of Student Progress
The Department annually evaluates the progress of each student, in order to identify areas of strength and weakness as an aid to the student and the student's major professor in planning the program of study. This evaluation is also used to determine whether or not the student should be encouraged to pursue further graduate work.

Residence
The student must meet minimum Graduate School residence requirements.

Doctoral Preliminary Examination
The student must pass a doctoral written and oral preliminary examination covering both of his or her fields of study. The preliminary exam is taken during the semester following the completion of coursework.

Dissertation
The candidate, working under the supervision of the major professor and the candidate's dissertation committee, must write an acceptable dissertation. A dissertation prospectus must be written during the last semester of coursework and will be defended at the end of the following semester as part of the preliminary examination. Guidelines for preparation of the dissertation are available from the Graduate School.

Dissertation Defense
The candidate must, as a final step toward the degree, pass an oral examination in defense of the dissertation. The candidate who does not successfully defend a thesis within five years of admission to candidacy may be required to take another comprehensive preliminary examination and be readmitted to candidacy.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School Ph.D. requirements, see the PhD section of the Graduate Student and Faculty Handbook.

Courses

Political Science (POL SCI)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

300 Western European Politics. 3 cr. U/G. Survey of Western European nations emphasizing governing structures and processes, socio-cultural integrative and disintegrative processes, and national responses to problems of economic and political unity. Comparative politics course. Satisfies L&S International req. Prereq: jr st

302 Politics of Eastern Europe. 3 cr. U/G. Evolution of modern nation-state systems in Eastern Europe; interactions among nationalism, communism, and democracy in the countries of the region since 1945. Comparative politics course. Satisfies L&S International req. Prereq: jr st

310 Politics of the Soviet Union and Its Successor States. 3 cr. U/G. Changing Russian and Soviet political and governmental institutions in the 20th century; autocracy, centralization and conformity versus democracy; autonomy and pluralism as issues confronting the system. Comparative politics course. Satisfies L&S International req. Prereq: jr st

311 Russian Foreign Policy. 3 cr. U/G. Russian foreign relations, concerns, policies, capabilities, objectives, ambitions, and their consequences before 1945, during the Cold War era, and after 1985. Comparative politics course. Satisfies L&S International req. Prereq: jr st

313 Japanese Politics and Foreign Policy. 3 cr. U/G. Domestic politics in Japan and its relations with Asian neighbors and the U.S. Comparative politics course. Satisfies L&S International req. Prereq: jr st

314 Chinese Politics and Foreign Policy. 3 cr. U/G. Political developments in mainland China, stressing the period since 1949, with analysis of historical trends and foreign policy of the People's Republic of China. Comparative politics course. Satisfies L&S International req. Prereq: jr st

316 International Law. 3 cr. U/G. Rules and principles of behavior which govern nations in their relations with one another, as illustrated in texts and cases. International politics course. Satisfies L&S International req. Prereq: jr st; one course in pol sci or modern hist

320 Politics of Developing Countries. 3 cr. U/G. Comparative analysis of political problems confronting developing countries. Comparative politics course. Satisfies L&S International req. Prereq: jr st

325 Latin American Politics. 3 cr. U/G. Analysis of contemporary governments in Latin America, with particular emphasis on the social way of life, the politics of economic organization and government in action. Comparative politics course. Satisfies L&S International req. Prereq: jr st

327 Politics of the Middle East and North Africa. 3 cr. U/G. Analysis of political processes in Middle East and Arabic-speaking North Africa, with reference to problems of nationalism, nation-building, modernization and the Arab-Israeli conflict. Comparative politics course. Satisfies L&S International req. Prereq: jr st

328 The Arab-Israeli Conflict. 3 cr. U/G. Competing views about the Arab-Israeli conflict, especially its Palestinian dimension. History and evolution of the conflict; current issues and possible solutions. Comparative politics course. Satisfies L&S International req. Prereq: jr st

329 African Politics. 3 cr. U/G. The process of political change in contemporary Africa, with emphasis on the problems of nationalism and nation-building. Comparative politics course. Satisfies L&S International req. Prereq: jr st; Pol Sci 106(R)

330 The Politics of International Economic Relations. 3 cr. U/G. Introduction to the politics of international trade and

investment in industrial, developing, and post-communist countries. International politics course. Satisfies L&S International req. Prereq: jr st

333 Seminar in Comparative Politics: (Subtitled). 3 cr. U/G. Intensive study in selected aspects of comparative politics. Retakable w/chg in topic to 9 cr max. Enrollment limited to 15 students. Comparative politics course. Satisfies L&S Seminar & International reqs. Prereq: jr st

334 German Politics and the New Europe. 3 cr. U/G. Development of the two German republics after 1945; domestic and European issues of a unified Germany. Comparative politics course. Satisfies L&S International req. Prereq: jr st

335 Comparative Political Systems. 3 cr. U/G. Government and politics in various Western and developing countries, stressing common experience as well as differences conditioned by diverse circumstances. Comparative politics course. Satisfies L&S International req. Prereq: jr st

337 International Organization and the United Nations. 3 cr. U/G. Collective security as an approach to international peace. Emphasis on the changing nature of the United Nations, its major problems, and the current national and bloc policies by member states. International politics course. Satisfies L&S International req. Prereq: jr st

338 Seminar in International Relations: (Subtitled). 3 cr. U/G. Intensive study in selected aspects of international relations. Add'l prereqs announced in Timetable each time course is offered. Retakable w/chg in topic to 6 cr max. Enrollment limited to 15 students. International politics course. Satisfies L&S International & Seminar reqs. Prereq: jr st

339 European Integration. 3 cr. U/G. Evolution of the European Union, its institutions, and key policy developments related to the single market, common currency, enlargement, and the democratic deficit. Comparative or international politics course. Satisfies L&S International req. Prereq: jr st

340 Politics of Nuclear Weapons. 3 cr. U/G. Survey of nuclear war issues, including the effects of nuclear weapons, defense against nuclear attack, arms control, nuclear weapons proliferation, and nuclear ethics. International politics course. Prereq: jr st; course in pol sci or related field recom

341 Politics and Markets in Pacific-Rim Countries: (Subtitled). 3 cr. U/G. Introduction to the political-economic relationships among Pacific-Rim countries. Retakable w/chg in topic to 6 cr max. Comparative politics course. Satisfies L&S International req. Prereq: jr st

343 Asian International Relations. 3 cr. U/G. Analysis of recent relations of the major powers in East, Southeast, and South Asia, especially the problems of the smaller states and the role of the United States. International politics course. Satisfies L&S International req. Prereq: jr st

346 U.S.-Latin American Relations. 3 cr. U/G. Historic and contemporary inter-American relations, including issues such as U.S.- Cuban relations, drug trafficking, trade integration, international finance, and migration. International politics course. Prereq: jr st

359 Problems of American Foreign Policy. 3 cr. U/G. Analysis of problems confronting the United States in principal regions of the world, emphasizing the content and instrumentalities of recent policy, and considering alternative solutions. International politics course. Satisfies L&S International req. Prereq: jr st

361 History of International Political Thought. 3 cr. U/G. History of international political thought. Statist and internationalist theories of sovereignty, war, intervention, and international law. Political theory or international politics course. Satisfies L&S International req. Prereq: jr st

362 Ethics and International Relations. 3 cr. U/G. Ethical aspects of international relations, including just and unjust wars, human rights, and international distributive justice. International politics course. Prereq: jr st

365 Theories and Methods in International Politics. 3 cr. U/G. Empirical, theoretical, and quantitative analyses of international relations. International politics course. Satisfies L&S International req. Prereq: jr st

370 International Conflict. 3 cr. U/G. Theoretical and quantitative studies of international conflict and war. Includes individual, national, and systemic approaches. International politics course. Satisfies L&S International req. Prereq: jr st

381 The Development of Western Political Thought. 3 cr. U/G. Political theory from the Greek era to the present. Political theory course. Prereq: jr st; grade of C or better in English 102(P) or score of 637 or higher on EPT

382 Modern Political Thought. 3 cr. U/G. Liberal democracy, traditional conservatism, fascism, communism and socialism, with emphasis on the development and problems of democracy. Political theory course. Prereq: jr st

384 (560) The Philosophy of Law. 3 cr. U/G. The idea of law and its relationship to morality. Issues of legal obligation, rights, responsibility, and punishment. Philos 384 & Pol Sci 384 are jointly offered; they count as repeats of one another. Political theory course. Prereq: jr st; 3 cr in philos or previous course in political theory or law studies recom

385 American Political Thought. 3 cr. U/G. Survey of main currents of American political thought from colonial times to the present. Political theory course. Prereq: jr st

386 Contemporary Political Theory. 3 cr. U/G. Survey of current work in different branches of political theory, including formal, analytical, and critical theory. Political theory course. Prereq: jr st

387 Seminar in American Politics: (Subtitled). 3 cr. U/G. Intensive study in selected aspects of American politics. Retakable w/chg in topic to 6 cr max. Enrollment limited to 15 students. American politics course. Satisfies L&S Seminar req. Prereq: jr st

389 Politics and Philosophy: (Subtitled). 3 cr. U/G. Ideas and methods in recent political theory, including the history of political thought, analytical political philosophy, and critical theory. Political theory course. Retakable w/chg in topic to 6 cr max. Prereq: jr st; one course in political theory

390 Political Data Analysis. 4 cr. U/G. Research design, measurement, and techniques of political data analysis. Research methods course. Prereq: jr st

392 Survey Research. 3 cr. U/G. Theory and practice of survey techniques. Planning, design, sampling, types of data, questionnaire construction, interviewing, field operation, and coding examples in a variety of fields. Research methods course. Prereq: jr st

405 State Government: (Subtitled). 3 cr. U/G. Selected topics in state government and politics with special emphasis on Wisconsin. Retakable w/chg in topic to 6 cr max. American politics course. Prereq: jr st

408 The American Presidency. 3 cr. U/G. Study of the office and powers of the president, with an analysis of his major roles as chief administrator, legislative leader, political leader, initiator of foreign policies, Commander-in-Chief and head of state. American politics course. Prereq: jr st

411 Constitutional Law: Government Powers and Federalism. 3 cr. U/G. Constitutional interpretation, with emphasis on separation of powers, federalism, and property. American politics course. Prereq: jr st

412 Constitutional Law: Civil Rights and Liberties. 3 cr. U/G. Cases in civil rights and liberties in such areas as equal protection, due process, and First Amendment freedoms. American politics course. Prereq: jr st

413 Governing Metropolitan Areas. 3 cr. U/G. Issues in governing cities and suburbs, including finances and intergovernmental relations. American politics course. Prereq: jr st

416 Trial Courts in the Judicial Process. 3 cr. U/G. Study of trial courts and the interaction of trial judges with lawyers, police, litigants, jurors, politicians, and the public, with emphasis on large urban courts. American politics course. Prereq: jr st; Pol Sci 250(R)

417 The Supreme Court. 3 cr. U/G. Study of the behavior of the U.S. Supreme Court justices and other appellate judges and courts within the judicial and political systems. American politics course. Prereq: jr st; Pol Sci 250(R)

419 Constitutional Interpretation. 3 cr. U/G. Analysis of contemporary interpretive themes, including judicial activism, the living Constitution, and critical theories of law. American politics course. Prereq: Pol Sci 411(P) or 412(P)

421 Party Politics in America. 3 cr. U/G. The role of political parties in the nominating process, campaigns, fund raising, voter choice, and the governing processes of Congress and the presidency. American politics course. Prereq: jr st; Pol Sci 103(P) or 104(P)

423 Conduct of American Foreign Affairs. 3 cr. U/G. Descriptive analysis of the way American foreign policy is formulated and carried out by federal agencies. International politics course. Satisfies L&S International req. Prereq: jr st

426 Congressional Politics. 3 cr. U/G. The role of Congress in shaping public policy, with emphasis on the impact of elections, lawmaking procedures, congressional committees, political parties, interest groups, and presidents. American politics course. Prereq: jr st

444 Politics and the Bureaucracy. 3 cr. U/G. The role of the bureaucracy in policymaking. Political resources of bureaucracy, its ability to influence policy outcomes. Political controls on bureaucracy, and proposals for reform. American politics course. Prereq: jr st

450 Urban Political Problems. 3 cr. U/G. Reading and analysis of specific urban problems and governmental responses. American politics course. Prereq: jr st

452 Administrative Law. 3 cr. U/G. An examination of due process, privacy, and other constitutional and legal issues as they arise in the regulatory, investigatory, and enforcement activities of administrative agencies. American politics course. Prereq: jr st

464 (220) Women and the Law. 3 cr. U/G. Topics in federal and state law pertaining to women, gender, and feminism, such as reproductive rights, domestic violence, and pay equity. American politics course. Prereq: jr st

467 Elections and Voting Behavior. 3 cr. U/G. Psychological and social components of voting behavior, current electoral trends, and role of voters in the governing process. American politics course. Prereq: jr st

470 Public Personnel Administration. 3 cr. U/G. Analysis of the problems encountered in personnel administration in the public sector, including recruitment, testing, merit, affirmative action, promotion, and discipline. American politics course. Prereq: jr st

471 Problems in Law Studies: (Subtitled). 3 cr. U/G. Discussion of selected problems in contemporary law and politics, such as civil rights movements or law and sexuality. Retakable w/chg in topic to 6 cr max. American politics course. Prereq: jr st

630 Budgeting and Finance in the Public Sector. 3 cr. U/G. Examination of the budgeting process in the public sector; development of skills in budgeting and financial management. Topics include capital budgeting, debt management, revenue forecasting, and auditing. Jointly-offered w/& counts as repeat of UrbPlan 630. American politics course. Prereq: sr st or cons instr

700 (875) Scope and Methods of Political Science I. 3 cr. G. Critical examination of the normative and empirical methodologies of political science. Prereq: grad st

701 (817) Techniques of Political Science Research. 3 cr. G. Introduction to basic techniques of collecting, coding, processing, analyzing, and presenting political data. Prereq: grad st; one undergrad stats course or cons instr

702 Advanced Techniques of Political Science Research. 3 cr. G. Advanced course in quantitative analysis stressing the application of econometric techniques to the study of politics. Prereq: grad st; Pol Sci 701(P)

704 Seminar in Non-Profit Organizations. 3 cr. G. Overview of structure, functions, and governance of non-profit organizations. Comparison with government and for-profit organizations. Pol Sci 704, Sociol 704, & Urb Std 704 are jointly offered; they count as repeats of one another. Prereq: grad st

705 Professionals and Volunteers in Nonprofit Organizations. 3 cr. G. Seminar in techniques of management of professionals and volunteers in nonprofit organizations. Prereq: grad st

711 Current Topics in Political Science: (Subtitled). 1-3 cr. G. This course will address a specific topic or methodological approach of general disciplinary importance. Retakable w/chg in topic & cons advisor & instr to 6 cr max. Prereq: grad st

720 Theoretical and Methodological Issues of Comparative Politics. 3 cr. G. Seminar on theory construction, research design, and the logic of comparative social inquiry. Prereq: grad st

725 Judicial Politics and Behavior. 3 cr. G. Readings in the field of judicial politics and behavior, with particular attention to decision making in collegial courts and to scientific methods of analysis. Prereq: grad st

727 Seminar in Constitutional Law. 3 cr. G. Major trends in constitutional case law and in critical analysis of the role of the court in american democracy. Prereq: grad st; cons instr

749 Seminar in American Political Institutions. 3 cr. G. Overview of political institutions including executives, legislatures, bureaucracies, courts, interest groups and others and the role they play in the political and policy process. Prereq: grad st

750 Seminar in the Study of American Political Behavior. 3 cr. G. Readings and research on a broad range of topics related to political behavior. Concentration on the political science literature on mass political behavior with some attention to the behavior of political elites. Prereq: grad st

751 Seminar in Public Policy Formation. 3 cr. G. An examination of the nature and consequences of constraints upon policy-makers in political institutions. Prereq: grad st

763 Scope and Dynamics of Public Administration. 3 cr. G. Intensive examinarion of the field of public administration, including organization theory, public management, the politics of administration, and the role of government in policy making. Prereq: grad st

765 Quantitative Analysis for Public Administration and Public Policy. 3 cr. G. Includes methods of quantitative analysis of empirical data. Bivariate and multivariate statistical techniques as applied to problems of public administration. Prereq: grad st; undergrad statistics course or cons instr

769 Analyzing and Evaluating Public Policies and Programs. 3 cr. G. Examination of methods, including cost-benefit analysis and decision analysis, that aid policy makers and administrators in understanding and assessing public and nonprofit sector policies and programs. Prereq: grad st

789 Theory and Role of Nonprofit Organizations. 3 cr. G. Graduate-level introduction to nonprofit administration, including an examination of the role of the nonprofit sector in contemporary society. Prereq: grad st

814 Major Political Theorists: (Subtitled). 3 cr. G. Consideration of selected political theorists, periods, or traditions. Attention given to issues of textural interpretation, historical context, and conceptual analysis. Retakable w/chg in topic to 6 cr max. Prereq: grad st

815 Problems in Political Theory: (Subtitled). 3 cr. G. Selected concepts and controversies in the historical and contemporary literature of political theory, such as authority, obligation, equality, justice and the explanation of human conduct. Retakable w/chg in topic to 6 cr max. Prereq: grad st

816 Seminar in Positive Political Theory: (Subtitled). 3 cr. G. Selected topics in rationality-based approaches to the study of politics. Retakable w/chg in topic to 6 cr max. Prereq: grad st; Pol Sci 817(P) & 875(P)

817 Feminist Theory and Politics. 3 cr. G. Examination and analysis of historical and theoretical aspects of feminist theory and politics including liberal, cultural, radical, postmodern, and queer political theory. Prereq: grad st

818 Theories of International Political Economy. 3 cr. G. Analysis of major political theories of international economic relations. Examine international political economy issues in industrial developing, and communist countries. Prereq: grad st; intro courses in Econ & Intlrel

819 Seminar in International Organizations. 3 cr. G. Course examines the structure, functions, and politics of international organizations, including the U.N., regional organizations, and nongovernmental organizations. Prereq: grad st; cons instr

855 Comparative Urban Politics. 3 cr. G. Examination of critical roles, structures, and processes of urban politics in different cultural settings. Selected to facilitate comparisons between the urban political process in developed and underdeveloped nations. Prereq: second semester grad student

876 Scope and Methods of Political Science II. 3 cr. G. Problems of research design and empirical methodology. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee assessed for 1 cr. Prereq: grad st

913 Seminar in Urban Political Process. 3 cr. G. Analysis of the forces and processes that shape urban political life, with particular emphasis on patterns of government, political culture, power structures, and civic participation in urban and metropolitan communities. Pol Sci 913 & Urb Std 913 are jointly-offered; they count as repeats of one another. Prereq: grad st

914 Seminar in Intergovernmental Relations. 3 cr. G. To deepen the understanding of policy issues in intergovernmental relations and the complex governmental context in which Americans live and work. Prereq: grad st

916 Seminar in State Politics. 3 cr. G. Research in state political processes and policy problems, with special reference to state-urban relationships. Prereq: grad st

921 Public Service Administrative Internship. 3 cr. G. This course combines a supervised field placement in a governmental agency or non-profit organization with class sessions and assignments designed to augument the work experience. Prereq: grad st; cons instr

923 Seminar in Political Socialization. 3 cr. G. Research seminar in the acquisition of political orientations. Prereq: grad st

926 Seminar in the Legislative Process. 3 cr. G. Analysis of the legislative process and the role of the legislature in the political system and research in legislative behavior. Prereq: grad st

927 Research on the Presidency. 3 cr. G. Review of classic and recent work presenting conceptual models for viewing the presidency, theories of the presidency and empirical studies relevant to the presidency. Prereq: grad st

929 Seminar in Voting Behavior. 3 cr. G. Voter decision making within and between elections. Prereq: grad st

935 Seminar in Advanced Political Science Methodology. 3 cr. G. An advanced seminar in selected topics on political science methodology. Prereq: grad st; Pol Sci 817(P)

950 Seminar in Comparative Politics: Western Nations. 3 cr. G. - Prereq: grad st

951 Seminar in Russian and Eastern European Politics. 3 cr. G. Selected aspects of Russian and eastern European politics. Prereq: grad st

952 The Politics of Developing Nations: (Subtitled). 3 cr. G. Variable content course. Retakable w/chg in topic to 6 cr max. Prereq: grad st

953 Seminar in American Foreign Policy. 3 cr. G. Analysis-in-depth of selected issues in the formulation and execution of American foreign policy, emphasizing recent problems, changes in world conditions, and methods of studying American policy. Prereq: grad st

956 Political Culture and Behavior: Industrial Nations. 3 cr. G. Political culture and mass political behavior in industrialized societies, including theories of ideology, multiculturism, and political parties. A data-based paper is required. Prereq: grad st; Pol Sci 817(P) or equiv prep in statistics

958 Seminar in Public Administration: (Subtitled). 3 cr. G. Selected topics covering different aspects of public administration. Retakable w/chg in topic to 9 cr max. Prereq: grad st

959 Capstone Seminar in Public Administration. 3 cr. G. Seminar in public administration focusing on administrative ethics and applied research. Requires written and oral presentation of research project. Prereq: grad st; completion of MPA core curriculum

960 International Conflict. 3 cr. G. Examines positive theories and quantitative research pertaining to causes and resolution of international conflict. Prereq: grad st

961 International Political Theory. 3 cr. G. The study of the moral and political philosophy of international relations. Prereq: grad st

963 Seminar in Judicial Process and Behavior. 3 cr. G. - Prereq: grad st

964 Seminar in Constitutional Politics. 3 cr. G. Various approaches to the study of constitutional politics, including law as ideology, noninterpretivism, originalism, and departmentalism. Prereq: grad st; Pol Sci 727(P)

965 Municipal Management. 3 cr. G. The political, social, and economic contexts in which the urban manager functions, with an emphasis on managing municipal service delivery and resources. Pol Sci 965 & Urb Std 965 are jointly offered; they count as repeats of one another. Prereq: Grad st

972 Interest Groups and Public Policy. 3 cr. G. Research seminar in the formal and informal role of interest groups in policy development enactment, and administration access and tactics of political pressure, analysis of private and public power relationships. Prereq: grad st

973 Political Parties. 3 cr. G. Selection of problems and design of research on the organization and processes of political parties. Prereq: grad st

974 Seminar in Politics and Public Policy. 3 cr. G. Research in the formulation and execution of public policy in a democratic society. Prereq: grad st

975 Seminar in Policy Analysis in States and Communities. 3 cr. G. Research seminar in micro and macro level explanations of public policy. Data paper required. Prereq: grad st; cons instr

976 Seminar in Comparative Public Policy. 3 cr. G. An examination of the major theories and methods in comparative public policy. The class uses the comparative method to analyze substantive public policies (e.g. welfare, health care). Prereq: grad st; Pol Sci 702(R) & 720(R)

990 Research and Thesis. 1-3 cr. G. - Prereq: grad st; cons instr

999 Independent Work. 1-3 cr. G. Individual work directed by a member of the graduate faculty. Prereq: grad st & cons instr

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Political Science.

International Studies 550 Senior Seminar in International Studies; (Suttitle - Collective Violence and the State). 3 cr, U/G.

Urban Studies 911 Urban Development and Redevelopment. 3 cr, G.

PSYCHOLOGY

College of Letters and Science

Degrees Conferred: MS, PhD in Psychology
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Web: www.uwm.edu/Dept/Psychology/

The Department of Psychology offers doctoral training in clinical and experimental psychology and master's-level training in two specialties: health psychology and behavior analysis. Within experimental psychology, training is offered in the areas of physiological psychology/neuroscience, conditioning and learning, cognition and perception, social psychology, and developmental psychology. The Department refers students interested in counseling psychology, guidance, and school psychology to the Department of Educational Psychology in the School of Education.

Students seeking the PhD may apply for admission to either the clinical or the experimental doctoral program. Transfer from clinical to experimental, or vice versa, requires reapplication to the Department of Psychology. Beginning students without master's degrees are accepted at the master's level, where they must first complete requirements for a master's degree, following the general psychology track. Students who have earned a master's degree elsewhere are admitted at the doctoral level, provided that a thesis has been completed. Although it is possible for the academic portion of the doctoral program to be completed in four years, many students, particularly in the clinical program, require five or more years. Students are expected to be enrolled full time and to earn their PhD's within seven years of initial enrollment, exclusive of the one-year internship required in the clinical program.

Students seeking master's-level training only may apply for either the health psychology or the behavior analysis specialties. Transfer from health psychology to behavior analysis, or vice versa, requires reapplication to the Department of Psychology. It is possible to complete requirements for the MS in two or three years of full-time study. Part-time study is allowable, as long as the MS is earned within seven years of enrolling.

Students may not earn more than two degrees from the Department of Psychology. Therefore, students who earned a bachelor's degree in psychology from UW-Milwaukee are not eligible to apply for admission to the doctoral program unless they earned a master's degree in psychology elsewhere.

All students are expected to know the facts, methodologies, and theories of psychology, and special emphasis is placed on developing research competence. Students receive training at the Department's research laboratories and clinic. Additionally, UWM's metropolitan location offers access to many off-campus sites, including the VA Medical Center, Milwaukee Children's Hospital, and the Medical College of Wisconsin.

Graduate Faculty

PROFESSORS

Adesso, Vincent J., Ph.D., University of Arizona
Helmstetter, Fred J., Ph.D., Dartmouth College
Hynan, Michael T., Ph.D., University of Iowa
Moore, John C., Ph.D.,University of California-San Diego
Passman, Richard H., Ph.D., University of Alabama

ASSOCIATE PROFESSORS

Davies, W. Hobart, Ph.D., Michigan State University
Dermer, Marshall L., Ph.D., University of Minnesota
Fleming, Raymond, Ph.D., Uniformed Services University of the Health Sciences
Lima, Susan D., Ph.D., University of Massachusetts-Amherst
Osmon, David C., Ph.D., University of South Dakota
Reddy, Diane M., Ph.D., Uniformed Services University of the Health Sciences
Ridley, Robyn, Ph.D., University of Missouri-Columbia
Swain, Rodney A., Ph.D., University of Southern California, Chair
Woods, Douglas, Ph.D., Western Michigan University

ASSISTANT PROFESSORS

Greene, Anthony J., Ph.D., Boston College
Hessling, Robert, Ph.D., Iowa State University
Kanter, Jonathan, Ph.D., University of Washington
Klein-Tasman, Bonita, Ph.D., Emory University
Moyer, James, Ph.D., Northwestern University
Roberts, Nicole, Ph.D., University of California - Berkeley

Master of Science in Psychology

Application
Application must be made to both the Graduate School and the Department of Psychology. In addition to materials required by the Graduate School, the applicant should send — or have sent — to the Graduate Admissions Committee of the Department of Psychology, transcripts of all undergraduate and previous graduate work (although the Graduate School requires official copies, the Department accepts unofficial copies); GRE examination scores; letters of recommendation; and the completed departmental application form. Applicants are admitted only at the beginning of each academic year. Applications should be submitted by December 31 for the most favorable consideration.

Admission
An applicant must meet Graduate School requirements plus the following departmental requirements to be considered for admission to the program:

- The completion of an undergraduate major in psychology.
- Submission of scores on the General Test and the Subject Test of the Graduate Record Examination.
- Positive recommendation by the Admissions Committee.

Admission is based on evaluations of an applicant's entire record. In evaluating each application, the Admissions Committee examines such factors as test scores, courses taken, involvement in independent research and study projects, and letters of recommendation.

Students without an undergraduate major in psychology may be considered for admission provided the following courses are completed: introductory statistics, a laboratory course in research methods of psychology, and an advanced laboratory course in psychology. Students with one of these courses may be admitted, but the two remaining courses must be completed within three semesters of enrollment. No course credits earned in making up deficiencies may be counted as program credits required for the degree. Students satisfying only this very minimal requirement should understand that additional work may be required to enroll in specific graduate-level courses.

Advising and the Major Professor
Graduate School and departmental regulations require students to have a major professor to direct their research activities. It is important for students to start their research early in their graduate studies, and students are encouraged to secure a major professor as early as possible. Students may be assigned to a major professor they have chosen during the admissions process, or they may be admitted and assigned temporarily to the Graduate Program Coordinator, until they are able to find a permanent major professor who matches their research interests.

Before the end of the second semester, the student must form an advisory committee of three departmental faculty members, including the student's major professor. Students are free to change their major professor at any time. The Department also provides a Graduate Program Coordinator, who advises about courses and program requirements and who approves programs of study. The Department's Graduate Program Coordinator is also available to help an incoming or continuing student without a major professor to choose one, and to help students who wish to change their major professors to find new ones.

Credits and Courses
There are three options: (1) the general psychology track, which is for students admitted to the doctoral program in experimental or clinical psychology; (2) the specialty in health psychology; and (3) the specialty in behavior analysis.

General Psychology Track

Students are admitted to the general psychology track with the understanding that they will be continuing in the doctoral program. The minimum requirement for the MS is 26 graduate credits of psychology, 20 of which must be earned in formal coursework (excluding practica) and 6 of which must be earned through an acceptable thesis.

Thesis
The student, under the direction of an advisor, must develop an acceptable thesis based on empirical research. The student must pass an oral examination in defense of the thesis.

Time Limit
The student must complete all degree requirements within three years of initial enrollment.

Specialization in Health Psychology

The specialization in health psychology offers training in research and theories relevant to health promotion, stress and its management, the patient in the treatment setting, management of pain, and management of chronic illness, as well as causes and consequences of disorders such as coronary heart disease, stroke, cancer, and arthritis. The program of studies consists of core health psychology coursework, research coursework, psychology breadth coursework, and an optional field placement.

Course of Study
The course of study consists of at least 36 credits, distributed as follows:

Twelve credits are required in core health psychology courses. All students must take 955 (Seminar in Health Psychology). Students must also choose any three of the following courses:

754 Proseminar in Biological Psychology
756 Psychophysiology
711 Current Topics in Psychology: Psychopharmacology
833 Neuropsychology
854 Behavioral Neuroscience
954 Seminar in Physiological Psychology

Research coursework consists of 15 credits, including

510 Advanced Psychological Statistics
610 Experimental Design
932 Seminar in Evaluation Research
and 6 credits of 790 Master's Research.

Breadth coursework consists of 9 credits, chosen from among the following:

705 Information Processing
706 Psychology of Language
707 Psychology of Reading
712 Introduction to Clinical Psychology
714 Conditioning and Learning
741 Systems of Psychotherapy
912 Seminar in Psychopathology
914 Seminar in Learning
915 Seminar in Operant Behavior
919 Seminar in Learning Theory
930 Seminar in Social Psychology
931 Seminar in Interpersonal Attraction
934 Social Psychology of Gender
940 Seminar in Short-term Psychotherapy
960 Seminar in Child Psychology
961 Seminar in Child Clinical Psychology
980 Seminar in Aging

The MS specialty in health psychology emphasizes the application of psychological theories to health-related issues. Although students are exposed to theories and applications in coursework, the field placement option offers a further opportunity to learn by doing. Students are encouraged to take at least 3 credits of 812 (Field Placement in Psychology) in their area of interest.

Computer Literacy
The student must demonstrate proficiency in basic computer literacy (word processing, spreadsheets, statistical packages, and graphics packages) by passing an examination or completing a relevant course with a grade of at least B.

Thesis or Project
The student, under the direction of an advisor, has the option of developing either an aceptable thesis based on empirical research or an acceptable project (a review or theoretical paper). In either case, students must demonstrate their ability to formulate a research idea and pursue indepenent and original investigation. The student must pass an oral examination in defense of the thesis or project.

Time Limit
The student must complete all require-

ments within seven years of initial enrollment.

Specialization in Behavior Analysis

Behavior analysis emphasizes environmental control of the individual organism. The specialization in behavior analysis introduces students to this science and its application through coursework in conceptual foundations, basic principles, and research methods. Students may focus on either basic or applied research, and conduct either laboratory or field research.

Course of Study
The course of study consists of at least 31 credits, distributed as follows:

Thirteen credits in behavior analysis, which must include

502 Applied Behavior Analysis
714 Conditioning and Learning
711 Current Topics in Psychology: Proseminar in Behavior Analysis

Students must also choose one of the following:

914 Seminar in Learning
915 Seminar in Operant Behavior
or
919 Seminar in Learning Theory

Nine credits in research methods coursework:

510 Advanced Psychological Statistics
610 Experimental Design
620 Single-Subject Research Methods

Nine credits in 790 Master's Research

Thesis
The student, under the direction of an advisor, must develop an acceptable thesis based on empirical research. The student must pass an oral examination in defense of the thesis.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment.

Doctor of Philosophy in Psychology

Admission
A master's degree in psychology that includes a thesis derived from empirical research is a prerequisite for admission to the doctoral level of the graduate program. Students who receive their master's degree in the general psychology track at UWM have satisfied this requirement and are advanced to the doctoral level of the program given the positive recommendation of the Department. Students with other master's degrees in psychology must meet general Graduate School requirements and departmental requirements as given for admission to master's-level study. If a thesis has not been completed as part of the master's degree, the student must complete the equivalent of a thesis before being designated a doctoral-level student.

Advising and the Major Professor
As with master's level study, Graduate School and departmental regulations require students to have a major professor to direct their research activities. It is important for students to start their research early in their graduate studies, and students are encouraged to secure a major professor as early as possible. Students who have earned a UWM master's degree may continue with the same major professor, but this is not required. Entering students may be assigned to the major professor they have chosen during the admissions process, or they may be admitted and assigned temporarily to the Graduate Program Coordinator, until they are able to find a permanent major professor who matches their research interests.

In any case, before the end of the second semester the student must form an advisory committee of five faculty members, including the student's major professor. Doctoral level students are free to change their major professor at any time. The Department also provides a Graduate Program Coordinator, who advises about courses and program requirements and who approves programs of study. The Department's Graduate Program Coordinator is also available to help an incoming or continuing student without a major professor to choose one, and to help any student who wishes to change his/her major professor to find a new one.

Course of Study
The minimum degree requirement is 54 graduate credits beyond the bachelor's degree, at least 27 of which must be earned in residence at UWM.

1. **Departmental doctoral curriculum**. Only departmental courses numbered 700 or above and a few departmentally designated undergraduate/graduate courses including 510 and 610 are included in the doctoral curriculum. These courses cover eight areas of study: clinical psychology; physiological psychology; conditioning and learning; cognition and perception; social; developmental; quantitative; and history and systems. The curriculum in each area typically consists of a core course plus advanced courses having the core course or equivalent preparation as a prerequisite. Specialties such as health psychology, clinical neuropsychology, and behavior analysis result from specific formal courses and related research/practical experiences. Professional matters of concern including ethics are integrated in coursework throughout the curriculum and are additionally covered in the Department's colloquium series which all students must attend.

2. **Majors and intra-departmental minors**. In consultation with their advisory committees, students establish major and intra-departmental minor areas of study. A major is a program of integrated study, including a minimum of three graduate-level courses (9 credits; e.g., the core course and two advanced courses) and research experiences. An intra-departmental minor consists of a minimum of two graduate-level courses (6 credits; e.g., the core course and one advanced course) in an area other than the major. Research and practicum credits do not count toward formal course requirements for the major or intra-departmental minor.

   Students in the clinical program

satisfy their major by completing a sequence of required courses, including professional ethics, issues, and research methods in clinical psychology; developmental psychopathology; systems of psychotherapy; two courses in assessment; and empiricaly supported interventions. Students in the clinical program complete one intra-departmental minor in addition to their major.

In addition to classroom courses, students majoring in clinical psychology must also complete: a sequence of practicum courses for a minimum of 400 hours of training in assessment, diagnosis, therapy, and professional practice; and later a pre-doctoral, extramural, full-time (2000 hrs.) internship.

Students in the experimental program must choose a major in one of the following areas: physiological psychology/neuroscience; cognition and perception; conditioning and learning; social psychology; and developmental psychology. Students admitted into to the experimental program may not major in clinical psychology. Experimental students complete two intra-departmental minors in addition to their major.

Clinical and experimental students may establish intra-departmental minors in the areas listed above as major areas within the experimental program. Experimental students may also have an intra-departmental minor in psychopathology by completing courses in the clinical area that do not require practicum experience. Students may establish an intra-departmental minor in quantitative methods with the approval of their committee and the faculty in this area.

3. **Statistics, research design, and history/systems of psychology requirement.** All students must complete advanced statistics (510), experimental design (610), and one course from the history and systems area.
4. **Breadth requirement.** Experimental students must complete at least one course from four of the seven areas of the doctoral curriculum. Clinical students follow American Psychological Association (APA) requirements and complete one course from each of the following doctoral curriculum areas: physiological; social; cognition or conditioning/learning; and developmental/personality/psychopathology. Coursework in the major and intra-departmental minor areas counts toward these breadth requirements.
5. **Foreign language/research skill requirement.** Students must demonstrate their competence in either a foreign language or a research skill.
6. **Extra-departmental minors** (required for experimental students; optional for clinical students). Experimental students must, and clinical students may complete, in another department, a coherent program of at least 8 graduate credits (undergraduate/graduate courses apply) relevant to but not substantially overlapping coursework in the Department must be completed in another department. The program is planned in consultation with a professor in the other department who agrees to serve as the student's advisor for the minor. This faculty member is usually on the student's doctoral committee, and documents that the extra-departmental requirement has been satisfied. Computer science or foreign language coursework other than that used to satisfy the foreign language/research skill requirement may be applied to this requirement.
7. **Additional course requirements** (clinical students only). Clinical students must complete a course in muticultural counseling issues and two advanced research methods courses.

Residence
The student must meet minimum Graduate School residence requirements. Please note the requirement of earning at least 27 graduate credits at UWM after attaining doctoral student status. For more information on residence requirements, see the Graduate Student and Faculty Handbook.

Doctoral Preliminary Examination
Students must pass a doctoral preliminary examination to qualify for formal admission to candidacy for the degree. Students begin the examination only after their preparation has been reviewed by the Department's Graduate Program Committee. For experimental students, the examiniation covers the departmental major and minor(s). For clinical students the examination focuses on the departmental major.

Clinical Internship Requirement
After the doctoral preliminary examination has been passed, clinical students are eligible to begin a required extramural, one-year, full-time (2,000 hrs.) internship.

Dissertation Defense
The candidate must write a dissertation that demonstrates the ability to formulate a research topic and pursue independent and original investigation.

Final Oral Examination
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation.

Time Limit
The student must complete all degree requirements within seven years of initial enrollment (four years if entering with a master's degree), excluding internship.

For additional information on Graduate School Ph.D. requirements, see the PhD section of the Graduate Student and Faculty Handbook.

Courses

Psychology (PSYCH)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored programs before course work level, content and credits are determined

and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

502 Applied Behavior Analysis. 4 cr. U/G. Learning and motivation of human behavior in applied settings. Lab work in community agencies using operant methods, behavior modification, programmed instruction, AV systems. Lec, Lab. Prereq: jr st; Psych 325(P)

503 Perception. 3 cr. U/G. The nature of perception and its relation to environmental and internal processes. Systems course. Prereq: jr st; 9 cr in psych

505 Cognitive Processes. 4 cr. U/G. Human information processing, emphasizing vision and language. Topics: pattern recognition; sensory-specific memory systems, short- and long-term; modern approaches to mental imagery and operations. Lec, lab. Prereq: jr st; Psych 325(P)

510 Advanced Psychological Statistics. 3 cr. U/G. Topics include probability and sampling theory, correlational methods, and nonparametric techniques. Foundations course. Prereq: jr st & Psych 210(P); or grad st

514 Conditioning and Learning. 4 cr. U/G. Principles of conditioning and learning. Lec, Lab. Prereq: jr st; Psych 325(P)

550 History of Psychology. 3 cr. U/G. The important philosophical and scientific antecedents of contemporary psychology. Systems course. Prereq: jr st; 9 cr in psych

551 Learning and Motivation Theories. 3 cr. U/G. Contemporary psychological theories, with special emphasis on theories of learning. Systems course. Prereq: jr st; 9 cr in psych

565 Methods of Behavior Control. 3 cr. U/G. Experimental analysis of behavior, with emphasis on the techniques of operant conditioning. Foundations course. Prereq: jr st; Psych 101(P)

609 Motivation. 3 cr. U/G. Systematic analysis of reinforcement, drive, arousal, and recent neurophysiological research related to motivation and emotion. Systems course. Prereq: jr st; Psych 254(P) or cons instr

610 Experimental Design. 3 cr. U/G. Design and analysis of single and multifactor experiments; tests for trends; multiple comparisons. Foundations course. Prereq: jr st & Psych 210(P); or grad st

611 Current Topics: (Subtitled). 1-4 cr. U/G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Foundations course. Retakable w/chg in topic to 9 cr max. Prereq: jr st

620 Single-Subject Research Methods. 3 cr. U/G. A review of single-subject research methods. Foundations course. Prereq: jr st & Psych 325(P), or grad st; or cons instr.

654 Advanced Physiological Psychology. 4 cr. U/G. Advanced topics in physiological psychology. Lec, Lab. Prereq: jr st; Psych 254(P) & 325(P)

660 Experimental Child Psychology. 4 cr. U/G. Experimental investigation of child behavior and development. Lec, Lab. Prereq: jr st; Psych 260(R) & 325(P)

677 Experimental Social Psychology. 4 cr. U/G. Experimental investigation of social behavior. Lec, Lab. Prereq: jr st; Psych 230(R) & 325(P)

680 Psychology of Aging. 3 cr. U/G. Extension of principles of general psychology to the process of aging. Systems course. Prereq: jr st; Psych 325(P) or cons instr

685 Seminar on Writing in Psychology. 3 cr. U/G. Review and practice of various forms of psychological writing, emphasizing clear communication with various classes of readers, e.g., other researchers, grant proposal reviewers, lay people. Foundations course. Satisfies L&S Seminar req. Prereq: jr st & Psych 325(P), or grad st; or cons instr.

702 (effective 01/24/2005) Applied Behavior Analysis. 3 cr. G. Use of learning principles and procedures to solve behavior problems. 3 hrs lec, 1 hr dis. Prereq: grad st

705 Information Processing. 3 cr. G. Introduction to cognitive psychology from an information processing perspective. Core course in cognition for the cognition/perception area. Prereq: grad st

706 Psychology of Language. 3 cr. G. An overview of the cognitive processes involved in language comprehension. An advanced course in cognition for the cognition/perception area. Prereq: grad st; some background in Linguis or cognitive psych recom, e.g. Psych 705(R)

710 Survey of Clinical Research Methods. 3 cr. G. Various research methods in clinical psychology. Prereq: grad st

711 Current Topics in Psychology: (Subtitled). 1-4 cr. G. Specific topics and any additional prerequisites will be announced in the schedule of classes each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st

712 Professional Ethics, Issues, and Research Methods in Clinical Psychology. 3 cr. G. Introduction to clinical practice and research. Prereq: grad st

714 Conditioning and Learning. 3 cr. G. Principles of classical conditioning and instrumental learning. 3 hr lec, 1 hr dis Prereq: grad st

724 Proseminar in Behavior Analysis. 3 cr. G. A review of conceptual, methodological, and professional issues associated with the science and application of behavior analysis. Prereq: grad st

741 Systems of Psychotherapy. 3 cr. G. Introduction to psychotherapies: origins, orientations, procedures, and empirical support. Prereq: grad st

742 Empirically-Supported Interventions. 3 cr. G. Research-supported therapy protocols for a variety of behavioral disorders; didactic instruction and role-play practice/feedback. Prereq: grad st; some background in psychopathology & systems of psychotherapy recom

750 The History of Psychology. 3 cr. G. Examination of the grounding of modern psychological theory and practice in the history of western culture. 3 hrs lec, 1 hr dis. Not open to students with cr in Psych 550(ER). Prereq: grad st

754 Proseminar in Biological Psychology. 3 cr. G. Overview of current topics in neuroscience including neuropsychopharmacology, neuropsychology, psychophysiology, and behavioral medicine. Prereq: grad st

756 Psychophysiology. 4 cr. G. Experimental investigation of physiological factors in behavior. 3 hrs Lec; 3 hrs Lab. Not open to students with cr in Psych 656(ER). Prereq: grad st

760 (effective 01/26/2005) Experimental Child Psychology. 3 cr. G. Investigation of experimental research relating to infant and child behavior. Lec, Lab, Dis. No cr for students w/cr in Psych 660(ER). Prereq: grad st

760 Experimental Child Psychology. 3 cr. G. Investigation of experimental research relating to infant and child behavior. Lec, Lab, Dis. No cr for students w/cr in Psych 660(ER). Prereq: grad st

790 Masters Research. 1-6 cr. G. - Retakable. Prereq: grad st & cons advisory committee

791 Project in Psychology. 3 cr. G. Independent research with a faculty member to fulfill the master's thesis requirement for incoming students with a master's degree without a thesis. Prereq: grad st; cons advisory committee

799 Advanced Independent Study. 1-6 cr. G. - Retakable w/chg in topic. Prereq: grad st & sponsorship by a faculty member

802 First-Year Clinical Psychology Practicum. 3 cr. G. Administration of psychological tests to clinic clients; interviewing, contact with referred sources, feedback of test results to clients, written reports and co-therapy with experienced therapist. Prereq: grad st; clinical training prog; cons instr

811 Community Placement in Clinical Psychology. 3 cr. G. Specific agency and additional prerequisites announced in the schedule of classes each time the course is offered. Retakable w/chg of placement to 9 cr max. Prereq: grad st; cons instr & placement supervisor

812 Field Placement in Psychology. 3 cr. G. - Retakable for cr. Prereq: grad st; cons instr & placement supervisor

821 (effective 01/24/2005) Practicum in Assessment I. 3 cr. G. Practical experience utilizing techniques used in Assessment I (Psych 831). Prereq: grad st; Psych 712(P), 801(P), 912(P); clinical training prog. Conc reg Psych 831(C) by clinical Psych students

821 Practicum in Objective Clinical Assessment. 3 cr. G. Practical experience utilizing techniques used in objective clinical assessment course (Psych 831). Prereq: grad st; Psych 712(P), 801(P), 912(P); clinical training prog. Conc reg Psych 831(C) by clinical Psych students

822 (effective 01/24/2005) Practicum in Assessment II. 3 cr. G. Practical experience utilizing techniques used in Assessment II (Psych 832). Prereq: grad st; Psych 821(P); clinical training prog. Psych 832(C) by clinical psych students

822 Practicum in Projective Clinical Assessment. 3 cr. G. Practical experience utilizing techniques used in projective clinical assessment course. Prereq: grad st; Psych 821(P); clinical training prog. Psych 832(C) by clinical psych students

823 Practicum in Neuropsychological Assessment. 1 cr. G. Practical experience utilizing techniques used in neuropsychological assessment course (Psych 833). Clinical Psychology students, enrol conc in Psych 833(C). Prereq: grad st; Psych 802(P), 822(P), clinical training program

831 Assessment I. 3 cr. G. Objective techniques used in the appraisal of personality and intellectual processes. Prereq: grad st

832 Assessment II. 3 cr. G. Neuropsychological, child-focused, and projective techniques used in the appraisal of personality and intellectual processes. Prereq: grad st; Psych 831(P)

833 Neuropsychology. 3 cr. G. Anatomy, pathology, and neuropsychology of the higher brain functions in humans. Prereq: grad st

834 Seminar in Advanced Assessment: (Subtitled). 3 cr. G. Specific topics and any additional prerequisites will be announced in the Timetable each time the course is offered. Retakable w/chg in topic to 9 cr max. Prereq: grad st: Psych 831(P)

842 Practicum in Therapy. 4 cr. G. Supervised practicum experience with therapeutic techniques used in clinical psychology. Prereq: grad st; Psych 712(P)

844 Practicum in Clinical Supervision. 3 cr. G. Practicum to enhance theoretical and practical skills for supervising clinical work. Retakable to 12 cr max. Prereq: grad st; completion of all required clinical Psych courses & practica

845 Practicum in Empirically-Supported Interventions. 1-3 cr. G. Application of techniques learned in Psych 742 (Empirically-Supported Interventions). Retakable once to 3 cr max. Prereq: grad st; Psych 742(C)

854 Behavioral Neuroscience. 3 cr. G. Introduction to current research and theory regarding the neural basis of behavior. Not open to students who have cr in Psych 654(ER). Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Graduate Research. 1-6 cr. G. - Retakable. Prereq: grad st & sponsorship by a grad faculty member

911 Current Topics and Techniques in Clinical Psychology: (Subtitled). 3 cr. G. - Retakable w/chg in topic to 9 cr max for masters students & 12 cr max for doctoral students. Prereq: grad st

912 Developmental Psychopathology. 3 cr. G. Seminar on concepts and research in the scientific study of psychopathology across the lifespan Prereq: grad st

914 Seminar in Learning. 3 cr. G. - Prereq: grad st

915 Seminar in Operant Behavior. 3 cr. G. - Prereq: grad st

919 Seminar in Learning Theory. 3 cr. G. Graduate seminar; content varies. Prereq: grad st

930 Seminar in Social Psychology. 3 cr. G. - Prereq: grad st

932 Proseminar in Evaluation Research. 3 cr. G. In-depth examination of experimental and quasi-experimental methodologies for assessing the impact of social innovations; factors impeding implementation of such methodologies; utilization of available findings. Prereq: grad st

940 Seminar in Short-Term Psychotherapies. 3 cr. G. Examination of some important short-term psychotherapies in terms of their implementation appropriate psychopathological populations, history, and clinical and experimental research. Prereq: grad st

950 Seminar in the History of Psychology. 3 cr. G. - Prereq: grad st

954 Seminar in Physiological Psychology. 3 cr. G. - Prereq: grad st

955 Seminar in Social Psychology and Health. 3 cr. G. Theoretical and empirical contributions of social psychology to health. Prereq: grad st

960 Seminar in Child Psychology. 3 cr. G. - Prereq: grad st

961 (860) Seminar in Child-Clinical Psychology. 3 cr. G. Diagnosis, etiology, therapy, and research in child-clinical psychology are discussed and criticized. Prereq: grad st

980 Seminar in Aging. 3 cr. G. Contemporary issues in the Psychology of aging. Content varies, but emphasis is placed on the experimental analysis of behavioral processes in the older adult. Prereq: grad st

990 Doctoral Research. 1-6 cr. G. - Retakable. Prereq: grad st & admis to candidacy for Ph.D. degree

PUBLIC ADMINISTRATION

College of Letters and Science and School of Business Administration

Degree Presented Jointly: Master of Public Administration
Phone: (414) 229-4209 & (414) 229-4732
FAX: (414) 229-5021
E-mail: dihrke@uwm.edu
Web site: www.uwm.edu/Dept/MPA

The College of Letters and Science and the School of Business Administration offer and present jointly the Master of Public Administration (MPA). The program is designed to provide theoretical and practical preparation for careers in public and non-profit administration with three areas of concentration - municipal management, general public administration, and non-profit management.

MPA/MUP Program

A coordinated degree program has been designed to allow students to obtain both the Master of Public Administration and the Master of Urban Planning degrees concurrently.

This program is intended to combine professional training in planning with applied administrative and managerial skills. The MPA/MUP requirements are described later in this section.

Graduate Faculty

(Professors' home departments appear in parentheses)

PROFESSORS

Ethridge, Marcus, Ph.D. Vanderbilt University (Political Science)
Nystrom, Paul C., Ph.D., University of Minnesota (Business Administration)
Peracchio, Laura, Ph.D., Northwestern University (Business Administration)
Percy, Stephen, Ph.D., Indiana University (Political Science)
Ragins, Belle, Ph.D., University of Tennessee (Business Administration)
Yasai-Ardekani, Masoud, Ph.D., City University Business School, London (Business Administration)

ASSOCIATE PROFESSORS

Alwan, Layth C., Ph.D. University of Chicago (Business Administration)
Arnold, Patricia, Ph.D., University of Wisconsin-Madison, CPA (Business Administration)
Cheng, Rita H., Ph.D., Temple University, CPA, A.O. Smith Professor, Associate Dean-School of Business Administration
Ihrke, Douglas, Ph.D., Northern Illinois University (Political Science)
Lee, Mordecai, Ph.D., Syracuse University (Political Science)

ASSISTANT PROFESSOR

Rast, Joel, Ph.D., University of Oregon (Political Science)

Master of Public Administration

Admission
An applicant must meet Graduate School requirements and hold a bachelor's degree from an accredited college or university to be considered for admission.

There are no fixed prerequisites in terms of prior academic training; but background in public administration, American governmental institutions, economics, statistics, and computer applications in social science is beneficial. Each student's academic preparation is evaluated at the time of application. A personal interview may be required.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

The MPA program requirements to be considered for admission are:

- An undergraduate grade point average of at least 3.0 (4.0 scale).
- Three letters of recommendation from persons familiar with applicant's academic ability and achievement.
- Submission of scores on the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT).

Candidates seeking admission to the MPA/MUP program must apply to and be admitted to both programs. The requirements for admission to the MUP program are detailed in the Urban Planning section of this Bulletin.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at the time of admission should immediately contact the Program Director.

Credits and Courses
The Master of Public Administration degree requires satisfactory completion of 39-42 credits of prescribed graduate study and appropriate coursework.

Required courses

Minimum Grade Requirements in the Core Courses
In order to demonstrate mastery of the critical Core Course material, MPA students must achieve a grade point average of 3.0 in the six Core Courses, and, regardless of average, students must earn a grade of B- or better in each Core Course. If a grade of C+ or lower is earned in any Core Course, that course must be repeated in an effort to earn the minimum grade of B-. If the student's grade point average in the six Core Courses is below 3.0, the student must repeat one or more Core Courses in which a grade of lower than B was earned in an effort to establish a grade point average of 3.0 in the Core. (For purposes of this requirement, the grade point average for the Core Courses will be calculated on the basis of only the highest grade earned; that is, the grade earned in the first attempt at a Core Course will not be averaged with the grade earned in the repeat.)

Master of Public Administration - Degree Requirements

1. Required Core Courses (18-21 credits)

Students entering the MPA program will be placed, at the discretion of the MPA Director, in one of two tracks (A or B) within the core. The minimum degree requirement is 39 credits for Track A students and 42 credits for Track B students.

Bus Adm709	Data Analysis for Managers (3 cr)
Bus Adm738	Human Resource Management (3 cr)
Pol Sci/Urb Plan 630	Budgeting and Finance in the Public Sector (3 cr)
Pol Sci 763	Scope and Dynamics of Public Administration (3 cr)
Pol Sci 769	Analyzing and Evaluating Public Policies and Programs (3 cr)
Pol Sci 921	Public Service Administrative Internship (3 cr)
One seminar in organizational management and leadership (3 cr) selected from the following list:	
Bus Adm 443	Special Topics in Human Resources Management (3 cr)
Bus Adm 732	Transforming Organizations (3 cr)
Bus Adm 737	Managerial Decisions and Negotiations (3 cr)

Track A
Students with significant public or nonprofit sector work experience may, at the discretion of the MPA Director, have the Government/Nonprofit Administrative Internship course (Pol Sci 921) waived. Students seeking placement in this track will need to meet with the MPA Director to discuss this possibility and will be required to provide documentation of current public or nonprofit sector work experience.

Track B
Students with no significant public or nonprofit sector work experience are required to enroll in and successfully complete the Government/Nonprofit Administrative Internship course (Pol Sci 921). As part of the requirements for this course, Track B students are required to obtain, with the assistance of the MPA Director, one or more internships in either the public or nonprofit sector while enrolled in the MPA program.

2. Concentrations (18 credits)

Every student must select and complete the requirements for one of the following three concentrations:

1. Municipal Management (18 Cr)	
Bus Adm 428	Governmental and Nonprofit Accounting (3 cr)
Pol Sci 965	Municipal Management (3 cr)

Select two of the following five courses**:

Pol Sci 914	Seminar in Intergovernmental Relations (3 cr)
Urb Plan 651	Land Use Planning Practice (3 cr)
Urb Plan 683	Planning for Small Towns (3 cr)
Urb Plan 710	Planning Law and Land Use (3 cr)
Urb Plan 750	Special Topics in Land Use Law (3 cr)

**Other courses may be substituted with the approval of the MPA Director.

At least six additional elective credits selected by the student with the approval of the MPA Director that relate to the student's substantive interests within the discipline of public administration.

2. General Public Administration (18 Credits)	
Bus Adm 798	Strategic Planning in Public and Nonprofit Sectors (3 cr)
Comm 705	Communication for Professionals (3 cr)
Pol Sci 452	Administrative Law (3 cr)
Pol Sci 914	Seminar in Intergovernmental Relations (3 cr)

At least six additional elective credits selected by the student with the approval of the MPA Director that relate to the student's substantive interests within the discipline of public administration. Electives may include Bus Adm 794, Enterprise Integration modules, offered by the School of Business Administration.

3. Nonprofit Organization and Management (18 credits)	
Bus Adm 428	Governmental and Nonprofit Accounting (3 cr)
Bus Adm 766	Marketing for Nonprofit Organizations (3 cr)
OR	
Bus Adm 767	Services and Relationship Marketing (3 cr)
Bus Adm 798	Strategic Planning in Public and Non-profit Sectors (3 cr)
Pol Sci 789	Theory and Role of Nonprofit Organizations (3 cr)

At least six additional elective credits selected by the student with the approval of the MPA Director that relate to the student's substantive interests within the discipline of public administration. These credits may include seminars in the Health Care Management concentration, e.g., Bus Adm 756, Health Care Delivery Systems, Bus Adm 755, Health Care Administration, and Bus Adm 757, Managed Care and Integrated Health Networks.

3. Capstone Seminar (3 Credits)

Every student will be required to take the capstone seminar, Political Science 959 - Capstone Seminar in Public Administration. The course requirements will include the completion and written and oral presentation of a project on a topic selected with the assistance of the instructor. This course will also be devoted to coverage of special issues and problems of the public administration profession, including administrative ethics.

Total Degree Credits Required = 39-42 cr.

Thesis
Not required.

MPA/MUP Coordinated Degree Program
This program allows students to complete master's degrees in Public Administration and in Urban Planning concurrently. The coordinated degree requires 42-45 credits of required courses and completion of a concentration in Public Administration (18 credits). However, because some courses completed for the core requirements of the MUP also may count toward the MPA concentration, students may complete the dual degree with a minimum of 54-57 credits. The total number of credits will depend on the student's track and choice of concentration in public administration.

Required Courses in Urban Planning (27 credits)
UrbPlan 710 Planning Law and Land Use, 3 cr
UrbPlan 711 Planning Theories and Practice, 2 cr
UrbPlan 720 Urban Development Theory and Planning, 3 cr
UrbPlan 721 Applied Planning Methods, 3 cr
UrbPlan 740 Data Analysis Methods I, 3 cr
OR Bus Adm 709 Data Analysis for Managers, 3 cr
UrbPlan 741 Data Analysis Methods II, 1 cr
UrbPlan 791 Introduction to Urban Geographic Information Systems for Planning, 3 cr
UrbPlan 810 Planning Policy Analysis, 6 cr
UrbPlan 811 Applied Planning Workshop, 3 cr

Required Courses in Public Administration (18 credits)
Bus Adm 738 Human Resources Management, 3 cr
Pol Sci/UrbPlan 630 Budgeting and Finance in the Public Sector, 3 cr
Pol Sci 763 Scope and Dynamics of Public Administration, 3 cr
Pol Sci 921 Public Service Administrative Internship,* 3 cr
OR
UrbPlan 991 Legislative/Administrative Agency Internship, 3 cr
Pol Sci 959 Capstone Seminar in Public Administration, 3 cr

* The internship requirement will be waived for students with significant public sector work experience.

One seminar (3 cr) in organizational management and leadership selected from the following list:
Bus Adm 443 Special Topics in Human Resource Management, 3 cr
Bus Adm 732 Transforming Organizations, 3 cr
Bus Adm 737 Managerial Decisions and Negotiations, 3 cr

Concentration Requirement (18 credits)
Completion of all the requirements for one of the concentrations in Public Administration. A maximum of six credits of MUP core courses may be used as electives in the MPA concentrations.

Comprehensive Exam
Completion of the comprehensive exam in Urban Planning is required. (See Urban Planning section of this Bulletin.)

Time Limit
The student must complete all degree requirements within seven years of initial enrollment. Students in the MPA/MUP program are allowed up to seven years to complete all requirements for both degrees.

Graduate Certificate In Nonprofit Management

The Graduate Certificate in Nonprofit Management is designed to provide students with the knowledge and skills needed to successfully pursue or advance careers within nonprofit sector organizations.

Students wishing to earn a Graduate Certificate in Nonprofit Management must complete the required 15 graduate credit hours with an overall GPA of 3.00 or better. No student may complete all 15 credits within a single school or college. The curriculum consists of the following five courses:

Required Courses (12 credits)
One of the following three courses:
BusMgmt 718 - Concepts and Practice of Nonprofit Management (3 credits)
Poli Sci 789 - Theory and Role of Nonprofit Organizations (3 credits)
Sociol/Pol Sci/Urb Std 704 - Seminar in Nonprofit Organizations (3 credits)

Both of the following two courses:
BusMgmt 724 - Accounting for Nonprofit Organizations (3 credits)
BusMgmt 725 - Governance of Nonprofit Organizations (3 credits)

One of the following three courses:
BusMgmt 721 - Fundraising and Development for Nonprofit Organizations (3 credits)
Bus Adm 738 - Human Resource Management (3 credits)
Pol Sci 705 - Professionals and Volunteers in Nonprofit Organizations (3 credits)

Elective Course (3 credits) One graduate-level course selected from within the School of Business Administration, Master of Public Administration, or other UWM schools and colleges with the approval of the Program Director (3 credits)

Students wishing to pursue the Certificate in Nonprofit Management must submit an application to the Program before completion of six credits in the certificate sequence. There is a time limit of three years from initial enrollment for completion of the certificate program.

Those students who wish to earn the Graduate Certificate in Nonprofit Management can be admitted for the certificate program as non-degree graduate students provided they possess a bachelor's or higher degree with a minimum overall undergraduate grade point average of 2.75. Admission as a non-degree graduate student does not constitute admission to a master's degree program. Students may also pursue the certificate while enrolled in another graduate program or as a post-graduate student.

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Public Administration.

Political Science 911 Urban Development and Redevelopment, 3 cr, G.

Urban Planning 711 Planning Theories and Practice, 2 cr, G.

Urban Planning 791 Introduction to Urban Geographic Information Sys-

tems for Planning, 3 cr, U/G.

Urban Planning 792 Using Urban Geographic Information Systems (GIS) for Planning, 3 cr, G.

Urban Planning 793 Applied Projects in Urban Geographic Information Systems, 3 cr, G.

Urban Studies 731 Quantitative Analysis for Public Administration and Urban Research, 3 cr, G.

SOCIAL WORK

Helen Bader School of Social Welfare

Degree Conferred: Master of Social Work
Phone: (414) 229-4851
FAX: (414) 229-5311
Web site:
www.uwm.edu/SSW/sw/grad/index.html

The School of Social Welfare offers a program of graduate studies in social work. The mission of the MSW program is to provide scholarly leadership for the profession of social work through teaching, research, and service. Reflecting the metropolitan mission of UWM and the School of Social Welfare, the MSW Program particularly focuses on metropolitan social problems with a commitment to social and economic justice, cultural diversity, and the empowerment of individuals, families, groups, and communities to effect change. The primary MSW curriculum goals are to educate and train social work practitioners who demonstrate the values and ethics of the profession and who are competent for advanced specialized practice and scholarly pursuits at the MSW level. Additional goals for the social work programs are: to engage in the development and dissemination of social work and interdisciplinary research and discourse which addresses the prevention and amelioration of social and psychosocial problems; to address social and economic injustices by enhancing public understanding; and, to advocate for the prevention and resolution of contemporary social problems, particularly for populations at risk.

The two areas of specialized curriculum concentrations are: (1) Children and Families and (2) Physical and Mental Health. Within the concentration, students elect one of two practice methods areas: Direct Social Work Practice or Macro Practice, or they may elect to combine macro and direct practice by choosing double methods. Students may additionally complete one of two certificate programs: Marriage and Family Therapy, or School Social Work. The MSW program is accredited by the Council on Social Work Education and prepares students for state certification requirements. The School of Social Welfare offers students access to the University computer system, special interview training rooms, and specialized audiovisual materials.

Within the MSW Program, the Professional Foundation courses serve as the base for the concentrations of the Advanced Curriculum. Students enter into the Advanced Curriculum studies upon completion of the Professional Foundation requirements through course work or exemption. With careful faculty advising, students are able to develop a course of study that builds upon their individualized interests, experiences, and strengths. The full-time program is designed for completion within 2 years; the structured part-time program for completion within 4 years.

4-Year Part-Time MSW Program
The structured 4-year part-time MSW program provides students with the opportunity to complete their degree requirements on a part-time enrollment basis. Applicants for this program must meet general Graduate School and MSW admission requirements, and are required to complete the MSW degree within the four-year period, taking a minimum of 2 courses per semester of enrollment. The part-time program conforms to all course sequencing requirements of the full-time program. Full- and part-time students are required to follow prescribed sequencing of course work.

Specialized Concentrations

Students are required to select a specialized area of concentration for the advanced curriculum studies.

Children and Families
The social work profession has a long history of commitment to ensuring the welfare of children. Furthermore, professionals recognize the family system as being significant in the lives of children and other members, but that it represents a significant social institution, essential to communities and to society as a whole. Many of the strengths and challenges experienced by vulnerable populations emanate from and, in turn, influence the family system. This concentration focuses on the study of family systems, child and family welfare, interventions to enhance the lives of children and families, and specific issues facing today's children and families (e.g., substance abuse, poverty, violence, etc.). Students enrolled in this concentration develop the advanced practice knowledge and skills necessary to provide services to children and families in a wide variety of settings. Certificate programs in Marriage and Family Therapy and School Social Work are offered within this concentration.

Physical and Mental Health
The physical and mental health concentration is designed to prepare students for advanced practice in a variety of settings, including hospitals, nursing homes, health planning agencies, public and private mental health agencies. This concentration exposes students to the issues and technologies appropriate to the delivery of services to individuals and families, small groups, and the community, including preventative health care education. Course work provides students with an understanding of a range of chronic and acute physical and mental disorders — including substance abuse and violence-related concerns — and the roles of public and private organizations in the delivery of health related services.

Graduate Faculty

PROFESSORS

Begun, Audrey L., Ph.D., University of Michigan
Keigher, Sharon M., Ph.D., University of Chicago
McMurtry, Steven, Ph.D., University of Wisconsin-Madison
McNeely, R.L., Ph.D., Brandeis University
Montgomery, Rhonda, Ph.D., University of Minnesota
Zweben, Allen, D.S.W., Columbia University

ASSOCIATE PROFESSORS

Berg, William E., Ph.D., University of Wisconsin-Madison
Jones, Joan, D.S.W., University of California-Berkeley
Kadushin, Goldi, Ph.D., University of Illinois-Chicago
Lie, Gwat-Yong, Ph.D., University of Wisconsin-Madison
Lowery, Christine, Ph.D., University of Washington
Padgett, Deborah, Ph.D., Washington University, Chair
Rose, Susan, Ph.D., University of Illinois-Chicago
Torres, Jose, Ph.D., University of Wisconsin-Milwaukee

Master of Social Work

Admission
Application must be made to both the Graduate School and the School of Social Welfare. Program application materials are available for the Fall semester only. All applications must be completed and submitted on or before January 2. Applicants must meet Graduate School and program requirements for admission, including:

- Undergraduate grade point average of 2.75 or better.
- Completion of at least 21 semester credits in the social and behavioral sciences (i.e., psychology, sociology, political science, economics, anthropology, and/or their equivalents).
- Completion of one semester course with content related to the biological determinants of human behavior.
- Submission of a program application which includes three letters of recommendation from persons familiar with the applicant's personal and professional background and potential for success in the social work profession, as well as a narrative statement, providing information about relevant volunteer and work experiences and professional goals. (See program application forms for additional information.)

Applicants may be admitted with specific program-defined course deficiencies provided that these deficiencies include no more than the satisfactory completion of two courses. Deficiency requirements must be satisfied within one semester of enrollment in the Advanced Curriculum. Deficiencies are monitored by the Graduate School and the School of Social Welfare. Course credits acquired by satisfying deficiencies are not counted as program credits required for the degree.

Faculty Advisor
All students must have a faculty member within their area of specialized concentration to advise and supervise their studies as specified in Graduate School regulations. Students must develop, in consultation with the advisor, a written plan of study, including selection of the specialized concentration and practice method areas. Students who are not assigned an advisor at the time of their admission should contact the Assistant Dean of the School of Social Welfare for assignment. Students may elect to change advisor contingent upon the new advisor's appropriateness to the area of specialized concentration, the advisor's acceptance of additional advisees, and formal notification to the office of the Assistant Dean of the School of Social Welfare.

Minimum Credit Load Requirements
Students enrolled in the structured 4-Year Part-Time Program must register for a minimum of 2 courses per semester of enrollment. Students registered for field education must concurrently register for the appropriate practice methods courses (see prerequisites listings). Arrangements for field education can only be made in consultation with the Field Education Coordinator, as specified in the educational policies of the School of Social Welfare.

Non-degree Students
UWM non-degree students may earn credits which, if appropriate, may be counted toward a degree at a later date. Non-degree students may enroll in 12 credits of the Professional Foundation courses with the exception of field education (721), and in courses for 12 credits of which prerequisites can be satisfied. Non-degree students may not enroll in field education or advanced curriculum practice methods courses (711, 713, 721, 722, 811, 820, 821, 822, 915). Students should contact the Graduate School for information and regulations on non-degree status as well as the advising office in the School of Social Welfare prior to enrolling for social work courses under the non-degree classification.

Credits and Courses
The MSW Program requires a minimum of 34 graduate credits for students admitted to the Advanced Curriculum. Students may be required to complete up to 22 credits to fulfill the Professional Foundation. Course work taken as the Professional Foundation (see below) cannot be counted as part of the 34 Advanced Curriculum credits. The minimum 34 Advanced Curriculum credit requirements are distributed as follows:

11 credits of Field Instruction (722/821/822)
8 credits of Social Work Practice Methods (711 or 713/811* or 915/820)
4 credits of Social Work Research (793/794)
5 credits within selected area of concentration (711 or 753/851*)
6 credits of electives

(*Requires sections to be selected from within the specialized concentration area, for total concentration credits of 10)

Professional Foundation
Students admitted into the graduate social work program without having earned a bachelor's degree from an accredited social work program within the past 5 years are required to fulfill the Professional Foundation prior to Advanced Curriculum course work (see below for exemptions). The purpose of the Professional Foundation is to orient students to the profession and to provide a knowledge, values and skills base in preparation for the Advanced Curriculum. Course work in the Professional Foundation is not included in the 34 Advanced Curriculum credits required for completion of the MSW degree. The Professional Foundation courses are:

604 Social Systems and Social Work Practice
662 Methods of Social Welfare Research
665 Cultural Diversity and Social Work
705 Individual Behavior and Social Welfare
708 Social Work Methodology I
709 Social Work Methodology II
721 Field Instruction I
750 Social Welfare Policy Development and Implementation

Exemptions
Students who have, within the 5 years preceding admission, completed course work which substantially duplicates Professional Foundation courses may apply to the Director of Social Work Programs for an exemption from the relevant courses (This procedure applies to 604, 662, 705, 750). Exemption examinations are also offered on a scheduled basis for these courses. Students will not be exempted from some Foundation courses (708,709,665); exemption of the field experience (721) may be permitted under special employment experience circumstances and only by permission of the Field Coordinator's office. Students interested in securing an exemption should request course exemption forms upon notification of admission to the program.

All requests for exemptions must be made at the time of initial enrollment. Exemption requests will not be accepted following the end of the first semester of coursework.

Time Limit
Students admitted directly into the Advanced Curriculum must complete all degree requirements within seven years of initial enrollment; students required to complete any portion of the Professional Foundation must complete all degree requirements within seven years of initial enrollment.

Certification Programs

School Social Work

Certification requirements for a school social worker include the following: an MSW degree, a minimum of 18 credits of professional education, completion of an approved program, and two years of social work experience working with children and youth. The school social work program consists of the following:

- Field Education: at least 1,000 hours of which at least 250 hours are in an elementary or secondary setting, and 750 hours are working with children and youth.
- Education Courses: 4 courses in education (10 credits) consisting of a course in Educational Policy and Community Studies, one in Exceptional Education, one in Curriculum and Instruction and one in Reading and Language Arts.
- School Social Work course 851
- Family Development course 771
- Child Welfare content
- Human Behavior course 705 (or equivalent)
- Human Relations contact: a minimum of 75 hours of direct experience with minority groups

Early in their academic program, students should consult with the coordinator of Social Work and the Field Education Office for an evaluation of prior coursework and development of an overall academic program.

Marriage and Family Therapy

The Certificate in Marriage and Family Therapy (MFT) prepares social work students for beginning practice in marriage and family therapy. The MFT Certificate is designed to meet the educational requirements for membership in the American Association for Marriage and Family Therapy. (Final acceptability rests solely with the membership committee of AAMFT.) Students wishing to complete the Certificate should register their intention with the Coordinator of the MFT Certificate Program prior to beginning their graduate studies.

Completion of the Certificate sequence requires an additional 9-11 graduate credits beyond the MSW requirements. Specifically, students complete 9 credits of family studies, 9 credits of marriage and family therapy, 9 credits of human development, 4 credits of research, and 3 credits of professional issues. Students working towards MFT Certification are assigned to field placements in settings which provide the opportunity for practice with families.

Courses

Social Work (SOC WRK)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

497 Study Abroad: (Subtitled). 1-6 cr. U/G. Variable content (subtitle is area of concentration). Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work. Retakeable with change in topic to max of 9 cr. Prereq: jr st; acceptance for Study Abroad Prog

536 Social Work and Medical Issues. 2 cr. U/G. Survey course focusing on medical social services, analysis of social welfare health programs and current medical issues such as aids and environmental health and their effects. Prereq: jr st, satisfy english competency, one prior course in Soc Wrk recom; or grad st

562 Child and Family Services. 2 cr. U/G. Introduction to child and family welfare services, including methods for assessing needs, existing treatment techniques, and institutional support systems. Prereq: jr st, satisfy English competency, one prior course in Soc Wrk recom; or grad st

564 Social Services for the Aging. 2 cr. U/G. Individual and societal implications of the aging process, with an emphasis upon current resources and programs for the elderly. Prereq: jr st, satisfy English competency, one prior course in Soc Wrk recom; or grad st

580 An Overview of Child/Youth Care. 3 cr. U/G. Survey of skills, theories and approaches of the youth work field. Emphasis on relationship-building, interactive and developmental approaches in a variety of settings. Ed Pol/ExcEduc/Soc Wrk 580 are jointly offered & count as repeats of each other. Prereq: jr st or cons instr

581 Youth Work Practice. 3 cr. U/G. Applies the skills, theories and approaches of the youth work field to settings such as schools, community centers, and residential programs. Ed Pol/ExcEduc/Soc Wrk 581 are jointly offered & count as repeats of each other. Prereq: jr st; Ed Pol/ExcEduc/Soc Wrk 580(P); or grad st or cons instr

604 Social Systems and Social Work Practice. 3 cr. U/G. Analysis of organizations, community and social institutions and the impact they have on human behavior and how they provide the social context of social work practice. Prereq: jr st; satisfy English competency, admis to Soc Wrk major, Soc Wrk 310(P); or grad st

630 Women, Poverty and Welfare Reforms. 2-3 cr. U/G. Description of women in poverty and analysis of historical and contemporary national and state policies aimed at reducing poverty. Prereq: jr st; one prior course in Soc Wrk recom

640 Women and Aging: Issues, Concerns, Prospects. 2 cr. U/G. Analyze health/mental health/socio-economic/family issues of older women through study of research, public policy, stereotypes, and theories about women and aging. Prereq: jr st, satisfy English

competency, one prior course in Soc Wrk recom; or grad st

650 Social Welfare and the Law. 2 cr. U/G. Collaborative principles of social work and the legal profession. Selected concepts and principles of legal and social provision for protection of family, children and adults. Prereq: jr st, satisfy English competency, one prior course in Soc Wrk recom; or grad st

660 Women's Issues in Human Services. 2 cr. U/G. Overview, examination and analysis of significant current trends in women's issues from the perspective of the human service professions. Prereq: jr st, satisfy English competency, one prior course in Soc Wrk recom; or grad st

662 Methods of Social Welfare Research. 3 cr. U/G. Analyze methods of social welfare research and problems in project design and programming. Characteristics of investigations directed to planning, administrative, practice, and scientific objectives. Prereq: jr st, Soc Wrk major, completion of GER Math req, Soc Wrk 100(P) & 206(P), 421(C); or grad st

665 Cultural Diversity and Social Work. 3 cr. U/G. Emphasis on culture, race and ethnicity, theories of prejudice, and racial minority groups, and the politics of human services in multicultural society. Prereq: Jr st, admis to Soc Wrk major, satisfy English competency, Soc Wrk 100(P), 206(P), 250(350)(P); or grad st

691 Practice Methods in Social Work: (Subtitled). 1-3 cr. U/G. Topics focused on Social Work practice methods. Specific topics and credits to be announced in Timetable. May be retaken with change in topic to max of 6 cr. Prereq: jr st

705 Individual Behavior and Social Welfare. 3 cr. G. The development and behavior of individuals in interaction with their social contexts; implications for social welfare. Prereq: grad st

708 Social Work Methodology I: Individuals and Families. 3 cr. G. Introduction to generalist social work practice with individuals and families, with emphasis on integration of theory and knowledge with professional practice. Prereq: grad st

709 Social Work Methodology II: Groups, Organizations and Communities. 2 cr. G. Introduction to generalist social work practice with groups, organizations and communities, with emphasis on integration of theory and knowledge with professional practice. Prereq: grad st; Soc Wrk 708(C)

711 Direct Social Work Practice I. 3 cr. G. Methods of social work intervention employed in helping individuals, families and small groups. Addresses personal, interpersonal, environmental and resource issues with emphasis on interviewing, assessing, contracting and goal setting. Prereq: grad st; Soc Wrk 710, or BSW degree, or Soc Wrk 708 & 709; conc reg Soc Wrk 722

713 Community Organization, Planning and Human Service Administration I. 3 cr. G. Knowledge and skill development in the activities, roles, styles, and ethical issues in community and administrative practice. Emphasis on needs assessment, planning methodologies, and change efforts. Prereq: grad st; Soc Wrk 708 & 709(710) or BSW degree

716 Introductory Group Work. 2 cr. G. Social work method employed in dealing with problems of small groups, making use of organizational and community resources in working with them. Prereq: grad st

721 Field Instruction I. 3 cr. G. Supervised social work practice in a social agency. Prereq: grad st; Soc Wrk 710 or 708; 709(C), or conc reg in 711

722 Field Instruction II. 3 cr. G. Supervised social work practice in a social agency. Prereq: grad st; Soc Wrk 721 or BSW degree; Soc Wrk 713(C) or 711(C)

723 Field Seminar I. 1 cr. G. Selected topics pertaining to field education in a professional school. Prereq: grad st; conc reg Soc Wrk 722

750 Social Welfare Policy Development and Implementation. 2 cr. G. Examination of policy development, implementation, and models of analysis that describe and provide analytical guides for determining the efficacy of public policy in addressing human needs. Prereq: grad st

753 Psychopathology for Social Workers. 3 cr. G. Mental disorders and their implications for the social work profession, including assessment, intervention and prevention issues. Prereq: grad st; Soc Wrk 705

754 Psychopathology of Childhood And Adolescence. 2 cr. G. Mental and behavioral disorders of children and adolescents and their implications for the social work profession, including assessment, intervention and prevention issues. Prereq: grad st; Soc Wrk 705

764 Human Services Systems. 2 cr. G. Analysis of human services delivery mechanisms in the U.S. and the role of social workers as they relate to issues of social control; poverty and social functioning. Prereq: grad st

765 Professional Issues in Practice: Ethical and Legal Dilemmas. 2-3 cr. G. Ethical, legal, and case management issues faced by practitioners who provide services to individuals, couples and families. Topics include malpractice, legal regulation, and ethical dilemmas. Prereq: grad st

771 Development of the Family Over the Life Span. 3 cr. G. The family as a social system as it engages in various developmental tasks throughout the life cycle and in interaction with the social context; social work implications of relevant theories and research. Prereq: grad st

773 Perspectives on Crime and the Criminal Justice System. 3 cr. G. Analysis of the causes of criminal behavior; processes of becoming a criminal; patterns of criminal behavior; and policy and individual consequences of decriminalization. Not open to students who have cr in Crm Jst 773, which is identical to Soc Wrk 773. Prereq: grad st

778 Personality Theories for the Practice of Social Work. 3 cr. G. A consideration of social work practice in terms of comparison of various theories and schools of thought relating to human growth and behavior; ways in which social work practitioners can make use of diverse viewpoints. Prereq: grad st

791 Current Topics in Social Work: (Subtitled). 1-3 cr. G. Variable content course with specific topics to be announced in schedule of classes. May be repeated with change in topic to max of 6 cr. Prereq: grad st

793 Advanced Methods of Social Welfare Research. 2 cr. G. Advanced problems and methods of research in social

work practice. Prereq: grad st; Soc Wrk 662 or equiv; Soc Wrk 721(C) or 722(C)

794 Advanced Research Methods: Evaluating Social Welfare Programs. 2 cr. G. Provides students with the skills and knowledge base necessary to understand the program evaluation process as it applies to social welfare programs. Prereq: grad st

800 Issues in the Application of Correctional Philosophy. 3 cr. G. An examination of historical and contemporary philosophy, issues and applications of criminal justice and social work professions in correctional treatment and practice. Prereq: grad st

805 Correctional Administration and Programming. 3 cr. G. An examination of administrative and programmatic issues facing adult corrections, including institutional corrections, probation, parole, and community-based corrections. Prereq: grad st

811 Direct Social Work Practice II. (Subtitled). 3 cr. G. A continuation of methods of social work intervention, with sections tailored to specialized concentration areas: children and families, or physical and mental health. Emphasis is on selection and implementation of appropriate intervention plans. Prereq: grad st; Soc Wrk 711; 722(C)

813 Financial Management and Planning in Human Services. 2 cr. G. This course is designed to facilitate and understanding of selected areas of planning and management in human services with an emphasis on resource development and financial management. Prereq: grad st; Soc Wrk 713(C) & 915(C) or cons reg; cons instr

815 Advanced Groupwork. 2 cr. G. Methods of working with groups on advanced basis for treatment purpose. Prereq: grad st; Soc Wrk 716 or cons instr

820 Seminar in Social Work Practice: (Subtitled). 2 cr. G. Critical examination of varied and specialized methodologies with emphasis on new professional directions, interdisciplinary coordination and integration of professional practice with behavioral sciences, research, and policy concerns. May be repeated with change in topic to max of 6 cr. Prereq: grad st; Soc Wrk 811(C) or 915(C)

821 Field Instruction III. 4 cr. G. Second-year supervised social work practice in a social agency. Prereq: grad st; conc reg Soc Wrk 811, or 915(C); 722; 711 or 713

822 Field Instruction IV. 4 cr. G. Advanced second-year supervised social work practice in a social agency with emphasis on integration of professional practice with methodology, behavioral sciences, research and policy concerns. Prereq: grad st; Soc Wrk 821

825 Supervision and Consultation for Direct Service. 2 cr. G. Methods employed by professional social workers in supervisory, leadership and consultative relationships with other types of welfare personnel. Prereq: grad st; Soc Wrk 711 or 718 or 864

830 Intervention Strategies for Correctional Clients. 3 cr. G. A review and analysis of intervention approaches and programs used with correctional clients, both juvenile and adult, with emphasis on diversion, prevention, and rehabilitation strategies. Prereq: grad st

831 Models of Family Therapy. 2 cr. G. Introduction to the major family therapy approaches, including assessment and intervention techniques for each. Models include systemic, structural, strategic, interactional and multigenerational. Prereq: grad st; Soc Wrk 811 or conc reg

832 Marital Therapy. 2 cr. G. Intensive examination of varied methodologies to effect therapeutic change in couples. Includes assessing couples' interactional patterns and formulating therapeutic strategies. Prereq: grad st; Soc Wrk 811 or conc reg; cons instr

835 Sex Related Issues and Topics. 2 cr. G. Physiology, psychology, and sociology of sex-related issues and topics to prepare professional to assist in these areas or to make an appropriate referral. Prereq: grad st

851 Social Issue and Policy Analysis: (Subtitled). 2-3 cr. G. Advanced level analysis of the relationship between selected problem areas, policy development and service system. May be repeated with change in topic to max of 9 cr. Prereq: grad st; Soc Wrk 750 or BSW degree

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

915 Human Services Administration II. 3 cr. G. The role of the professional in the human services administrative organization, focusing on interpersonal relationships in supervision, evaluation and leadership. Prereq: grad st; Soc Wrk 713; 722 or conc reg

921 Field Instruction V. 3-4 cr. G. Optional advanced supervised social work practice in a social agency. Prereq: grad st; Soc Wrk 822

942 The Family and Long-Term Care. 3 cr. G. Seminar on the role of family in providing long term care. Social values, public policies, and consequences for individuals and society. Sociol 942 & Soc Wrk 942 are jointly offered; they count as repeats of one another. Prereq: grad st

970 Readings in Research in Social Welfare. 1-4 cr. G. A research oriented course that involves the systematic analysis and investigation of social welfare and/or social welfare related topics. Students shall not take more than 6 cr total between courses Soc Wrk 970 & 999. Prereq: grad st; cons instr

999 Independent Reading in Social Work. 1-3 cr. G. Work suited to individual graduate students arranged. Students shall not take more than 6 cr total between courses Soc Wrk 970 & 999. Prereq: grad st; completion of foundation courses for non-BSW students; writ cons instr & dir of Soc Wrk prog

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Social Work.

History 460 (The Poor in America: An Historical Examination.) 3 cr, U/G.

UrbSty 986 (Urban Public Policy and Social Institutions.) 3 cr, G.

SOCIOLOGY

College of Letters and Science

Degree Conferred: MA in Sociology
Phone: (414) 229-4388
FAX: (414) 229-4266
E-mail: sociology@uwm.edu
Web site: www.uwm.edu/Dept/Sociology

The Master of Arts (MA) degree program in Sociology at the University of Wisconsin-Milwaukee offers a flexible and diverse program of study to students who wish to specialize in one of the profession's subfields. The master's program was established in 1964 and has annually enrolled 15-25 graduate students. Since its inception, the program has trained students now employed in human services and institutions of higher education.

In addition to the MA degree program, the Department of Sociology participates in an interdisciplinary Doctoral Program in Urban Studies in conjunction with the Department of History and the Urban Studies Program. The Urban Studies Doctoral Program has three areas of specialization: Urban Development, Human Service Organization and Race, Class, Gender and Ethnicity, and is rapidly building a national reputation as a leading urban program.

Graduate Faculty

PROFESSORS

Greer, Ann L., Ph.D., Northwestern University
Miller, Eleanor M., Ph.D., University of Chicago
Montgomery, Rhonda, Ph.D., University of Minnesota
Velez, William, Ph.D., Yale University

ASSOCIATE PROFESSORS

Bharadwaj, Lakshmi, Ph.D., University of Wisconsin-Madison
Edari, Ronald, Ph.D., Northwestern University
Frankfort-Nachmias, Chava, Ph.D., University of Oregon
Green, Donald, Ph.D., University of Minnesota
Jaffe, Dale, Ph.D., University of Chicago
Mathiowetz, Nancy, Ph.D., University of Michigan
Mayrl, William W., Ph.D., State University of New York-Buffalo, Chair
Oliker, Stacey J., Ph.D., University of California-Berkeley
Redding, Kent, Ph.D., University of North Carolina-Chapel Hill
Wilson, Frank H., Jr., Ph.D., University of Michigan

ASSISTANT PROFESSORS

Aneesh, Aneesh, Ph.D., Rutgers University
Chang, Kuang-chi, Ph.D., University of Chicago
Costello, Carrie Yang, Ph.D., University of California-Berkeley
Espinosa, Kristin, Ph.D., University of Chicago
Fingerson, Laura, Ph.D., Indiana University
Jordan, Jennifer, Ph.D., University of California, San Diego
Ley, Barbara, Ph.D., University of California-Santa Cruz
McKay, Steven, Ph.D., University of Wisconsin-Madison

Master of Arts in Sociology

Admission
An applicant who meets general Graduate School requirements and the following departmental requirements may be admitted in good standing:

- Undergraduate major in sociology or related field.
- Three letters of recommendation from persons familiar with the applicant's academic background.
- Completion of undergraduate courses in statistics, research methods, and sociological theory.

An applicant lacking background coursework may be admitted with deficiencies provided that the deficiencies amount to no more than two courses. The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as credits required for the degree. Deficiencies may be made up by taking the appropriate courses in the undergraduate program or by passing the appropriate CLEP examinations.

Applicants whose grade point averages are below the minimum 2.75 required by the Graduate School may be admitted on probation if there is substantial evidence of their ability to do satisfactory graduate work. Performance during the first semester of enrollment must convince the members of the Graduate Committee of the students' capacity to do graduate work.

The Department of Sociology requires at least three letters of recommendation. The Department provides a cover sheet that should accompany all letters of recommendation. The form is signed by both the applicant and the person providing the reference. Letters should be sent to the Chair, Graduate Admission, Department of Sociology, P.O. Box 413, Milwaukee, WI 53201. Those applying for financial assistance, including teaching assistantships, should submit Graduate Record Examination (GRE) scores. The Graduate School highly recommends GRE scores for students who apply for a University fellowship. GRE scores also are helpful if students do not meet the minimum grade point requirement set by the Graduate School.

Financial Aid
The major source of financial assistance for graduate students in Sociology is employment as a teaching assistant. Applications for teaching assistantships for the Fall semester should be received by March 1st; applications received after that date will be considered only in the event that all positions are not filled. To apply for a teaching assistantship, students should send a letter to the Chair, Graduate Committee, Department of Sociology, P.O. Box 413, Milwaukee, WI 53201, expressing interest in the position. Appointments are made at 33% of full-time work for first-year graduate students and usually involve conducting four discussion sections per semester. The stipend for a non-doctoral T.A. with a 33% appointment is at least $5,964. Tuition is remitted for all teaching assistants with a 33% or higher appointment. T.A.'s are required to carry a minimum of six graduate credits per semester.

Graduate students also are eligible for University Fellowships that are awarded by the Graduate School on a competitive basis. Additional information on the types

and availability of fellowships may be obtained directly from the Graduate School.

Advising Procedures
Upon admission, the Graduate Committee Chair assigns each student to an interim advisor. The interim advisor assists students in planning their course programs, and in scheduling other degree requirements. When the MA student begins to formulate a topic for a thesis, a master's paper, or an MA examination, the student asks someone on the Sociology Graduate faculty if he/she will serve as the chair of the student's committee. This person then becomes the student's main advisor for the remainder of the time in the program.

Credits and Courses
The MA in Sociology requires a minimum of 30 graduate credits. Three credits of Sociol 990, Thesis, are required for students who write a thesis or Master's paper. Students who choose the examination option take 3 credits of electives in lieu of Sociol 990. The 27 remaining credits must include five core courses, one from each of these areas: sociological inquiry, theory, research methodology, statistics, and research practicum. Normally, this requirement is fulfilled by taking:

- 700 Proseminar in Sociological Inquiry
- 715 Systematic Sociological Theory
- 750 Research Methods in Sociology
- 760 Advanced Statistical Methods in Sociology
- 989 Practicum in Sociological Research

The student, in consultation with the advisor, will select 12-15 elective credits, of which at least three must be earned in Sociology seminars. Up to six graduate credits may be taken outside the department in courses related to the individual's plan of study. No more than six credits of undergraduate/graduate courses (excluding those previously taken by the student), taken at the graduate level, may be applied toward meeting degree requirements. No more than six credits may be taken in Sociol 999, Reading and Research.

A student with an exceptional background in one or more of the required classroom courses may request that 700-level course requirements be waived. Sociol 989, Practicum in Sociological Research, may be waived for students who have an officially approved MA proposal by the time they have completed 12 credits. In this case, three credits of Sociol 990 will be required in its place. Sociol 989 also will be waived for students who will take an examination rather than write a Master's paper or thesis for the degree. Elective credits are substituted in this case and for any other courses that are waived.

Good Standing
To retain good standing in the Department of Sociology, an enrolled graduate student must maintain a minimum 3.0 cumulative GPA and demonstrate progress toward completion of the course and/or thesis requirements each semester.

Incompletes
Although it occasionally may be necessary to take incompletes, it is important that they be removed early in the following semester. Incompletes are a negative consideration in evaluating students for teaching assistantships and fellowships. Moreover, incompletes not completed within one year from when the Incomplete grade was assigned will be recorded administratively as a permanent incomplete (PI).

Thesis, Master's Paper, or the MA Examination Options
The student must write and defend an acceptable thesis, a master's paper, or write an examination in fulfillment of the requirements for the Master of Arts degree in Sociology.

Thesis or Master's Paper
The thesis or master's paper is intended to be a relatively limited research exercise, focused on a manageable topic. It does not necessarily have to involve original research. It is completed through enrollment in Sociol 990. Acceptable thesis or master's paper options include, but are not limited to, collection of data for hypothesis testing or exploratory research, secondary analysis of available data, theoretical critique, conceptual analysis and library research on a clearly defined problem. In general, students are encouraged to utilize existing data rather than collect new data unless they are confident that they have adequate resources (including time) to collect data sufficient for their purposes.

Students are urged to discuss, with one or more faculty, their general area of interest for a possible thesis or master's paper by the beginning of their third semester of residence. By the end of the third semester, students should complete a proposal for the MA thesis or paper. This entails selection of members of the committee and distribution of the student's proposal to the faculty. The proposal, about 5-10 pages, is reviewed and approved by the committee at a scheduled hearing. This proposal shall be part of the student's file.

Students must prepare the thesis or master's paper under the direction of their committee, receive approval that it meets professional standards, and defend it at an oral examination. The master's paper is normally the length of a journal article (about 30 pp.). Students who choose to write a thesis should obtain a copy of the Master's Thesis and Doctoral Dissertation Format Requirements from Graduate Student Services, Mitchell 261. The thesis must be prepared according to these format requirements.

When the thesis or master's paper is complete, the student shall circulate an abstract to all faculty, to be part of the student's permanent record.

MA Examination
The Master of Arts examination option is based on a bibliography developed by the student in consultation with his/her committee. The bibliography will represent both classical statements and recent debates in at least one area of sociological specialization. Students are encouraged to develop the bibliography by the end of the third semester of residence.

The examination itself will be a set of three questions developed by the MA committee, from which the student must choose two. The student will have two weeks to write a take-home examination. The advisor and two other faculty members will grade the examination. Within two weeks of the completion of the written examination, there will be an oral examination on the same material. At that time, the MA examining committee will decide whether or not the student passes the examination. Should the student fail, a second attempt may be permitted.

Time Limit

The student must complete all degree requirements within five years of initial enrollment.

Courses

Sociology (SOCIOL)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

376 Modern Sociological Theory. 3 cr. U/G. Major theoretical paradigms including functionalism, conflict and dialectical models, exchange theory, symbolic interactionism, and social phenomenology.. Prereq: jr st; Sociol 101 (P) & 375(R); or grad st

440 Sociology of the Family. 3 cr. U/G. Family patterns and ideologies in relation to broader social structure and culture, sources of variety and change in household, family, and kinship organization. Prereq: jr st; 6 cr in Sociol at 200-level or above

443 Organizations, Occupations, and Professions. 3 cr. U/G. Development of occupations and professions in industrial societies. Study of professional concepts, ethical codes, work norms, specialization, recruitment, education, and work roles in an organizational context. Prereq: jr st & Sociol 101(P) or 104(P); or grad st

444 Sociology of the Body. 3 cr. U/G. How the body is shaped by social forces. Relationship between the body, identity, and culture, focusing on gender, race/ethnicity, and disability. Prereq: jr st & any Sociol course; or grad st

448 Sociology of Children and Adolescents. 3 cr. U/G. Theoretical perspectives and research methods addressing substantive issues in children's and adolescents' lives, including peer cultures, schooling, families, gender, race, class, health, and work. Prereq: jr st & any Sociol course; or grad st

475 Seminar in Feminist Social Theory. 3 cr. U/G. Feminist theories of social structure which focus on gender as a social construct: liberal, radical, socialist, and Marxist theories, deconstructionism, feminist psychosocial theory. Satisfies L&S Seminar req. Prereq: jr st; Sociol 101(P) or 104(P); cons instr

495 Seminar in Sociology: (Subtitled). 3 cr. U/G. Intensive study in a selected area of Sociology. Designed to encourage discussion, debate, and critical thinking. Retakable w/chg in topic to 6 cr max. Satisfies L&S Seminar req. Prereq: jr st; 6 cr 200-level or above Sociol or cons instr

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

603 Urban Minority Communities: (Subtitled). 3 cr. U/G. Survey of population and residential patterns, social institutions such as work, schooling, housing, leisure, and family in urban minority communities. Retakable w/chg in topic to 9 cr max. Prereq: jr st

604 Research in Urban Minority Communities: (Subtitled). 3 cr. U/G. Learning by performing a project from problem definition through methods to report composition; topic relevant to urban minority communities. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Sociol 361(P)

605 Research Project in Sociology: (Subtitled). 3 cr. U/G. Learning by performing a project from problem definition through methods to report composition. Retakable w/chg in topic to 9 cr max. Prereq: jr st; Sociol 361(P) & 6 additional Sociol cr at 200-level or above

610 Reproduction of Minority Communities. 3 cr. U/G. Analysis of the social, economic, and cultural forces behind the formation and reproduction of minority and disadvantaged communities in the United States. Jointly-offered w/& counts as repeat of Ed Pol 610. Prereq: jr st; any Sociol 100-level course

700 Proseminar: Sociological Inquiry. 3 cr. G. Fundamentals of academic and sociological reading, writing, and thinking. Orientation to graduate study, the sociological profession, and the tools of sociological research. Prereq: grad st

704 Seminar in Non-Profit Organizations. 3 cr. G. Overview of structure, functions, and governance of non-profit organizations. Comparison with government and for-profit organizations. Pol Sci 704, Sociol 704, & Urb Std 704 are jointly offered; they count as repeats of one another. Prereq: grad st

705 Theory and Method in Social Organizations. 3 cr. G. Analysis of organizational elements of modern societies and their role in family, religion, politics, economics, and education as they relate to each other and ideologies. Prereq: grad st

715 Systematic Sociological Theory. 3 cr. G. A general examination of sociological theories, their construction, problems of conceptualization, and methodological requirements. Prereq: grad st

732 (672) Complex Organization. 3 cr. G. Examination of theory and research on structures and processes of large-scale formal organizations in western society. Prereq: grad st

733 Public Program Evaluation. 3 cr. G. Scope and methods of evaluation: analytic background and skills necessary in evaluation. Discuss and analyze citizens' preference, legislative intent, bureaucratic implementation, and goal attainment. Not open to students who have cr in Pol Sci 733 or Urb Std 733, which are identical to Sociol 733. Prereq: grad st

750 Research Methods in Sociology. 3 cr. G. Application of scientific methods to the analysis of social phenomena, methodological orientations in sociology, types of research procedure, and nature of sociological variables. Prereq: grad st

752 Fundamentals of Survey Methodology. 3 cr. G. Seminar in the principles of survey design that are the basis of standard practices in the field of sociology. Prereq: grad st

754 Questionnaire Design. 3 cr. G. Seminar in the design, evaluation, pretesting, ordering, and formatting of questions and questionnaires. Prereq: grad st

760 (effective 01/24/2005) Advanced Statistical Methods in Sociology. 3 cr. G. Review of elementary statistics. Probability theory and its applications. Multivariate analysis. Nonparametric statistical inference. Measurement theory. Selected statistical models for hypothesis testing and theory construction. Prereq: grad st;

score of 85 on dept diagnostic examination.

760 Advanced Statistical Methods in Sociology. 3 cr. G. Review of elementary statistics. Probability theory and its applications. Multivariate analysis. Nonparametric statistical inference. Measurement theory. Selected statistical models for hypothesis testing and theory construction. Prereq: grad st; Sociol 261(P)

766 Theory and Method in Social Psychology. 3 cr. G. Examination of theoretical perspectives which relate the functioning of the individual to his social environment--exchange theory, balance theory, symbolic, interactionism, cognitive dissonance--and the empirical evidence for each. Prereq: grad st

770 Urban Sociology. 3 cr. G. Evaluation of urban social organization. Patterns of American urbanization, suburbanization, and metropolitan growth. Theories of change in urban spatial and social structure. Selected cross-cultural comparisons. Prereq: grad st

775 Social Change and Social Evolution. 3 cr. G. A general survey of theories and approaches to social change. Diverse theories of change ranging from evolutionism to modernization and development are examined in terms of theoretical formulations and specific applications. Prereq: grad st

780 Race and Ethnic Relations. 3 cr. G. Patterns of racial and ethnic differentiation and how they originate and change over time. Prereq: grad st

790 Social Stratification. 3 cr. G. Differential power, wealth and influences and contrasting life experiences, life changes and perceptions of the various social classes in society. Prepreq: grad st

794 Proseminar: The Teaching of Undergraduate Sociology. 0 cr. G. Designed to prepare and support new teachers of undergraduate Socioloy. Fee for 1 cr assessed. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for graduate students who must meet minimum credit load requirements. Fee for 1 cr assessed. Prereq: grad st

901 Seminar: Urban Social Structure. 3 cr. G. Comprehensive analysis of the emergence and institutionalization of cultural and social patterns in urban settings; and future American urban social structures. Sociol 901 & Urb Std 901 are jointly-offered & count as repeats of one another. Prereq: grad st

915 Seminar in Social Theory. 1-3 cr. G. Topics in human organization and behavioral theory: power, legitimization, stratification, revolution, production systems, elites, ethnicity, and nationhood. Diachronic and comparative approaches. Prereq: grad st

927 Seminar in Sociology of Contemporary Institutions: (Subtitled). 3 cr. G. Analysis of major social institutions in modern societies in terms of status orders, division of labor, normative systems, processes of social change and conflict. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic & cons adviser to 9 cr max. Prereq: grad st

928 Seminar in Social Organization: (Subtitled). 3 cr. G. Study of conceptual approaches used in analyzing social organization: social stratification, complex organization, urbanization, small groups in mass society. Specific topics and any additional prerequisites announced in schedule of classes each time course is offered. Retakable w/chg in topic & cons advisor to 9 cr max. Prereq: grad st

940 Applied Gerontology Capstone I. 1 cr. G. Professional socialization seminar emphasizing the interdisciplinary nature of gerontology and exposing students to professional and library resources for continuing professional development. Prereq: grad st, Nurs 760(P) & Soc Wrk 851(P)

942 The Family and Long-Term Care. 3 cr. G. Seminar on the role of family in providing long term care. Social values, public policies, and consequences for individuals and society. Sociol 942 & Soc Wrk 942 are jointly offered; they count as repeats of one another. Prereq: grad st

951 Seminar in Research Methodology. 3 cr. G. Discussion of selected topics in research design, research methods, statistical analysis, and model construction. Retakable to 9 cr max with cons adviser. Prereq: grad st

966 Seminar in Contemporary Social Psychological Systems. 3 cr. G. Analysis of contemporary social psychological systems, their origins and core concepts, the range of phenomena treated by each, and their implications for research. Retakable to 9 cr max with cons adviser. Prereq: grad st

971 Seminar in Urban Demography. 1-6 cr. G. Quantitative research methods and social trends analysis of metropolitan areas and sectors within cities, using public data sources and oriented to urban problems and policies. Retakable with cons adviser to 9 cr max. Prereq: grad st; a population/demography course

979 Methods of Research and Analysis for Urban Social Institutions I. 3 cr. G. Seminar on logic, design, and presentation of social science research. Inductive and qualitative methods, theory construction, and ethics and procedures of research in natural settings. Sociol 979 & Urb Std 979 are jointly-offered; they count as repeats of one another. Prereq: grad st

982 Methods of Research and Analysis for Urban Social Institutions II. 3 cr. G. Evaluation of different methods of generating data and their applications to the analysis of public policies and programs. Sociol 982 & Urb Std 982 are jointly offered; they count as repeats of one another. Prereq: grad st; Sociol 760(P), Hist 595(P), or equiv MA level quantitative stats course

989 Practicum in Sociological Research. 3 cr. G. The underlying logic of sociological inquiry linked to the practical steps of design and presentation; students translate a research idea into a research plan. Prereq: grad st

990 Thesis. 3 or 6 cr. G. - Retakable to 6 cr max. Prereq: grad st; cons major prof

999 Reading and Research. 1-3 cr. G. Independent study of a topic selected by a student after consultation with member of graduate faculty. Retakable w/chg in topic to 6 cr max. Prereq: grad st; cons instr

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the graduate program in Sociology.

Linguistics 430 (Language and Society.) 3 cr, U/G.

URBAN EDUCATION

School of Education

Degree Conferred: PhD in Urban Education
Phone: (414) 229-4729
FAX: (414) 229-2920
Web site: www.uwm.edu/Dept/UrbanEd

The School of Education offers an interdepartmental program of study leading to the PhD. Students must choose a specialization in either Adult and Continuing Education, Educational Administration, Curriculum and Instruction, Educational and Media Technology, Educational Psychology, Counseling Psychology, School Psychology, Exceptional Education, Multicultural Studies, Social Foundations of Education, or Art Education.

The program is designed to permit students to integrate their particular curricular areas of interest and specialization with a broader field of education, including urban education. Each specialization is departmentally focused, and students must satisfy the admissions and curriculum requirements indicated for their particular specialization. Recognition of the specialization is acknowledged by official designation on the student's transcript.

Each of the eleven specializations offers the doctoral student an opportunity to pursue study in a specific program area. For example, Adult and Continuing Education emphasizes governance and leadership issues within urban adult education organizations. Educational Administration explores governance and Leadership issues of urban schools. The Art Education specialization prepares art educators for careers in higher education. Curriculum and Instruction provides program emphasis in a content area (e.g., reading), education level (e.g., early childhood), a general area (e.g., curriculum theory) or special area (e.g., guiding instructional improvement). Educational and Media Technology emphasizes the use and importance of information technology and applying the technology to learning. Educational Psychology provides program emphasis in the areas of learning and development, and research and statistics. Exceptional Education provides program emphasis in departmental interest areas (e.g., handicapping condition), or a cross-disciplinary interest. Both the Counseling Psychology and School Psychology Specializations are accredited by the American Psychological Association and emphasize the preparation of research practitioners to work in urban settings. Multicultural Studies emphasizes integrating intercultural theory and practice in urban educational and community settings. The Social Foundations of Education specialization provides students with the conceptual tools with which to examine the complex interrelationships between school and society, education and culture.

All graduates should have a broad understanding of the issues, problems and trends related to education, including urban education, and the application of these to their major. Students must develop a minor area of study in a discipline outside the specialization.

The program requires each participant to develop research skills ranging from logic in inquiry to development of specific methodological skills in qualitative and quantitative methods. The PhD is a research degree and not only a professional preparation degree. Therefore research is an integral part of the program. Mastery of these skills is demonstrated through course work, research projects and the dissertation. Graduates apply their skills, in institutions of higher education, public or private school settings, federal, state or local governmental agencies, community organizations, and the private sector.

Cooperating Departments

Administrative Leadership
Curriculum and Instruction
Educational Policy and Community Studies
Educational Psychology
Exceptional Education
Art (Peck School of the Arts)
Information Studies (School of)

Urban Education Doctoral Program Advisors (2004-2005)

DISTINGUISHED PROFESSOR

Haberman, Martin, Ed.D., Columbia University Teacher's College (Curriculum and Instruction)

PROFESSORS

Aman, Mohammed, Ph.D., New York University (Information Studies)
Corrigan, Roberta, Ph.D., University of Denver (Educational Psychology)
Ellison, Anne Teeter, Ed.D., University of Northern Arizona (Educational Psychology)
Epps, Edgar, Ph.D., Washington State University (Educational Policy and Community Studies)
Fouad, Nadya, Ph.D., University of Minnesota (Educational Psychology)
Hains, Ann Higgins, Ph.D., University of Kansas (Exceptional Education)
Harris, Ian, Ed.D., Temple University (Educational Policy and Community Studies, Peace Studies)
Huinker, DeAnn, Ed.D., University of Michigan (Curriculum and Instruction)
Kepner, Henry, Jr., Ph.D., University of Iowa (Curriculum and Instruction)
Kritek, William J., Ph.D. Washington University (Administrative Leadership)
Martin, Larry, Ph.D., University of Wisconsin-Madison (Administrative Leadership)
McLean, Mary, Ph.D., University of Wisconsin-Madison (Exceptional Education)
McNeely, R.L., Ph.D., Brandeis University (Social Welfare)
Obiakor, Festus, Ph.D., New Mexico State University (Exceptional Education)
Olson, Hope, Ph.D., University of Wisconsin - Madison (Information Studies)
Otis-Wilborn, Amy, University of Kansas (Exceptional Education)
Pugach, Marleen, Ph.D., University of Illinois at Urbana Champaign (Curriculum and Instruction)
Ryder, Randall J., Ph.D., University of Minnesota (Curriculum and Instruction)
Sapp, Marty, Ed.D., University of Cincinnati (Educational Psychology)
Schneider, Gail, Ph.D., University of Wisconsin-Madison (Administrative Leadership)
Schug, Mark, Ph.D., Universtiy of Minnesota (Curriculum and Instruction)
Smith, Philip, Ph.D., University of Illinois at Urbana Champaign (Educational Psychology)
Stoiber, Karen, Ph.D., University of Wisconsin - Madison (Educational Psychology)
Wolfram, Dietmar, Ph.D., University of Western Ontario (Information Studies)

ASSOCIATE PROFESSORS

Azen, Razia, Ph.D., University of Illinois at Urbana Champaign (Educational Psychology)
Berg, Craig, Ph.D., University of Iowa (Curriculum and Instruction)
Blanchett, Wanda, Ph.D., Pennsylvania State University (Exceptional Education)
Crampton, Faith, Ph.D., Ohio State University (Administrative Leadership)
Cross, Beverly, Ph.D., Ohio State University (Curriculum and Instruction)
Daley, Barbara, Ph.D., Cornell University (Administrative Leadership)
Dimitroff, Alexandra, Ph.D., University of Michigan (Information Studies)
Edyburn, Dave, Ph.D., University of Illinois at Urbana Champaign (Exceptional Education)
File, Nancy, Ph.D., Purdue University (Curriculum and Instruction)
Ford, Alison, Ph.D., University of Wisconsin-Madison (Exceptional Education)
Hains, Anthony, Ph.D., Notre Dame Universtiy (Educational Psychology)
Keyes, Maureen, Ph.D., University of Wisconsin - Madison (Exceptional Education)
Lamborn, Sue, Ph.D., University of Denver (Educational Psychology)
Owens, Laura, Ph.D., University of Wisconsin - Madison (Exceptional Education)
Pucci, Sandra, Ph.D., University of Southern California (Curriculum and Instruction)
Santiago-Rivera, Azara, Wayne State University (Educational Psychology)
Schutz, Aaron, Ph.D., University of Michigan (Educational Policy and Community Studies)
Solberg, Scott, Ph.D., University of California-Santa Barbara (Educational Psychology)
Surber, John, Ph.D., University of Illinois at Urbana Champaign (Educational Psychology)
Walker, Cindy, Ph.D., University of Illinois - Champaign/Urbana (Educational Psychology)
Winn, Judith, Ph.D., Michigan State University (Exceptional Education)
Xie, Iris, Ph.D., Rutgers University (Information Studies)

ASSISTANT PROFESSORS

Buchanan, Elizabeth, Ph.D., University of Wisconsin - Milwaukee (Information Studies)
Conceicao, Simone, Ph.D., University of Wisconsin - Madison (Administrative Leadership)
Dentith, Audrey, Ph.D., Pennsylvania State University (Administrative Leadership)
Pichette, Eugene, Ph.D., University of Wisconsin - Madison (Educational Psychology)
Priester, Paul, Ph.D., Loyola University (Educational Psychology)
Renard, Deborah, Ph.D., Western Michigan University (Educational Psychology)
Wester, Stephen, Ph.D., University of Florida (Educational Psychology)

Doctor of Philosophy in Urban Education

Admission
An applicant must meet Graduate School requirements plus the following program requirements to be considered for admission.

Graduate Record Examination
Submission of scores on the General Test portion of the Graduate Record Examination is required. Scores that are more than five years old will not be considered valid.

Grade Point Average
Undergraduate GPA of 2.85 (applicants having less than 15 graduate hours must have an undergraduate GPA of 3.50.); graduate GPA of 3.5; or a combined (undergraduate and graduate) GPA of 6.5.

Writing Sample
Applicants must submit a writing sample completed within the last five years. The writing sample must be **single authored, at least 1500 words**, and must be selected from ONE of the following options:

- Master's Thesis
- Undergraduate Senior Thesis
- Technical report
- Term Paper
- Publication
- Written Description of a Project
- Action Research Project
- A 5-10 page response to the following question:

  How would you go about determining and evaluating critical issues in urban education?

  The response to this question must show evidence of appropriate references to a knowledge base.

The writing sample must be submitted with the application. **Deadline, January 1, 2002**

Interview
An interview may be arranged with all applicants. In the case of applicants living too far away to attend a personal interview, a phone interview will be arranged.

Recommendations
An applicant must have a minimum of three appropriate persons write a recommendation and comment meaningfully and knowledgeably on the likelihood that the applicant can successfully complete an advanced scholarly program of studies for the PhD degree. It is helpful if the majority of references are written by college/university faculty. If an applicant is unable to secure academic references because of elapsed time, other references should be as current as possible. In any case, individuals preparing references should be selected who can comment with confidence on the applicant's academic qualifications. Reference forms must be forwarded directly by the writers to the Office of Doctoral Studies. Complete information is provided in application materials available from the Office of Doctoral Studies.

Application
Applicants are required to articulate their urban and research interests and goals in application materials. An intended concentration within the PhD must be specified at time of application.

- Applicants who fail to satisfy these admission requirements will not be recommended for admission. However, satisfying these minima does not guarantee admission.
- Applicants who are not recommended for admission will be provided an opportunity to request a reconsideration.

Individual specializations may expect prior coursework in that area. Applicants may contact the Director for specific information. Openings in the program are limited. Applicants should submit all application

materials no later than January 1 for admission the following September. Applicants must contact the Office of Doctoral Studies for application information and forms.

Course of Study
Minimum degree requirement is 54 credits beyond the bachelor's degree (although students ordinarily take more than 54), at least 27 of which must be earned in residence at UWM (i.e., on the UWM campus).

In consultation with the major professor, the student designs a program of studies that enables the student to gain the knowledge and skills appropriate to the student's goals.

The program of studies includes the following:

1. The Doctoral Seminars
All doctoral students must take three 3-credit seminar courses devoted to content involving education in an urban environment. One of these seminars is taken as part of the department specialization.

2. Research Requirement
a. All doctoral students must take EdPsy 724, Educational Statistical Methods II (prerequisite is EdPsy 624) and CurrIns/Ad Ldsp 729, Qualitative Research and Field Studies in Educational Settings.

b. All doctoral students select additional advanced level (800 or above) coursework (minimum 6 credits) from either a qualitative track or quantitative track.

c. All doctoral students must take a research design course approved by their advisor and the Director of Doctoral Studies.

d. Department specialization requirements may exceed those specified here.

e. All students demonstrate knowledge in this area by writing a preliminary examination research question and successfully defending a dissertation.

3. Designated Specialization
Students indicate a specific area of specialization, by applying for one of the eleven transcript-designated specializations in either Adult and Continuing Education, Art Education, Counseling Psychology, Curriculum and Instruction, Educational Administration, Educational and Media Technology, Educational Psychology, Exceptional Education, Multicultural Studies, School Psychology, or Social Foundations of Education. Students may be required to meet the specific admissions and program requirements for their intended specialization in addition to meeting the PhD admissions and program requirements. (Please see the accompanying explanation and requirements for each specialization.)

4. Minor
Students are required to complete a minor consisting of courses in a related discipline that supports the student's program of studies. The student may choose either Option A or Option B.

Option A. A minimum of 8 credits in a single department outside the School of Education. A minor professor approves these courses, sits as a member of the student's doctoral committee, and contributes to the student's doctoral preliminary examination.

Option B. A minimum of 12 credits in two or more departments, with a minimum of 6 credits outside of the School of Education. The remaining credits may be taken within the School of Education, but must be taken outside of the department of specialization.

Foreign Language Requirement
There is no foreign language requirement. However, individual students may be required to demonstrate proficiency in a foreign language if such proficiency is determined to be necessary by a student's committee.

Residence
The residency requirement is satisfied through the successful completion of 9 or more credits in each of two consecutive semesters, excluding summer, or by completing at least 6 graduate credits in each of three consecutive semesters, excluding summer.

It is the student's responsibility to notify the Office of Doctoral Studies when residency requirements have been met. Such notification must be in writing and must include the semesters, year(s) and number of credits taken during each of the applicable semesters.

Doctoral Preliminary Examination
The student must pass a doctoral preliminary examination to qualify for formal admission to candidacy for the degree. The examination covers the area of specialization, urban education, the minor, and research methods.

Dissertation
The candidate must present a dissertation reporting the results of an original research study appropriate to the student's program. Prior to beginning the research, the candidate must present an acceptable dissertation proposal and defend it at an oral hearing.

Dissertation Defense
The candidate must, as the final step toward the degree, pass an oral examination in defense of the dissertation.

Time Limit
Students who do not complete all degree requirements within seven years from the date of admission to the doctoral program will be recommended for dismissal to the Graduate School.

Other Requirements
This is only a summary of the doctoral program requirements. A complete list of requirements is available from the Office of Doctoral Studies. Doctoral Committees may specify course requirements which exceed the minima described here.

For additional information on Graduate School PhD requirements, see the PhD section of the Graduate Faculty and Student Handbook.

Adult and Continuing Education Specialization

See the Administrative Leadership section of the Bulletin for course descriptions in this area.

Admission

- Students wishing to specialize in Adult and Continuing Education must first be admitted to the Urban Education Doctoral Program (UEDP).
- Subsequent to UEDP admission, the student must submit a program for concentration in Adult and Continuing Education, developed in conjunction with the student's advisor and committee, to the chair of the department of Administrative Leadership.

Program Requirements

The student must meet all of the program requirements of the Urban Education Doctoral Program. The specialization in Adult and Continuing Education consists of a minimum of 30 graduate credits excluding dissertation credits.

The credits are to be distributed as follows:

Required Courses (15 credits)

Ad Ldsp 798	Seminar in Human Resource Development	3 credits
Ad Ldsp 827	Seminar in Adult and Organizational Learning	3 credits
Ad Ldsp 867	Seminar in Continuing Education in the Professions	3 credits
Ad Ldsp 897	Seminar in the Philosophy & History of Adult Education	3 Credits
Ad Ldsp 967	Seminar in Urban Adult Education	3 credits

Electives (15 credits)

Students entering the Ph.D. program without a Master's degree in Adult Education are required to take the following electives. Your advisor may recommend other courses in addition to these.

Ad Ldsp 667	Program Planning in Adult Education	3 credits
Ad Ldsp 707	Using Technology with Adult Learners	3 credits
Ad Ldsp 737	Distance Education for Adults	3 credits
Ad Ldsp 757	Principles and Foundations of Adult Education	3 credits
Ad Ldsp 787	Administration of Adult Education Programs	3 credits
Ad Ldsp 777	Leadership in Multicultural Organizations	3 credits

Doctoral Committee Membership

The dissertation advisor is an Urban Education doctoral advisor and member of the Department of Administrative Leadership. At least two other committee members must be from the Department of Administrative Leadership.

Exit Requirements

Contingent upon successful completion of program requirements, the doctoral preliminary examination, and the dissertation defense, the Chair of the Department of Administrative Leadership must give final approval for the inclusion of "Urban Education: Adult and Continuing Education" on the student's transcript.

Educational Administration Specialization

See the Administrative Leadership section of the Bulletin for course descriptions in this area

Admission

- Students wishing to specialize in Educational Administration must first be admitted to the Urban Education Doctoral Program (UEDP).
- Subsequent to UEDP admission, the student must submit a program for concentration in Educational Administration, developed in conjunction with the student's advisor and committee, to the chair of the department of Administrative Leadership.

Program Requirements

The student must meet all of the program requirements of the Urban Education Doctoral Program. The specialization in Educational Administration consists of a minimum of 30 graduate credits excluding dissertation credits.

The credits are to be distributed as follows:

PhD Non-Certification Orientation

Ad Ldsp 801	Urban Education: Doctoral Seminar in Administrative Leadership	3 credits
Ad Ldsp 832	Educational Politics & Policy-Making	3 credits
Ad Ldsp 842	Program Planning & Evaluation in Education	3 credits
Ad Ldsp 862	Economics of Education	3 credits
	Electives in Administrative Leadership (700+)	18 credits
	Total:	30 credits

PhD District Administrator/Superintendent Certification Orientation

Ad Ldsp 801	Urban Education: Doctoral Seminar in Administrative Leadership	3 credits
Ad Ldsp 802	The School Superintendency	3 credits

Ad Ldsp 812	Educational Personnel Administration & Supervision	3 credits
Ad Ldsp 832	Educational Politics & Policy-Making	3 credits
Ad Ldsp 842	Program Planning & Evaluation in Education	3 credits
Ad Ldsp 862	Economics of Education	3 credits
Ad Ldsp 882	Practicum in the School Superintendency	3 credits
	Electives in Administrative Leadership (700+)	9 credits
	Total:	30 credits

Although a Master's Degree and certification as a principal are prerequisites to certification as a School Superintendent in Wisconsin, doctoral students may satisfy the requirements for both licenses within their Ph.D. Program of Study. Advisors will design such programs based on individual student need.

Any post-master's courses taken prior to admission while enrolled as a non-degree student in the Specialist Program for School Superintendent Certification do not have to be repeated, subject to advisor and UEDC Director approval. All such credits may be applied toward the 30 credits required in the area of concentration except that in no case may a Ph.D. area of concentration contain fewer than 9 upper level graduate credits (excluding dissertation credits) taken after admission to doctoral study. Individuals who have not completed at least 6 credits of accepted graduate course work within the 5 year immediately prior to admission must take a minimum of 15 credits.

Doctoral Committee Membership

The dissertation advisor is an Urban Education doctoral advisor and member of the Department of Administrative Leadership. At least two other committee members must be from the Department of Administrative Leadership.

Exit Requirements

Contingent upon successful completion of program requirements, the doctoral preliminary examination, and the dissertation defense, the Chair of the Department of Administrative Leadership must give final approval for the inclusion of "Urban Education: Educational Administration" on the student's transcript.

Curriculum and Instruction Specialization

See the Curriculum and Instruction section of the Bulletin for course descriptions in this area.

Admission

- Students wishing to specialize in Curriculum and Instruction must first be admitted to the Urban Education Doctoral Program (UEDP).
- Subsequent to UEDP admission, the student must submit to the Curriculum and Instruction Graduate Committee a program for concentration in Curriculum and Instruction developed in conjunction with the student's advisor.

Program Requirements

1. The student must meet all of the program requirements of the Urban Education Doctoral Program.
2. Specialization in Curriculum and Instruction consists of a minimum of 24 credits, 18 of which must be taken in Curriculum and Instruction. No more than 6 credits taken prior to admission to the PhD program may be counted toward the specialty. The credits are to be distributed as follows:

   a. A minimum of 9 credits in advanced, general Curriculum and Instruction courses:

   813 Instructional Research and Theory, 3 cr.
   816 Curriculum Designs for Urban Schools, 3 cr.
   819 Theory and Design of Curriculum, 3 cr.

   b. A minimum of 15 credits in a specific Curriculum and Instruction area of interest. Areas of interest are the following:

   - Content area: (e.g., reading)
   - Education level area (e.g., early childhood)
   - General area: (e.g., curriculum theory)
   - Special area: (e.g., guiding instructional improvement)

3. The UEDP doctoral preliminary examination includes a section covering the student's Curriculum and Instruction specialization.
4. A dissertation with a Curriculum and Instruction emphasis is required. The dissertation advisor must be an UEDP doctoral advisor and a member of the Department of Curriculum and Instruction. At least two other committee members must be from Curriculum and Instruction.

Exit Requirements
Contingent upon completion of program requirements, the doctoral preliminary examination, and the successful defense of the dissertation, the Chair of the Department of Curriculum and Instruction will give final approval for the inclusion of "Urban Education: Curriculum and Instruction" on the student's transcript.

Educational and Media Technology Specialization

See the Library and Information Science section of the Bulletin for course descriptions in this area.

Admission
Students wishing to specialize in Educational and Media Technology must first be admitted to the Urban Education Doctoral Program (UEDP).

Subsequent to UEDP admission, the student must submit to the School of Information Studies a program for concentration in Educational and Media Technology developed in conjucntion with the student's SOIS advisor.

Program Requirements

The student will develop a program of studies that is approved by the SOIS Doctoral Committee and by the Director of the Urban Education Doctoral Program.

The student must meet all of the program requirements of the Urban Education Doctoral Program.

Students not holding a Master of Information Studies degree will have the following prerequisites to the specialization: completion of all the core courses offered in the SOIS Master of Information Studies program (L&I Sci510, L&I Sci520, L&I Sci530, L&I Sci540, L&I Sci550). A student may request that the SOIS Doctoral Committee waive one or more of these core course requirements based on the student's work experience and/or courses taken elsewhere.

The specialization in Educational and Media Technology will consist of a minimum of 30 graduate credits, excluding dissertation credits; 18 of the 30 credits must be taken in Information Studies. No more than 6 credits taken prior to admission to the Urban Education Doctoral Program may be counted toward the 30-credit specialization. The minimum of 18 credits in Information Studies are distributed as follows:

a. The 3-credit seminar that also satisfies part of the Urban Education seminar requirement:
L&I Sci801 Doctoral Seminar: Issues in Educational and Media Technology

b. At least four of the following 3-credit courses:
L&I Sci670 Production and Utilization of Instructional Technology
L&I Sci710 Electronic Networking and Information Services
L&I Sci742 Advanced Use of Microcomputers in Library and Information Management
L&I Sci774 Online Information Retrieval
L&I Sci782 Information Systems: Analysis and Design
L&I Sci890 Research Methods in Information Studies

c. Three credits selected from these variable-credit courses:
L&I Sci784 Advanced Topics in Information Retrieval
L&I Sci891 Advanced Topics in Information Studies

The Urban Education Doctoral Program doctoral preliminary examination includes a section covering the student's Educational and Media Technology specialization.

A dissertation with an Educational and Media Technology emphasis is required. The dissertation advisor must be approved as such by the Urban Education Doctoral Program and the faculty of the School of Information Studies. At least one other committee member must be from the School of Information Studies. There must be at least two committee members from the School of Education.

Exit Requirements
Contingent upon completion of program requirements, the doctoral preliminary examination, and successful defense of the dissertation, the Dean of the School of Information Studies must give final approval for the inclusion of "Urban Education: Educational and Media Technology" on the student's transcript.

Educational Psychology Specializations

See the Educational Psychology section of the Bulletin for course descriptions in Counseling and Educational Psychology.

The Department of Educational Psychology provides three doctoral specializations:

- Counseling Psychology (APA accredited)
- Educational Psychology (includes Learning and Development, Research Methodology)
- School Psychology (APA accredited)

Admission
Students wishing to specializing in one of the three specializations offered in Educational Psychology (Counseling Psychology, Educational Psychology, or School Psychology) must apply and be admitted to the doctoral program in Urban Education (UEDP). Applicants should indicate on their application the specialization they wish to pursue in the doctoral program.

Applications are reviewed by the Admissions Committee of the Urban Education Doctoral Program as well as the graduate faculty of the Department of Educational Psychology (i.e., Counseling Psychology, Educational Psychology, or School Psychology). Faculty in the Department of Educational Psychology have admission authority for each specialization. Students are reviewed on the basis of letters of recommendation, academic credentials, GRE scores, and intended professional goals, and may undergo a personal interview. Admission decisions also are influenced by space limitations, and a match between student interests and faculty expertise.

Subsequent to admission, the student must submit a program of studies (in one of the three areas) developed in conjunction with the advisor.

When the program of studies is approved by the PhD specialization area, the student must submit the program of study to the Office of Doctoral Studies for review and approval by the Director.

Prior to admission, or within the first 30 graduate credits after admission to the PhD specialization, the student must complete a research project, e.g., a master's thesis or publishable paper.

Common Requirements in Educational Psychology Foundations
The Counseling Psychology, Educational Psychology, and School Psychology specializations require a common core of research and statistics, learning and development, and doctoral seminars.

Research and Statistics: A minimum of 15 graduate credits in research and statistics is required, of which 6 credits must be taken at the 800 level or above. Students must take a course in research design, EdPsy 724 Statistics II, and CurrIns 729 Qualitative Research, and an additional 6 credits in a quantitative track.

Learning and Development: A minimum of 12 graduate credits in learning and development is required. Three (3) credits must be taken in development, and 3 credits must be in learning. A minimum of 6 credits must be taken at the 800 level or above.

Urban Education PhD Seminars: Nine (9) graduate credits in urban education

seminars are required. Common to all specializations in the Urban Education Doctoral Program is a unique emphasis on working within urban contexts.

Program Requirements in Common for the PhD Specializations in Counseling Psychology, Educational Psychology, and School Psychology

Doctoral Preliminary Examination
Upon completion of formal coursework, doctoral students complete written doctoral preliminary examinations. The examination is constructed by the student's doctoral committee and reflects the major study areas of the student, including research and statistics, psychological foundations (the minor area for counseling and school psychology), educational psychology foundations (e.g., Counseling Psychology, Educational Psychology, or School Psychology). An urban knowledge base may be incorporated into one or more questions. Students also must prepare an oral defense of the examination.

Dissertation Requirements
PhD candidates are required to write a dissertation in the area of specialization (Counseling Psychology, Educational Psychology, or School Psychology). The student must demonstrate the ability to formulate a topic and conduct independent research. Students are encouraged to address research issues related to urban schools.

Exit Requirements
Students are advised to work closely with their Major Advisor to ensure that all program requirements, course work, practica/internship, preliminary examinations, and dissertation and oral defense requirement are met in a timely manner. Contingent upon completion of program requirements, the doctoral preliminary examination, and successful defense of the dissertation, the Chair of the Department of Educational Psychology must give final approval of the inclusion of "Urban Education: Counseling Psychology, Educational Psychology, or School Psychology" on the student's transcript.

COUNSELING PSYCHOLOGY

Program Requirements
Admission to the PhD program does not require a master's degree. Students not having a master's degree in Psychology or Educational Psychology, or a graduate degree in a related field recognized by the Department of Educational Psychology, are required to take preliminary doctoral coursework.

Psychological Foundations
- Biological Aspects of Behavior
- Cognitive and Affective Aspects of Behavior
- Social and Cultural Aspects of Behavior
- Individual Differences in Behavior
- History and Systems in Psychology
- Psychopathology

Educational Foundations (minimum 9 credits)
Minor in Psychology (minimum 9 credits)
Counseling Psychology
- Ethical and Professional Issues
- Career Counseling
- Advanced Multicultural Counseling
- Research Seminar in Counseling Psychology
- Supervision in Counseling Psychology
- Practicum in Counseling Psychology
- Internship in Counseling Psychology (minimum of 2,000 hours)

EDUCATIONAL PSYCHOLOGY

The doctoral specialization in Educational Psychology requires work in Educational Psychology Foundations and offers advanced work in one of two curricular areas: Human Learning and Development or Research Methodology. Students contemplating applying to the Educational Psychology specialization should contact the appropriate Area Chair of that curricular area (either Research Methodology or Learning and Development) prior to completing their application.

Students who wish to change their area of specialization to Educational Psychology after admission to another specialization must seek an adviser in Learning and Development or Research Methodology, and must submit a new program of studies for the newly selected area to the Educational Psychology Specialization Committee for approval. When approved, it must also be submitted to the Office of Doctoral Studies for approval by the Director.

In total, doctoral students specializing in Educational Psychology must earn a minimum of 54 credits beyond the Bachelor.s level, at least 27 of which must be taken in residence. This is a minimum requirement, and many actual programs exceed this minimum. Up to 12 credits earned prior to admission to the Ph.D. program may be counted toward the required credit total. Students entering the Ph.D. program with a Master.s degree may have other courses/requirements waived. However, a minimum of 36 credits (including thesis credits) must be earned following admission to the Ph.D. specialization in Educational Psychology. In addition to course work, the satisfactory completion of preliminary exams and a dissertation are required.

Learning and Development Emphasis
Student pursuing a Ph.D in Urban Education with a specialization in Educational Psychology and concentration in Learning and Development must meet all the requirements of the Ph.D in Urban Education with the Educational Psychology specialization. Students should contact the Learning and Development faculty for a list of courses that are currently available in the area.

Ph.D. Coursework in Learning & Development Emphasis (minimum requirements):

Research Requirement (16 credits):
Ed Psy 626 Workshop in the Computerized Analysis of Educational Data - 1 credit
Ed Psy 724 Educational Statistical Methods II - 3 credits
Ed Psy 728 Techniques of Educational Research - 3 credits
Ad Ldsp/CurrIns 729 Qualitative Research and Field Studies in Educational Settings - 3 credits
Advanced Research Methods - 6 credits

Other Education Courses Required of all Ph.D. Students (9 credits):
Educ 701 Urban Educational Issues - 3 credits
Ed Psy 801 Doctoral Seminar in Educational Psychology - 3 credits
Educ 901 Advanced Seminar in Urban Education - 3 credits

Minor (elective courses, 8-12 credits):
Option A: 8 or more credits in a single department outside of the School of Education.
Option B: 6 or more credits in

each of two departments, with at least one department outside the School of Education.

Learning & Development Courses (700 level and above):
12 credits required

Research Methodology Emphasis
Students pursuing a Ph.D. in Urban Education with a specialization in Educational Psychology and concentration in Research Methodology must meet all of the requirements of the Ph.D. in Urban Education with the Educational Psychology Specialization. Typically, these students will accumulate a minimum of 24 credits in Research Methodology courses. In general, the courses taken as part of the Ph.D. research requirement will count toward this minimum total. The table below summarizes the requirements for Research Methodology Students.

Ph.D. Coursework in Research Methodology Emphasis (minimum requirements):

Research & Evaluation (16 credits):
Ed Psy 626 Workshop in the Computerized Analysis of Educational Data -1 credit
Ed Psy 724 Educational Statistical Methods II - 3 credits
Ed Psy 728 Techniques of Educational Research - 3 credits
Ed Psy 821 Psychometric Theory and Practice - 3 credits
Ed Psy 824 Educational Statistical Methods III - 3 credits
Ed Psy 825 Multiple Regression and Multivariate Methods - 3 credits

Other Education Courses Required of all Ph.D. Students (18 credits)
Ad Ldsp/CurrIns 729 Qualitative Research and Field Studies in Educational Settings - 3 credits
Educ 701 Urban Educational Issues - 3 credits
Ed Psy 801 Doctoral Seminar in Educational Psychology - 3 credits
Educ 901 Advanced Seminar in Urban Education - 3 credits
Learning & Development Foundations courses - 6 credits

Minor (elective courses, 8-12 credits)
Option A: 8 or more credits in a single department outside of the School of Education.
Option B: 6 or more credits in each of two departments, with at least one department outside the School of Education.

Research & Evaluation Electives (12 credits required):
Ed Psy 822 Modern Test Theory
Ed Psy 823 Structural Equation Modeling
Ed Psy 826 Analysis of Cross-classified Categorical Data
Ed Psy 827 Survey Research Methods in Education
Ed Psy 829 Methods of Scale Construction and Multidimensional Scaling
Ed Psy 922 Seminar in Research & Statistics
Ed Psy 929 Seminar in Statistics & Research Design

Typical Elective/Minor Courses Outside of Educational Psychology:
Anthro 560 Introduction to Research Methods in Anthropology
Anthro 561 Techniques and Problems in Ethnography
Bus Adm 714 Multivariate Techniques in Management Research
CompSci Xxx Programming courses depending on experience and goals
Econ 310 Research Methods for Economics
Econ 411 Economic Forecasting Methods (time series analysis)
Econ 734 Foundations of Econometric Methods
Econ 735 Econometric Methods I
MthStat 361 Introduction to Mathematical Statistics I
MthStat 362 Introduction to Mathematical Statistics II
MthStat 465 Introduction to Mathematical Statistics for Social Sciences and Education
Pol Sci 392 Survey Research
Pol Sci 702 Advanced Techniques of Political Science Research
Other courses According to student's interests

SCHOOL PSYCHOLOGY

Following the established American Psychological Association scientist-practitioner model, the doctoral program prepares school psychologists across a base of theory, practice and research. Professional preparation in school psychology at the UWM provides students with a broad theoretical background, as well as empirically supported clinical skills through didactic, field placement, practica, and internship experiences. The program has a strong urban mission, and is dedicated to increasing knowledge, sensitivity, and awareness of practices best suited for individuals from diverse cultural, ethnic, and economic backgrounds. Principles of biological, psychological, cultural, and sociological sciences are emphasized, in particular applied to urban school, mental health, and educational settings.

Program Requirements
Students without a master's degree are accepted at the master's level and fulfill the requirements for a master's degree. These requirements are completion of at least 30 graduate credits and a thesis or publishable paper on an original and independent research project. Upon completion of the master's degree, students advance to the doctoral level. This does not require reapplication. Those who have previously earned a master's degree are admitted at the doctoral level if they have completed a thesis or publishable paper. Those who did not complete a thesis or publishable paper as part of a master's degree must finish this requirement within the first 30 credits of enrollment in the doctoral program.

Acquisition of research skills is an expectation of all doctoral students reflecting the scholarly nature of a Ph.D. Formal course work serves as the initial vehicle

through which students acquire research competencies. Course work covering quantitative and qualitative analysis, measurement, methodology and research design are all required. Ongoing involvement on research teams is expected. Doctoral students must have completed a master's thesis or publishable paper, and subsequently a dissertation that represents an original and independent research effort.

Program of Studies

Research, Statistics & Measurement Requirements (15 credits minimum)

Note: A minimum of 6 credits, not including dissertation credits, must be taken at the 800 level or above. All students must take EdPsy 724 and EdPsy 728.

Statistics (9 credits)

EdPsy 724 Educational Statistical Methods II
EdPsy 824 Educational Statistical Methods III
EdPsy 823 Structural Equation Modeling
EdPsy 825 Multivariate Analysis
EdPsy 929 Seminar in Statistics & Research Design

Research Theory and Methods/Measurement: (6 credits)

EdPsy 728 Techniques of Educational Research
EdPsy 720 Techniques of Educational & Psych. Measurement
EdPsy 821 Psychometric Theory & Practice
EdPsy 922 Seminar in Measurement and Evaluation

Dissertation Credits (6-12 credits)

EdPsy 990 Research or Thesis

Educational Psychology Core (12 credits minimum)

(Note: Three credits must be taken in development, and 3 credits must be taken in learning. A minimum of 6 credits must be taken at the 800 level or above.)

Developmental Psychology:

EdPsy 640 Human Development: Theory and Research
EdPsy 741 Cognitive Development
EdPsy 799 Social Cognition in Educational Psychology
EdPsy 743 Human Development: Study of Infancy and Early Childhood
EdPsy 745 Human Development: Study of Middle Childhood
EdPsy 746 Human Development: Study of the Adolescent
EdPsy 840 Theory and Issues in Human Development
EdPsy 844 The Multicultural Family
EdPsy 949 Seminar in Human Development

Psychology of Learning:

EdPsy 631 Cognition: Learning, Problem Solving & Thinking
EdPsy 731 Cognition and the Design of Instruction
EdPsy 831 Cognition: Theory and Research
EdPsy 734 Contextual Determinants of Motivation
EdPsy 834 The Psychology of Achievement Motivation
EdPsy 939 Seminar in Human Learning

Urban Education Ph.D. Seminars (minimum 9 credits)

Educ 701 Urban Education Issues
EdPsy 801 Urban Education: Educational Psychology Advanced Urban Seminar
Educ 901 Advanced Seminar in Urban Education

Minor in Psychology (minimum 9 credits)

Psych 712 Introduction to Clinical Psychology
Psych 714 Conditioning & Learning
Psych 741 Systems of Psychotherapy
Psych 742 Empirically Supported Interventions
Psych 912 Seminar in Psychopathology
Psych 960 Seminar in Child Psychology
Psych 961 Seminar in Child-Clinical Psychology

OR other course selected in consultation with advisor

Regular and Special Education Core (minimum 6 credits)

Regular Education Foundation (minimum 3 credits)

CurrIns 701 Curriculum Planning
CurrIns 746 Advanced Reading Education
CurrIns 747 Diagnosis and Treatment of Reading Disability

Special Education Foundation (3 credits)

CurrIns 715 Issues and Trends in Exceptional Education

OR other course selected in consultation with advisor

Professional Theories, Research & Clinical Practice (33 credits)

EdPsy 751 Professional and Historic Issues in School Psychology
EdPsy 752 Pediatric Psychopathology
EdPsy 755 Assessment and Intervention: School-Age
EdPsy 756 Assessment and Intervention: Early Childhood
EdPsy 760 Academic Intervention and Alternative Assessment
EdPsy 851 Assessment and Intervention: Personality, Social and Emotional Functioning

Biological Aspects of Behavior

EdPsy 853 Biological Basis of Childhood Disorders
EdPsy 952 Pediatric Psychology in Urban Settings

Psychological Interventions

EdPsy 732 Cognitive Behavioral Intervention Strategies in Education
Couns 805 Consultation Strategies for Counselors & School Psychologists
EdPsy 955 Advanced Therapeutic Interventions

Professional & Clinical Practices: Practicum (9 credits)

EdPsy 974 Beg. Practicum in School Psychology (3 credits)
EdPsy 975 Adv. Practicum in School Psychology (6 credits)

Advanced Professional Clinical Practices: Internship (12 credits)

EdPsy 986 Doctoral Internship in School Psychology

Related Professional Courses (electives)

EdPsy 579 or 779 Current Topics in Educational Psychology (e.g. Assessment & Intervention for ADHD, Interventions for At-Risk Families; Systems Level Interventions for School Psychology)
EdPsy 589 Workshop in Educational Psychology

Certification/Licensure as a Psychologist

Students completing the Ph.D. Specialization in School Psychology are eligible for licensure as a psychologist, and may practice psychology in a medical or mental health facility. Psychologists make application to the State of Wisconsin Licensing Board. Students completing the Ph.D. Specialization in School Psychology are also eligible for certification as a School Psychologist in the State of Wisconsin, through the Department of Public Instruction.

Exceptional Education Specialization

See the Exceptional Education section of the Bulletin for course descriptions in this area.

Admission

- Students wishing to specialize in Exceptional Education must first be admitted to the Urban Education Doctoral Program. (UEDP)
- Subsequent to UEDP admission, the student must submit credentials and a program for concentration in Exceptional Education developed in conjunction with the student's advisor in the Department of Exceptional Education. Students also must prepare a statement expressing their interests within Exceptional Education for the departmental admissions procedure.

Program Requirements
The doctoral specialization in Exceptional Education provides a program of advanced study of exceptional individuals and the services available to exceptional individuals. Students in Exceptional Education take advanced coursework in exceptional education and related areas such as administration, research, teacher education and curriculum development. In addition, students declare an area of interest which may be within exceptional education or a cross-disciplinary interest with an exceptional education focus on policy studies, curriculum development, learning and development, or administration. The student and advisor work together to develop an individualized program which incorporates breadth as well as depth of study.

1. Students not having the equivalent of a master's degree in exceptional educa-tion or a related field need to take appropriate graduate coursework as a prerequisite to the doctoral specialization in Exceptional Education.
2. The student must meet all of the program requirements of the Urban Education Doctoral Program.
3. The student must meet the following Exceptional Education requirements:

   a. Fifteen credits in Exceptional Education are required. A minimum of 9 credits must be taken at the 800 level or above.
   b. A minimum of 12 additional credits, at the 700 level or above, in an area of interest, e.g., administration, curriculum, an individually designed program, or research and statistics, with at least 3 credits of seminar at the 900 level, is required.
   c. The parts of the doctoral preliminary examination related to the specialty include these sections: exceptional education, area of interest, and research and minor.
   d. A dissertation is required in the area of Exceptional Education. The dissertation advisor is an approved doctoral advisor and a member of the Department of Exceptional Education. At least two other committee members must be from the Department of Exceptional Education.

Exit Requirements
Contingent upon completion of program requirements, passage of the doctoral preliminary examination, and successful defense of the dissertation, the Chair of the Department of Exceptional Education must give final approval of the inclusion of "Urban Education: Exceptional Education" on the student's transcript.

Multicultural Studies Specialization

See the Cultural Foundations of Education section of the Bulletin for course descriptions in this area.

Admissions Requirements

1. Students seeking admission to the doctoral program must indicate their intended area of specialization. The application will be reviewed by the Admissions Committee of the Urban Education Doctoral Program as well as the interdisciplinary graduate faculty of the Multicultural Studies Area.
2. Subsequent to admission, the student must submit a program of concentration in Multicultural Studies developed in conjunction with the student's advisor.
3. When the student's course of studies in Multicultural Studies is approved by the Multicultural Studies interdisciplinary faculty, the student must submit a program of study to the Office of the Doctoral Studies for review and approval by the Director.
4. Prior to admission, or within the first 30 graduate credits after admittance to the Multicultural Studies specialization, the student must complete a research project, e.g., thesis or publishable paper.

Program Requirements
Students must be admitted first to the Ph.D. Program in Urban Education, then specialize in Multicultural Studies. The course requirements for Multicultural Studies are outlined below.

1. Students must meet all the requirements of the Urban Education Doctoral Program.
2. Students not having a graduate degree in a field recognized by the specialization faculty may be required to take master's level course work as a prerequisite to admission.

   A. Urban Seminar Requirements (9 graduate credits)

   Educ 701 Urban Educational Issues
   Educ 801 Urban Education: Seminar in Multicultural Studies
   Educ 901 Advanced Seminar in Urban Education

   B. Major Concentration (9 graduate credits)

   The following courses are required. All are three (3) credits unless otherwise designated. (To be completed as cohorts and in the sequence listed.)

   Educ 881 Action Research
   Educ 882 Multicultural Studies Practicum

Educ 979 Special Topics in Advanced Urban Education Studies

C. Electives in Multicultural Specialization (15 graduate credits)

The SOE specialization includes a tailored professional area with multicultural studies.

1. **Department Concentration**
   Six (6) credits in one area are selected by the advisor and student (i.e., educational psychology, curriculum and instruction, administrative leadership, educational policy and community studies, or exceptional education).

2. **Interdisciplinary Education Concentration**
   Nine (9) credits are chosen from the following courses with three departments represented:

   CurrIns 816 Curriculum Design for Urban Schools
   Ed Pol 823 Multicultural Education
   Ed Pol 833 Seminar in Multicultural Education
   EdPsy 833 Psychology of Race and Ethnicity

D. Research Requirements (minimum of 15 graduate credits required)

3. Research Design and Methodology. The following are required:

   EdPsy 724 Educational Statistical Methods II
   CurrIns 729 Qualitative Research & Field Studies
   Educ 910 Research Seminar

4. Six (6) credits in additional advanced level course work from either a quantitative or qualitative track. Three (3) credits must be from the College of Letters and Science and 3 credits must be from the School of Education.

E. Minor Requirements (minimum of 15 graduate credits required)
The interdisciplinary minor in the College of Letters and Science is designed to broaden and deepen the student's knowledge bases between education and other disciplines.

Interdisciplinary Sequence:
Three courses are required. The courses will be selected from a list compiled by the interdisciplinary Multicultural Studies faculty. This includes one course each from Anthropology, History, and Sociology (Examples: Seminar in American Ethnic History, Linguistic Anthropology, Race and Ethnic Relations).

Minor Sequence:
To complete the minor, students will take an additional six (6) credits in one of the following departments: Anthropology, History, or Sociology.

F. Cohort Experience

To achieve the program goals, students will complete Action Research (Educ 881) and the Multicultural Studies Practicum (Educ 882) as a cohort group.

G. Doctoral Preliminary Examination

The doctoral preliminary examination includes sections covering the student's Multicultural Studies specialization. These sections will test the student's competence in the following areas: urban education; research; multicultural theories, policies, and practices; and the minor area.

H. Dissertation

A dissertation of original scholarly research is required in the area of Multicultural Studies. The dissertation advisor must be an approved doctoral advisor and a member of the Multicultural Studies interdisciplinary faculty.

Exit Requirements
Contingent upon successful completion of program requirements, passage of the doctoral preliminary examination, and successful defense of the dissertation.

Social Foundations of Education Specialization

See the Cultural Foundations of Education section of the Bulletin for course descriptions in this area.

Admission Requirements

1. Students wishing to be admitted to the Urban Education Doctoral Program must indicate their intended area of specialization. Their applications will be reviewed by the Admissions committee of the Urban Education Doctoral Program as well as by the Department of Educational Policy and Community Studies. The general requirements maintained by the Graduate School at UWM will apply to these candidates;

2. Subsequent to admission, the student must submit a program for study for a specialization in Social Foundations of Education, developed in conjunction with the student's advisor and committee;

3. If the student.s specialization in Social Foundations of Education is approved, the student must submit his or her program of study to the Office of Doctoral Studies for review and approval by the director;

4. Students who have already had their programs approved prior to their decision to seek specialization in Social Foundations of Education must submit a program for concentration in Social Foundations of Education to the Departmental Graduate Committee for approval, and if changes are made, must seek approval of the new program of studies by the Office of Doctoral Studies.

Program Requirements

Urban Educational Doctoral Program General Requirements (9 credits)

Educ 701 Urban Educational Issues
Ed Pol 801 Seminar in Social Foundations of Education
Educ 901 Advanced Seminar in Urban Education

Research Methods Credits (15 credits)

Ed Psy 724 Educational Statistical Methods II
CurrIns 729 Qualitative Research & Field Studies
Ed Psy 728 Techniques of Educational Research

6 credits advanced research coursework to be chosen from the following:

Historical/Cultural Research:

Anthropology
705 Advanced Topics in Ethnography
761 Cross-Cultural Research: Problems in Comparative Method and Theory
768 Topics in Advanced Research Design in Anthropology

History
712 Historiography and Theory of History
713 Historical Research Methods

Philosophy
903 Seminar in Epistemology
911 Seminar in Logic
960 Seminar in Metaphysics

Political Science
700 Scope and Methods of Political Science I
701 Techniques of Political Science Research
702 Advanced Techniques of Political Science Research

Social Work
793 Advanced Methods of Social Welfare Research
794 Advanced Research Methods: Evaluating Social Welfare Programs

Urban Studies
731 Quantitative Analysis for Public Administration and Urban Research
921 Seminar: Research Methods in Urban Affairs
979 Methods of Research & Analysis for Urban Social Institutions I
982 Methods of Research & Analysis for Urban Social Institutions II

Qualitative Research
CurrIns 729 Qualitative Research and Field Studies in Education Setting
CurrIns 829 Advanced Qualitative Research Techniques for Education Settings
CurrIns 839 Practicum in Writing from Qualitative Research in Educational Settings

Quantitative Research:
Ed Psy 821 Psychometric Theory and Practice
Ed Psy 822 Modern Test Theory
Ed Psy 823 Structural Equation Modeling
Ed Psy 824 Advanced Experimental Design and Analysis
Ed Psy 825 Multiple Regression and Multivariate Analysis
Ed Psy 826 Analysis of Cross-Classified Categorical Data
Ed Psy 827 Survey Research Methods In Education
Ed Psy 829 Methods of Scale Construction & Multidimensional Scaling
Ed Psy 922 Seminar in Measurement and Evaluation
Ed Psy 929 Seminar in Statistics and Research Design

Specialization Requirements (12 credits)

Ed Pol 805 Sociology of Education: Seminar
Ed Pol 822 Global Education Studies
Ed Pol 840 Seminar in Educational Theory
Ed Pol 850 Seminar in History of Education

Electives in Specialization (12 credits)

Students in the doctoral program with an emphasis on Social Foundations of Education may select from the following courses to fulfill this requirement. If a student wishes to take courses not on the list, s/he should get these courses approved through his/her adviser.

Educational Policy & Community Studies
620 History of the Education of African Americans
625 Race Relations in Education
660 History of Western Education
705 Sociology of Education
710 Research Methods in Cultural Foundations
740 Modern Philosophies of Education
750 History of American Education
823 Multicultural Education
830 A Study of Educational Classics
833 Seminar in Multicultural Education

Minor (12 credits)

The minor is completed outside the School of Education in one department as negotiated with advisor. The intent is to provide students with an academic area of expertise, e.g. sociology, philosophy, history, etc.

Other Requirements

All students must adhere to all other general requirements of the Urban Educational Doctoral Program pertaining to such issues as residency, preliminary examinations, dissertation proposals and defense, and time limits.

The preliminary qualifying exam will include a section covering the student's Social Foundations of

Education specialization.

A dissertation with the appropriate area of emphasis is required. The dissertation committee must be composed of a minimum of five members of the graduate faculty. The dissertation advisor will be an approved doctoral advisor and a member of the Department of Educational Policy and Community Studies. Two other members must be from the Department of Educational Policy and Community Studies, and one member must be from the minor area.

Exit requirements
Contingent upon completion of program requirements, the preliminary qualifying examination, and the successful defense of the dissertation, the chair of the Department of Educational Policy and Community Studies must give final approval for the inclusion of Social Foundations of Education upon the student's transcript.

Art Education Specialization

See the Art section of \ the Bulletin for course descriptions in this area.

Admission

- Students wishing to be admitted to the Doctoral Program must indicate their intended area of concentration in Art Education. Their application will be reviewed by the Admissions Committee of the Urban Educational Doctoral Program as well as by the graduate faculty of the Art Education area in the Department of Visual Art, Peck School of the Arts.

- Subsequent to admission, the student must submit a program for concentration in Art Education, developed in conjunction with the student's advisor.

- If the student's specialization in Art Education is approved by the graduate faculty of the Art Education area in the Department of Visual Art, the student must submit a program of study form to the Office of Doctoral Studies for review and approval by the Director.

- Students who have already had their programs approved by the Office of Doctoral Studies prior to their decision to seek specialization in Art Education must submit a program for concentration in Art Education to the graduate faculty of the Art Education area in the Visual Art Department for approval, and if changes are made, must seek approval of the new program of studies by the Office of Doctoral Studies.

Program Requirements

1. The student must meet all of the program requirements of the Urban Educatio\ n Doctoral Program.

2. Students not having the equivalent of a Master's degree in Art Education, M\ aster of Arts degree, a Master of Fine Arts degree, or a graduate degree in a r\ elated field recognized by the Visual Art Department, may be required to take a\ ppropriate coursework as a prerequisite to the doctoral specialization in Art E\ ducation.

3. Specialization in Art Education consists of a minimum of 30 graduate credit\ s excluding dissertation credits; 24 of these required credits must be taken in\ the Art Education area of the Visual Art Department. No more than 6 graduate c\ redits taken prior to admission to the PhD program will be counted toward the s\ pecialty course requirements. The credits are to be distributed as follows:

   a. 9 credits in foundation studies
   Art Ed 700 Historic Foundations of Art Education
   Art Ed 725 Modern Practices in Art Education
   Art Ed 750 Current Issues in Art Education

   b. 9 credits in urban education and research issues

   These required courses also satisfy an Urban Seminar requirement (xxx-801) and \ a requirement in the Qualitative Track of the Research Methods requirements (10\ 3/CurrIns 839) in the general core requirements of the Doctoral Program:

   Art Ed 801 Seminar in Urban Education and the Visual Arts
   Art Ed 920 Research Methods in Art Education
   Art Ed xxx Elective

   c. A minimum of 12 credits in a specific area of concentration in Art Educatio\ n and the School of Education; 6 credits must be in Art Education. Areas of con\ centration are the following:

   1. Content area: (e.g. studio practices, art history, aesthetics, art crit\ icism, cultural foundations)

   2. Education level: (e.g. early childhood, elementary, secondary, higher e\ ducation, adult/extra-school education)

   3. General area: (e.g. curriculum and instruction, supervision and adminis\ tration, educational psychology)

   4. Special area: (e.g. museum education, gifted and talented, assessment a\ nd evaluation, electronic instructional media programming, interdisciplinary pr\ actices)

4. The doctoral preliminary examination will include a section covering the st\ udent's general understanding of the role of the visual arts in educational con\ texts and a section related to the student's specific area of concentration.

5. A dissertation with an Art Education emphasis is required. The dissertation\ advisor must be an approved doctoral advisor and a member of the Art Education\ graduate faculty. At least one other committee member must be from the Visual \ Art Department and two others from the School of Education.

Courses

Education-Interdepartmental (EDUC)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

701 Urban Educational Issues. 3 cr. G. Advanced study of urban educational issues in contemporary american cultural context. Prereq: admis to Urban Educ doctoral prog

801 Urban Education: Seminar in Multicultural Studies. 3 cr. G. An overview of theory and research on multiculturalism with emphasis on applications of theory and research to practice in a variety of educational settings. Prereq: admis to phd prog urban educ; Educ 701(P)

881 Action Research. 3 cr. G. Perspectives on action research, its forms in various contexts, and how it contributes to knowledge and improved practice. Prereq: admis to Urban Ed PhD prog; Educ 701(C) or cons instr

882 Multicultural Studies Practicum. 3 cr. G. Intensive fieldwork/seminar with emphases on intercultural experience, integration of knowledge bases, and collaboration in community and university settings. Prerq: admis to Urban Ed PhD prog; Educ 881(P)

900 Doctoral Seminar in Urban Education: (Subtitled). 2-3 cr. G. Topics will vary. Overview of areas of study focuses upon problems in urban education. Emphasis placed upon research and potential research and potential search projects. May be repeated to max of 9 cr. Prereq: admis to phd in urban educ prog

901 Advanced Seminar in Urban Education. 3 cr. G. A synthesis of research-based urban education issues including specific content from the four areas of specialization. Prereq: grad st; admis to PhD prog in Urban Educ, Educ 701 and one of the following: Ad Ldsp 801, CurrIns 801, Ed Psy 801, ExcEduc 801

910 Research Seminar in Urban Education. 3 cr. G. Final course in research methods for PhD students in urban education. Focus on advanced research design issues and preparation for the dissertation. Prereq: admis to urban educ doctoral prog; Ad Ldsp/CurrIns 729; Ed Psy 724, & 6 additional cr of approved research methods

945 Seminar in Urban Doctoral Research. 1-3 cr. G. For students in PhD in urban education who are developing a dissertation. Identification and delineation of dissertation topics, research designs, instrumentations, and procedures. Prereq: admis to phd in urban educ

979 Special Topics in Advanced Urban Education Studies. (Subtitled). 1-3 cr. G. The specific topic will be announced in the Timetable each time the course is offered. May be repeated with different content to max of 9 cr. Prereq: admis to phd in urban educ prog

URBAN PLANNING

School of Architecture and Urban Planning

Degree Conferred: Master of Urban Planning
Phone: (414) 229-4015
FAX: (414) 229-6976
E-mail: jsinger@uwm.edu
Web site:
www.uwm.edu/SARUP/planning/degree.htm

The Urban Planning program at UWM is a professional, skills-oriented, master's program designed to train students to perform a variety of planning-related jobs in either the public or private sector.

The program focuses on planning as a process for improving collective decisions in the public and private sectors. The planning process includes analyzing problems, designing alternative solutions and evaluating their consequences, developing strategies for action and participating in their implementation. This process is used in both government and business in developing policy for future action, so that today's solutions do not become tomorrow's problems.

The program's elective courses combined with other courses on campus enable the development of more specialized depth in several planning related areas under the following concentrations: Urban Revitalization; Economic Development; Urban Geographic Information Systems; Transportation; Physical Planning and Urban Design; and Environmental Resources.

The Department is staffed by faculty members who combine academic and professional qualifications and who are committed to active involvement in current issues. They teach by example, using case studies and projects involving actual situations in most courses. This approach injects reality into the educational environment, allows students to see the relevance of the material in the curriculum, and shows students how their courses relate to their professional practice.

The Milwaukee Metropolitan area of one-and-one-half million persons is a learning laboratory that classroom projects and faculty researchers use extensively. Moreover, students gain additional practical experience through internships in the wide array of planning positions available in the Milwaukee area.

M Arch/MUP Coordinated Degree Program
In cooperation with the Department of Architecture, the Department of Urban Planning offers a Master of Architecture/Master of Urban Planning program to prepare students for positions as architect/planners. Students in the program concurrently pursue a Master of Architecture degree program and a Master of Urban Planning degree program. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree. For more detailed information on this program see Credits and Courses section below.

MS/MUP Coordinated Degree Program
In cooperation with the College of Engineering and Applied Science, the Department of Urban Planning offers a Master of Science in Engineering/Master of Urban Planning program to prepare students for positions in transportation, public works or similar areas. Students in the program will concurrently pursue a Master of Urban Planning degree program in the Department of Urban Planning and a Master of Science in Engineering degree program from the College of Engineering and Applied Science. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree.

MPA/MUP Coordinated Degree Program
A joint degree program has been designed to allow students to obtain both the Master of Public Administration and the Master of Urban Planning degrees concurrently. This program is intended to combine professional training in planning with applied administrative and managerial skills. More detailed information on this program can be found later in this section and in the Public Administration section of this Bulletin.

Certificate in Urban Geographic Information Systems (GIS)
The Certificate in Urban Geographic Information Systems is designed to provide a 21-credit formal program of studies for students who wish to pursue careers in geographic information systems in local government. Students wishing to earn the Certificate must be enrolled in a master's degree program in any department at the University or have received a master's degree from UWM in Urban Planning or a related field. For more information, see Certificate section below.

Certificate in Real Estate Development
The Certificate in Real Estate Development is designed to provide a formal program of studies for Master of Architecture or Master of Urban Planning students who wish to pursue careers in real estate development in combination with professional architectural practice or work with a private or public developer. For more information, see Certificate section below.

Graduate Faculty

PROFESSORS

Huxhold, William E., M.S., University of Dayton
White, Sammis B., Ph.D., University of Pennsylvania

ASSOCIATE PROFESSORS

Carlson, Virginia, Ph.D., Northwestern University
Frank, Nancy, Ph.D., State University of New York-Albany, Chair
Peng, Zhong-Ren, Ph.D., Portland State University

ASSISTANT PROFESSOR

Greenwald, Michael, Ph.D., University of California - Irvine

Master of Urban Planning

Admission
An applicant must meet Graduate School requirements plus these program requirements to be considered for admission:

- For domestic applicants, submission of scores on the General Test of the Graduate Record Examination. For international applicants whose first language is not English, a score of at least 600 (or 250 on the computer-based version) on the Test of English as a Foreign Language (TOEFL), or a score of at least 7.0 on the International English Language

Testing System (IELTS) exam. Applicants with TOEFL scores from 550 to 599 (or 213 to 247 on the computer based version) or an IELTS score of 6.5 will be considered for admission only with the stipulation that further course work in English be taken.

- Three letters of recommendation from persons familiar with the applicant's academic and/or professional work.

- Submission of a letter of intent to the Graduate School stating the reason for requesting admission to the Urban Planning program.

Candidates seeking admission to the M Arch/MUP, the MPA/MU, or the MS/MUP program must apply to and be admitted to both programs. The requirements for admission to the Master of Architecture degree program are detailed in the Architecture section of this Bulletin. The requirements for admission to the Master of Science in Engineering program are detailed in the Engineering section of this Bulletin. The requirements for admission to the MPA program are detailed in the Public Administration section of this Bulletin.

Major Professor as Advisor
The student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. A student who is not assigned to an advisor at time of admission should immediately contact the Department Chair.

Credits and Courses
The minimum degree requirement is 48 credits. Of these 48 credits, 27 are taken in the core curriculum, consisting of the following courses:

710 Planning Law and Land Use, 3 cr
711 Planning Theories and Practice, 2 cr
720 Urban Development Theory and Planning, 3 cr
721 Applied Planning Methods, 3 cr
740 Data Analysis Methods I, 3 cr
741 Data Analysis Methods II, 1 cr
791 Introduction to Urban Geographic Information Systems for Planning, 3 cr
810 Planning Policy Analysis, 6 cr
811 Applied Planning Workshop, 3 cr

The remaining 21 credits may be taken in the general option or any of the concentrations listed previously: Urban Revitalization; Economic Development; Urban Geographic Information Systems; Transportation; Physical Planning and Urban Design; and Environmental Resources. Each concentration consists of a recommended cluster of courses which may include one or more planning electives as concentration core courses, and a selection of electives from among planning and other courses. Details of the concentrations can be obtained from the Department of Urban Planning and are finalized in consultation with the student's academic advisor.

M Arch/MUP
Students in the M Arch/MUP program are required to complete a total of 72 credits: 27 credits of core courses and 9 elective credits in urban planning and 36 credits in architecture, including distribution requirements, pre-thesis/project and master's thesis/project.

MS/MUP
Students in the MS/MUP program are required to meet the College of Engineering and Applied Science requirements for the Master of Science in Engineering degree as well as the requirements for the MUP degree. Students in this program are required to take 15 credits in an approved program of technical studies in the College of Engineering and Applied Science, and 6 credits in nontransportation related engineering approved electives. The total credit requirement for the MS/MUP program is 54 credits.

MPA/MUP
This program allows students to complete master's degrees in Public Administration and in Urban Planning concurrently. The coordinated degree requires 42-45 credits of required courses and completion of a concentration in Public Administration (18 credits). However, because some courses completed for the core requirements of the MUP also may count toward the MPA concentration, students may complete the dual degree with a minimum of 54-57 credits. The total number of credits will depend on the student's track and choice of concentration in public administration.

Required Courses in Urban Planning (27 credits)
UrbPlan 710 Planning Law and Land Use, 3 cr
UrbPlan 711 Planning Theories and Practice, 2 cr
UrbPlan 720 Urban Development Theory and Planning, 3 cr
UrbPlan 721 Applied Planning Methods, 3 cr
UrbPlan 740 Data Analysis Methods I, 3 cr
OR Bus Adm 709 Data Analysis for Managers, 3 cr
UrbPlan 741 Data Analysis Methods II, 1 cr
UrbPlan 791 Introduction to Urban Geographic Information Systems for Planning, 3 cr
UrbPlan 810 Planning Policy Analysis, 6 cr
UrbPlan 811 Applied Planning Workshop, 3 cr

Required Courses in Public Administration (18 credits)
Bus Adm 738 Human Resources Management, 3 cr
Pol Sci/UrbPlan 630 Budgeting and Finance in the Public Sector, 3 cr
Pol Sci 763 Scope and Dynamics of Public Administration, 3 cr
Pol Sci 921 Public Service Administrative Internship,* 3 cr
OR UrbPlan 991 Legislative/Administrative Agency Internship, 3 cr
Pol Sci 959 Capstone Seminar in Public Administration, 3 cr

* The internship requirement will be waived for students with significant public sector work experience.

One seminar (3 cr) in organizational management and leadership selected from the following list:

Bus Adm 443 Special Topics in Human Resource Management, 3 cr
Bus Adm 732 Transforming Organizations, 3 cr
Bus Adm 737 Managerial Decisions and Negotiations, 3 cr

Concentration Requirement (18 credits)
Completion of all the requirements for one of the concentrations in Public Administration (see Public Administration section of the Bulletin). A maximum of six credits of MUP core courses may be used as electives in the MPA concentrations.

Comprehensive Exam
Completion of the comprehensive exam in Urban Planning is required.

Transfer Credits
Graduate coursework in urban planning or a related discipline taken prior to a student's admission to the program may be considered for transfer to the master's degree. See the Master's Degree chapter of the *Graduate Student and Faculty*

Handbook for credit transfer requirements.

Writing Assesment
Being able to write clearly and effectively is a critical skill for planners. The Urban Planning program encourages improvement in student's writing skills by emphasizing writing improvement across the curriculum, and especially in the core courses.

In some cases, students require more intense instruction to improve their skills to the level needed for planning practice. Faculty members assess student writing proficiency in the first semester core courses. Students who lack the required level of proficiency may be required to take a writing course as part of their second semester program of study. Writing proficiency is also a required element of the comprehensive exam.

Thesis
No formal master's project or master's thesis is required for the MUP degree. However, a thesis may be substituted for as many as 6 elective credits. The student must obtain approval for the thesis proposal from any urban planning faculty member. The students may relate their thesis work to the program core, the general option or an emphasis option.

Comprehensive Examination
All students in the program must take a written comprehensive examination as a requirement for graduation. The examination is given between the second and third semesters so that any deficiencies can be eliminated in the second year of the program through structured courses or directed study. Successful completion of the exam, or successful completion of courses specified for removal of deficiencies, represents fulfillment of the comprehensive examination requirement. Students in the MS/MUP program also must take and pass the comprehensive examination in engineering.

Time Limit
The degree program itself is designed largely for full-time students. But the program does allow students up to seven years from the time of initial enrollment to complete all degree requirements.

Students in the M Arch/MUP and MPA/MUP programs are allowed up to seven years from time of initial enrollment to complete all requirements for both degrees. Students in the MS/MUP program are allowed up to five years from time of initial enrollment to complete all requirements for both degrees.

Certificate in Urban Geographic Information Systems (GIS)

The Certificate in Geographic Information Systems is designed for those individuals seeking careers as GIS specialists, providing geographic data management, spatial analysis, and GIS system management support to professionals in a broad range of disciplines, such as criminal justice, health services, city and regional planning, civil and environmental engineering, transportation, and marketing. Certificate holders will seek employment in positions such as "GIS Specialist," "GIS Analyst," or "GIS Coordinator."

The program includes 12 credits of core courses on the structure of geographic data, components for managing geographic information systems, spatial analysis, and delivery of geographic information through maps and displays. An additional 6 credits of electives are taken in coursework to remote sensing, mapmaking, data management systems, or internship.

Upon completion of the certificate courses, a student is awarded the certificate which qualifies for 5 credential points in the GIS Certification Institute.s standards for professional certification in GIS.

Application and Admission
Students interested in the UGIS Certificate should contact the Department of Urban Planning. Those who are not already admitted to a UWM graduate degree program must submit a graduate non-degree application form and an official undergraduate transcript to the Graduate School. Applicants must have a bachelor's degree with an undergraduate GPA of 2.75 or a graduate degree to be accepted into the certificate program.

For international applicants, whose first language is not English, a score on the Test of English as a Foreign Language (TOEFL) of at least 600 (250 on the computer-based version) or an International English Language Testing System (IELTS) score of 7.0 must also be submitted.

Credits and Courses

Required Courses (12 credits) UrbPlan 791, Introduction to Urban Geographic Information Systems for Planning (3 crs.)
UrbPlan 792, Using Urban Geographic Information Systems for Planning (3 crs.)
UrbPlan 793, Applied Projects in Urban Geographic Information Systems (3 crs.)
UrbPlan 794, Internet Geographic Information Systems (3 crs.)

Elective Courses (6 credits) Geog 403, Remote Sensing: Environmental and Land Use Analysis (4 crs.)
Geog 405, Introductory Cartography (4 crs.)
Geog 525, Geographic Information Science (4 crs)
Bus Adm 749, Data Management Systems (3 crs.)
UrbPlan 991, Legislative/Administrative Agency Internship (3 crs.)
UrbPlan 999, Independent Study (1-3 crs.)

Grade Point Average Requirement
To continue in the program, a student must maintain a minimum cumulative 3.00 grade point average in certificate courses taken at UWM.

Transfer Credits Up to 3 credits of graduate coursework in GIS and related courses may be considered for transfer to the certificate program. To be eligible for transfer, the course must have been completed within the last 2 years, the student must have received a grade of B or better, and the GIS Certificate Coordinator must approve the course for transfer.

Time Limit
Students must complete all courses for the certificate within 3 years from the date of initial enrollment in the certificate program.

Certificate in Real Estate Development

Students wishing to earn the Certificate must be enrolled in the Master of Architecture or Master's of Urban Planning program at the University and must complete a minimum of 21 credits from the following groups of courses.

Real Estate Required Core Courses (15 credits)

- Arch 780 The Built Environment and Real Estate Development, 3 cr
- Arch 794 (M Arch. students) Prethesis or Master's Project Seminar, emphasis on Real Estate Development, 3 cr
  or UrbPlan 999 (MUP students) Independent Study, empahsis on Real Estate Development, 3 cr
- Arch 890 or 891 (M Arch. students) Thesis or Master's Project, emphasis on Real Estate Development, 6 cr
  or UrbPlan 990 (MUP students) Graduate Thesis, emphasis on Real Estate Development, 6 cr
- Bus 483 Property Development and Management, 3 cr
  or Bus 481 Real Estate Finance, 3 cr

Real Estate Electives (6 credits)
Arch 560 Introduction to Historic Preservation
Arch 845 Studies in Urban and Community Design theory (6 credits)
Arch 749 Urban Design as Public Policy
Arch 792 Independent study (Internship)
UrbPlan 651 Land Use Planning Practice
UrbPlan 661 Neighborhood Planning and Revitalization
UrbPlan 684 Planning Local Economic Development
UrbPlan 762 Housing Markets and Public Policy
UrbPlan 991 Internship (real estate focus)
UrbStd 720 Theory and Method in Local Economic Development
Econ 412 Urban Economics

NOTE

Individuals seeking to use the School's Shop must first provide evidence of personal accident and health insurance to the Dean's office. Since no accident or health insurance is provided to any user by the University, access to this resource will be prohibited to uninsured individuals.

Courses

Urban Planning (URBPLAN)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

614 Planning and the Suburbs: Their Growth and Maturity. 3 cr. U/G. Relationships between suburbs and cities and differences in their architecture, goverance, and provision of public services as well as current trends in suburban development. Prereq: sr st

630 Budgeting and Finance in the Public Sector. 3 cr. U/G. Examination of the budgeting process in the public sector; development of skills in budgeting and financial management. Topics include capital budgeting, debt management, revenue forecasting, and auditing. Jointly offered w/Pol Sci 630. Prereq: sr st or cons instr

651 Land Use Planning Practice. 3 cr. U/G. Specific land planning methods and applications (subdivision regulation, zoning, site plan review, building permit process) used to implement community plans. Prereq: sr st

655 Negotiation Theory and Practice for Urban Planners. 3 cr. U/G. Negotiation theory and practice, focusing on skills used by planners in balancing the needs of general public with those of private interests. Counts as repeat of UrbPlan 692 with same title. Prereq: sr st or cons instr

661 Neighborhood Planning and Revitalization. 3 cr. U/G. Problems, resources and potentials of urban neighborhoods; trends of neighborhood change and revitalization; neighborhood planning approaches, methods and cases; neighborhood planning project or case study. Prereq: sr st or cons instr

662 Land Use Planning for Urban Redevelopment. 3 cr. U/G. Introduction to contemporary trends in urban redevelopment; focus on planning and development techniques used to revitalize declining urban areas. Prereq: jr st

683 Planning for Small Towns. 3 cr. U/G. Planning needs of small and rural communities. Downtown, industrial and commercial revitalization methods. Economic, population, geographic and environmental growth management processes. Classroom and field applications. Prereq: sr st or cons instr

684 Planning Local Economic Development. 3 cr. U/G. Exploration of the role of planning in the generation, evaluation, and implementation of policies for the development and revitalization of communities. Prereq: jr st or cons instr

692 Special Topics in Urban Planning: (Subtitled). 1-3 cr. U/G. Provides a format for the development and presentation of new material in Urban Planning on an experimental, one-term basis. Specific cr & any additional prereqs announced in Timetable whenever course is offered. Retakeable with change in topic to max of 9 cr. Prereq: jr st or cons instr

710 Planning Law and Land Use. 3 cr. G. Constitutional and statutory authority for and limits on local government regulation of land use. Application of key concepts, including police power, due process, and property. Prereq: grad st or cons instr

711 Planning Theories and Practice. 2 cr. G. Theories about how planners should act in the planning process. Values and ethics of the profession; methods of participation; discussion of power in planning. Prereq: grad st or cons instr

720 Urban Development Theory and Planning. 3 cr. G. Spatial, social, economic, and political processes that shape urban development. Application of these processes to fomulate and critique urban plans and policies. Prereq: grad st; admis to UrbPlan or cons instr

721 Applied Planning Methods. 3 cr. G. Data sources and analysis techniques for urban planning. Survey design, economic analyses, benefit/cost analysis, market areas; the complexities of public and private data sources. Prereq: grad st; Urbplan 720(P) or cons instr

740 Data Analysis Methods I. 3 cr. G. The first course in a 4-credit sequence in the application of quantitative methods most commonly used in urban planning and analysis of the built environment. Prereq: grad st; admis to UrbPlan prog, Arch prog, or cons istr

741 Data Analysis Methods II. 1 cr. G. The second course in a 4-credit sequence in the application of quantitative methods most commonly used in urban planning Prereq: grad st; Urbplan 740(P) or cons instr

750 Special Topics in Land Use Law. 3 cr. G. Legal research on land use law topics. Concepts in land use law and advanced skills in applying law to contemporary land use issues. Prereq: grad st; UrbPlan 710(P); or cons instr

751 Introduction to Urban Design and Physical Planning. 3 cr. G. Planning for human needs as related to the physical layout and spatial design of urban environments. Prereq: grad st

762 Housing Markets and Public Policy. 3 cr. G. An examination of natural and local housing markets, their components and operations, and the impacts on them of a variety of public and private actions. Prereq: grad st

771 Transportation Policy and Planning. 3 cr. G. Seminar on the evolution of urban transportation systems and policies, transportation finance, land use and transportation interactions, and transportation planning and policy evaluation techniques. Prereq: grad st or cons instr

780 Seminar in Environmental Planning Issues. 3 cr. G. Planning values, tools, and skills for the conservation of land, water, air ecosystems and other natural resources. Current local case studies and applications. Prereq: grad st

781 Environmental Law and Policy. 3 cr. G. Seminar on major state and federal environmental laws as they apply to planning and development; economic and social effects of environmental problems and laws. Prereq: grad st

791 Introduction to Urban Geographic Information Systems for Planning. 3 cr. G. Use of spatially related information including gis and land records systems for improved productivity and decision making in service delivery, management, policy-planning, and land development. Prereq: grad st

792 Using Urban Geographic Information Systems (GIS) for Planning. 3 cr. G. A 'hands on' course in gis using commercial gis software in a computer laboratory setting to provide experience solving problems related to planning and government. Prereq: grad st; Urbplan 791(P) or cons instr

793 Applied Projects in Urban Geographic Information Systems. 3 cr. G. Use of a geographic information system (GIS) and actual data from local government to analyze a real world problem or issue requiring spatial data analysis. Prereq: grad st; Urbplan 791 or cons instr

794 Internet Geographic Information Systems (GIS). 3 cr. G. Seminar on theoretical background and hands-on experience with technologies for developing GIS applications on the Internet, the web, and wireless networks. Prereq: grad st; UrbPlan 792(P); or cons instr

810 Planning Policy Analysis. 3 or 6 cr. G. Application of planning analysis tools in the context of policy issues involving planners; a case studies approach stressing both policy analysis and the role of the planner. Prereq: grad st; UrbPlan 721(P), 731(P), 741(P) or cons instr

811 Applied Planning Workshop. 3 cr. G. Application of planning concepts, principles, processes and techniques to a selected realistic problem, issue, or project context at an appropriate scale ranging from the neighborhood to the state. Prereq: grad st; UrbPlan 810(P)

841 Seminar in Planning Analysis: (Subtitled). 3 cr. G. Application of one planning methodology: theory, case studies, preparation and presentation of major student project. Retakeable with change in topic to max of 6 cr. Prereq: grad st

857 Urban Design as Public Policy. 3 cr. G. Orients students in urban planning to urban design problems as matters of public policy with focus on the analysis and implementation of urban design proposals rather than on the techniques used to generate such proposals. Not open to students who have cr in Arch 749 which is identical to UrbPlan 857. Prereq: grad st

858 (effective 01/24/2005) Studio in Urban Design and Physical Planning. 6 cr. G. Projects and seminars apply urban planning principles to problems of urban design and physical planning to develop students' abilities to evaluate and effectively criticize proposals. Prereq: grad st; Urbplan 751(P) or 857(P)

858 Studio in Urban Design and Physical Planning. 6 cr. G. Projects and seminars apply urban planning principles to problems of urban design and physical planning to develop students' abilities to evaluate and effectively criticize proposals. Prereq: grad st; Urbplan 751(P) or 857(P)

880 Challenges to Urban Sustainability. 3 cr. G. Urban environmental management theory and practice, history of the environmental crisis, and alternative strategies for understanding human activity/ecological process relationships in urban areas. Jointly-offered w/& counts as repeat of Geog 880. Prereq: grad st

990 Graduate Thesis. 3 or 6 cr. G. Thesis under the direction of graduate planning faculty. May be retaken to max of 6 cr, which can be substituted for elective credits. Prereq: grad st, cons instr; successful completion of comprehensive exam

991 Legislative/Administrative Agency Internship. 3-6 cr. G. Research project assignments with elected legislative officials and administrative agencies. Assignments will be cooperatively developed and supported by an integrating seminar discussing both experience and theory in a planning implementation context. May be retaken with change in topic to max of 6 cr. Prereq: grad st; cons instr

992 Seminar in Urban Planning: (Subtitled). 1-3 cr. G. Advanced study of special topics in urban planning. Specific cr & any additional prereqs announced in schedule of classes whenever course is offered. Retakeable with topic change to max of 6 cr. Prereq: grad st or cons instr

999 Independent Study. 1-3 cr. G. Individual work in urban planning. Variable content course. Retakeable to max of 9 cr. Prereq: grad st; cons instr

URBAN STUDIES PROGRAMS

College of Letters and Science

Degrees Conferred: MS in Urban Studies; PhD in Urban Studies
Phone: (414) 229-4751
E-mail: usp@uwm.edu
Web site: www.uwm.edu/Dept/Urban_Studies

Urban Studies Programs offers two interdisciplinary graduate programs of study. Both programs are jointly sponsored by the Departments of History and Sociology and include participating faculty from these two departments plus Geography and Political Science.

The Master of Science degree program in Urban Studies provides students with a broad understanding of urban society and trains them in research techniques appropriate to the study of metropolitan communities. The course of study stresses the understanding of social processes and the analysis of social and economic policies affecting cities.

All MS students must complete a five-course core curriculum that establishes a common base of knowledge and research skills. On completing the core, students have two options. They may either secure a generalist degree, requiring 15 additional credits in elective courses, or they may specialize in an area of concentration in consultation with the MS Program Coordinator. The specialist option requires 15 credits in specified courses beyond the core. Both options require either a master's thesis or a master's paper. Graduates are prepared to enter professional careers in government or social agencies, or to enter doctoral programs for further study.

The PhD degree program in Urban Studies is designed to prepare individuals to obtain employment in academic departments, as well as government institutions and social agencies, and to conduct sophisticated research in the field of urban studies. The course of study emphasizes history, research methodology, and social science theory.

All doctoral students must take a six-course core curriculum and then establish a specialization in one of three areas: Urban Development, Human Service Organizations, or Race, Class, Gender, and Ethnicity. Graduates are equipped with the necessary research and methodological tools to conduct urban research deriving from theory and/or contributing to theory development.

MS/MLIS Coordinated Degree Program
In cooperation with the School of Information Studies, Urban Studies Programs offers an MS/MLIS program to prepare students for positions as urban information specialists. Students in this program concurrently pursue an MS in Urban Studies and a MLIS degree program. Prerequisite to the award of either degree in this program is the simultaneous award of its counterpart degree.

Graduate Faculty

(Professors' home departments appear in parentheses)

PROFESSORS

Anderson, Margo, Ph.D., Rutgers University (History)
Greer, Ann, Ph.D., Northwestern University (Sociology)
Levine, Marc, Ph.D., University of Pennsylvania (History)
Meyer, Stephen, Ph.D., Rutgers University (History)
Miller, Eleanor, Ph.D., University of Chicago (Sociology)
Montgomery, Rhonda, Ph.D., University of Minnesota (Sociology)
Percy, Stephen, Ph.D., Indiana University (Political Science)
Shashko, Philip, Ph.D., University of Michigan (History)
Velez, William, Ph.D., Yale University (Sociology)

ASSOCIATE PROFESSORS

Bharadwaj, Lakshmi, Ph.D., University of Wisconsin-Madison (Sociology)
Edari, Ronald, Ph.D., Northwestern University (Sociology)
Frankfort-Nachmias, Chava, Ph.D., University of Oregon (Sociology)
Gordon, Michael, Ph.D., University of Rochester (History)
Green, Donald, Ph.D., University of Minnesota (Sociology)
Jaffe, Dale, Ph.D., University of Chicago (Sociology)
Kenny, Judith, Ph.D., Syracuse University (Geography)
Mathiowetz, Nancy, Ph.D., University of Michigan (Sociology)
Mayrl, William, Ph.D., State University of New York - Buffalo (Sociology)
McCarthy, Linda, Ph.D., University of Minnesota (Geography)
Oliker, Stacey, Ph.D., University of California-Berkeley (Sociology)
Redding, Kent, Ph.D., University of North Carolina-Chapel Hill (Sociology)
Renda, Lex, Ph.D., University of Virginia (History)
Rodriguez, Joseph A., Ph.D., University of California-Berkeley (History)
Wei, Yehua, "Dennis" Ph.D., University of California-Los Angeles (Geography)
Wilson, F. Harold, Ph.D., University of Michigan (Sociology)

ASSISTANT PROFESSORS

Costello, Carrie Yang, Ph.D., University of California-Berkeley (Sociology)
DeSousa, Christopher, Ph.D., University of Toronto (Geography)
Espinosa, Kristin, Ph.D., University of Chicago (Sociology)
Fingerson, Laura, Ph.D., Indiana University (Sociology)
Ghose, Rina, Ph.D., University of Wisconsin-Milwaukee (Geography)
Heynen, Nikolas, Ph.D., Indiana University (Geography)
Ihrke, Douglas, Ph.D., Northern Illinois University (Political Science)
Jordan, Jennifer, Ph.D., University of California - San Diego (Sociology)
McKay, Steven, Ph.D., University of Wisconsin-Madison (Sociology)
Rast, Joel, Ph.D., University of Oregon (Political Science)
Reitman, Meredith, Ph.D., University of Washington (Geography)
Self, Robert, Ph.D., University of Washington (History)
Seligman, Amanda, Ph.D., Northwestern University (History)

Master of Science in Urban Studies

Admission
An applicant must meet Graduate School requirements plus the following requirement to be considered for admission:

- Undergraduate major in one of the social sciences or experience in relevant occupational roles such as planning, community organization or social work.

- Two letters of recommendation from persons familiar with the applicant's academic ability. Recommendation forms may be obtained from the Urban Studies Programs office.

- Submission of Graduate Record Examination scores is recommended but not required.

Applicants may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses.

The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree.

Major Professor as Advisor
The Coordinator of the Urban Studies Master of Science degree program acts as the initial advisor to all entering students. Therefore, upon admission to the program, students should meet with the Coordinator to discuss their course of study. As specified by The Graduate School, the student must have a major professor to advise and supervise the student's studies. Once the student has defined an area of interest within Urban Studies, an advisor with similar interests may be chosen from among the other members of the USP faculty.

Credits and Courses
The minimum degree requirement is 30 graduate credits. All Urban Studies students are required to take a core curriculum of 15 credits:

Urb Std 731 Quantitative Analysis in Urban Research (or equiv)
Urb Std 921 Seminar: Research Methods in Urban Studies

Three of the following four substantive courses:

Urb Std 901 Seminar: Urban Social Structure
Urb Std 913 Urban Political Process
Urb Std 945 The Internal Structure of the City
Urb Std 971 Seminar in the History of American Urban Problems

MS/MLIS
Students in the MS/MLIS program follow all of the requirements and standards as described in this section of the Bulletin with the following joint exceptions: 21 of the 24 credits, including the optional 3 credits for a master's thesis, required for the Urban Studies portion of the joint degree are taken within USP. All courses in related areas and any exceptions to the 21 credit rule must be reviewed by the Coordinator of Urban Studies. All courses selected are expected to be consistent with the objectives of the Urban Studies program.

Paper or Thesis
A master's paper or thesis is required to receive the MS degree in Urban Studies. A master's paper may be developed from a seminar paper and should demonstrate conceptual ability and research competence in a sub-area of Urban Studies. It is expected that the master's paper will be prepared in a scholarly fashion conforming to the format characteristics of journal articles published in the chosen area of study.

A master's thesis is a more formal document of greater breadth and depth than a master's paper. Students should refer to the Graduate School's Master's Thesis and Doctoral Dissertation Format Requirements booklet for information regarding preparation and review of the thesis.

Regardless of the option chosen, the student, in consultation with the faculty advisor, must assemble a committee of three faculty who will serve as the paper or thesis examination committee. The student must pass an oral examination based on the paper or thesis. Students who elect to write a master's theses may enroll in USP 990 and earn up to 3 credits toward the MS degree.

Time Limit
The student must complete all degree requirements within five years of initial enrollment.

Doctor of Philosophy in Urban Studies

Admission
An applicant must meet Graduate School requirements, hold a master's degree or the equivalent in a social science or a related field, and meet the criteria established by the Urban Studies Programs Faculty to be considered for admission:

- Three letters of recommendation from persons familiar with the applicant's academic work. Recommendation forms may be obtained from the Urban Studies Programs office.

- A sample of the applicant's written work that demonstrates the applicant's ability to conduct independent social science research and/or the ability to critically analyze the work of others.

- A letter of intent outlining the applicant's reasons for graduate study.

- GRE scores.

- A response to a question that elucidates the applicant's reasons for taking up the academic study of urban affairs and describes her/his intellectual ambitions in the field.

Course of Study
Minimum degree requirement is 33 credits beyond the master's degree, at least 27 of which must be earned in residence at UWM. Of the total credits required, 9 credits must be completed in methodology and analysis (USP 979, 982, 984), 9 credits in theory and history (USP 980, 981, 983), and 6 credits in the thesis course (USP 991). (Students may enroll for additional thesis credits but no more than 6 credits may be counted toward fulfilling the degree requirements.)

In addition, the student is expected to plan a program of study with the student's major professor in order to gain competence in a field of specialization. The possible fields of specialization include Urban Development, Human Service Organizations, and Race, Class, Gender, and Ethnicity. The student is required to take 9 credits (three courses) at the 700 level or

above in the specialization field, no more than 3 credits of which may be in independent study courses. The additional specific requirements for each specialization are described below.

SPECIALIZATION IN URBAN DEVELOPMENT: COMPARATIVE HISTORICAL AND COMTEMPORARY PERSPECTIVES

Six of the credits required in this specialization should be in History or in Comparative or Historical Sociology. Courses satisfying this requirement include History 833, 909, 924, and 930, Sociology 770 and 775, and other courses deemed appropriate by the Coordinator.

SPECIALIZATION IN HUMAN SERVICE ORGANIZATIONS

A student in this specialization must take 9 credits at the 700 level or above in the study of complex organizations or in some aspect of human service systems. Of these 9 credits, 3 credits must come from USP 985 or 986, Sociology 732, or other courses deemed appropriate by the Coordinator.

SPECIALIZATION IN RACE, CLASS, GENDER, AND ETHNICITY

A student in this specialization must take 9 credits at the 700 level or above in the study of inequality. Of these 9 credits, 3 credits must come from History 827, 831, or 912, Sociology 780 or 790, or other courses deemed appropriate by the Coordinator.

Residence
The PhD student may meet the residence requirement by completing 8 or more graduate credits in each of two consecutive semesters, exclusive of summer sessions, or by completing at least 6 graduate credits in each of three consecutive semesters, exclusive of summer sessions.

Doctoral Preliminary Examination
The student must pass a doctoral preliminary examination to qualify for formal admission to candidacy for the degree.

Dissertation
The candidate, working under the supervision of the major professor and the candidate's dissertation committee, must write a dissertation which demonstrates ability to formulate a research topic and pursue original investigation.

Dissertation Defense
The candidate must, as a final step toward the degree, pass an oral examination in defense of the dissertation.

Time Limit
All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.

For additional information on Graduate School PhD requirements, see the Graduate Student and Faculty Handbook.

Courses

Urban Studies Program (URB STD)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

450 National Urban Growth and Growth Control Policies-A Global View. 3 cr. U/G. A review of urban growth policies throughout the world in order to understand the underlying goals and objectives. Prereq: jr st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work level, content, and credts are determined and/or in specially-prepared program course work. Prereq: jr st; acceptance for Study Abroad Prog, contact CIE Overseas Programs, PER 166, 229-5182

601 Fundamentals of Urban Planning. 3 cr. U/G. Introduction to city and metropolitan planning. Includes the historical background, philosophy, theory, process, techniques, procedures, tools, and administration of planning. Prereq: sr st

607 Aging and Public Policy. 3 cr. U/G. The politics of aging policy, the substance and shift in major aging legislation, the 'graying' of the federal budget and its consequences for aging policy. Prereq: jr st; college-level course in Econ, Sociol, Pol Sci, or Urb Std recom

625 Law and Urban Poverty. 3 cr. U/G. Examination of the relationship between law and poverty, with emphasis upon federal legislative attempts in specific problem areas to alleviate the condition of poverty. Prereq: jr st; cons instr

639 Health Care Organization and the Low Income Consumer. 3 cr. U/G. Analysis of health care organizational structures and their impact on the delivery of health care to low income consumers. Prereq: jr st

701 Comparative Urban Development. 3 cr. G. A cross cultural examination of urban development analyzing the manner in which European and other countries approach the problems or urban growth and redevelopment. Prereq: grad st

704 Seminar in Non-Profit Organizations. 3 cr. G. Overview of structure, functions, and governance of non-profit organizations. Comparison with government and for-profit organizations. Pol Sci 704, Sociol 704, & Urb Std 704 are jointly offered; they count as repeats of one another. Prereq: grad st

719 Social Objectives Of Urban Development. 3 cr. G. Examination of the empirical and normative theory of urban communities and their social goals. Prereq: grad st

720 Theory and Method in Local Economic Development. 3 cr. G. Major economic concepts and methods relevant to the analysis of public sector economic development policy. Emphasis on spatial markets and local public finance. Prereq: grad st

725 Methods of Urban Community Development. 3 cr. G. A multi-disciplinary, applied social science approach to the development of organizational, institutional, and sub-community action systems in urban areas. Prereq: grad st & cons instr

726 Advanced Methods of Urban Community Development. 3 cr. G. Evaluation of model cities, community health, community corporations, decentralized government. Practice issues: program design, federal policy, consulting, training, participation, decision making process, economic feasibility. Future models. Prereq: grad st & cons instr

728 Urban Community Workshop. 3 cr. G. Group research into specific milwaukee problems conducted jointly under the supervision of departmental faculty and community leaders stressing practical and theoretical applications. Prereq: grad st

731 Quantitative Analysis for Public Administration and Urban Research. 3 cr. G. Application of various quantitative methods to problems in public administration and urban research, including analysis of spatial distributions, quantitative modeling, bivariate and multivariate analyses. Prereq: grad st

732 Applications of Computer Technology in Urban Affairs. 3 cr. G. Survey of applications and assignments in statistical analysis, data processing, projection, and simulation. Use of "canned" and original programs. Computer management issues. Prereq: grad st; cons instr, conc reg fortram short course

733 Public Program Evaluation. 3 cr. G. Scope and methods of evaluation: analytic background and skills necessary in evaluation. Discuss and analyze citizens' preferences, legislative intent, bureaucratic implementation, and goal attainment. Not open to students who have cr in Pol Sci 733 or Sociol 733, which are identical to Urb Std 733. Prereq: grad st

734 Urban Demography: Methods and Emerging Policy Issues. 3 cr. G. Major demographic processes (fertility, mortality and migration) are examined within the context of urban social policy. The principal focus is on methods required to assess demographic change. Prereq: grad st

740 Alternative Urban Futures. 3 cr. G. Introduction to planned or imagined urban futures. Emphasis on determining the ends-means relationships with special reference to the organizational, social and economic correlates of anticipated systems. Use and development of a selected methodology which deals with discontinuities. Prereq: grad st

741 Introduction to Metropolitan Development. 3 cr. G. Preview to metropolitan development from an analytical viewpoint. Emphasis on the quantitative tools and conceptual framework necessary to interpret phenomena in a metropolitan area. Prereq: grad st

770 The Law and the American City. 3 cr. G. Legal environment of american cities; powers of municipal corporations; relations of municipalities to state and federal governments as controlled by constitutions, statutes, and judicial decisions; special government units; local authorities and bill of rights limitations. Prereq: grad st

830 Seminar in Dynamics of Metropolitan Development. 3 cr. G. Overview of urban development, particularly the role of resource use and economic efficiency in the metropolis, with emphasis on functions of metropolitan subareas. Prereq: grad st; cons instr

832 Urban Policies: Analysis and Alternatives. 3 cr. G. Methods of determining policies in various areas of urban development. Emphasis on economic determinants of problems and effectiveness of alternative public actions and expenditures. Prereq: grad st; cons instr

833 Bureaucracies in the Public Sector. 3 cr. G. The roles of public bureaucracies in democratic political systems. Their structures, processes, and behavior. Prereq: grad st

840 Community Health Planning. 3 cr. G. Examination of processes of planning for delivery of integrated systems of health services to the urban community. Social, economic, political and organization factors are discussed and interrelated. Prereq: grad st

841 Health Policy in Urban Society. 3 cr. G. Emerging health policy in modern society. Emphasis on the uncertainty of goals, contending interest, and the urban context. Prereq: grad st

888 Candidate for Degree. 0 cr. G. Available for master's students who must meet minimum credit load requirement. Fee for 1 cr assessed. Prereq: grad st

890 Urban Social Institutions Institute: (Subtitled). 3 cr. G. Interdisciplinary study of selected urban and metropolitan problems. Focuses on the analysis of forces shaping the metropolitan milieu. Retakable w/chg in topic to 9 cr max. Prereq: grad st or cons UrbInst coord

901 Seminar: Urban Social Structure. 3 cr. G. Comprehensive analysis of the emergence and institutionalization of cultural and social patterns in urban settings; and future American urban social structures. Sociol 901 & Urb Std 901 are jointly-offered & count as repeats of one another. Prereq: grad st

911 Urban Development and Redevelopment. 3 cr. G. Urban development seen as a cycle: problem identification, policy response, development implementation, evaluation in redevelopment. Economic, social, and political development, private and public, national and local. Prereq: grad st

913 Seminar in Urban Political Process. 3 cr. G. Analysis of the forces and processes that shape urban political life, with particular emphasis on patterns of government, political culture, power structures, and civic participation in urban and metropolitan communities. Pol Sci 913 & Urb Std 913 are jointly offered; they count as repeats of one another. Prereq: grad st

921 Seminar: Research Methods in Urban Affairs. 3 cr. G. Methodological orientations and techniques in urban affairs: philosophy of science, conceptualization measurements, research designs, data collection, data analysis. Prereq: grad st

927 Urban Internship. 2-3 cr. G. Advanced application and analysis of theory and acquired skills in supervised agency assignment. Retakable to 6 cr max. Prereq: grad st

932 Labor, Leisure, and the American City. 3 cr. G. Interdisciplinary seminar organized to focus on urban policies and programs pertaining to the urban labor force and the quality of life. Prereq: grad st

933 Development of the Workforce in American Cities, 1880 to the Present. 3 cr. G. The factory and work setting in their relation with community and home life. Prereq: grad st

939 Urban Lifestyle and Holistic Health Care. 3 cr. G. Examines the implications of urban life style for health promotion and protection with special emphasis on developing appropriate health maintenance modalities. Prereq: Urb Std 639(P) or 841(P)

945 The Internal Structure of the City. 3 cr. G. The interaction of forces responsible for the evolution of the city as a spatial form and the allocation of economic and social activity within the spatial configura-

tion. Geog 945 & Urb Std 945 are jointly-offered; they count as repeats of one another. Prereq: grad st

960 Seminar: The City in Theory and Practice. (Subtitled). 3 cr. G. Problems of integration in urban theory and of the role of the urbanist in treating key public policy issues. Retakable w/chg in topic to 6 cr max. Prereq: grad st; regis in Urb Std prog

965 Municipal Management. 3 cr. G. The political, social, and economic contexts in which the urban manager functions, with an emphasis on managing municipal service delivery and resources. Pol Sci 965 & Urb Std 965 are jointly offered; they count as repeats of one another. Prereq: Grad st

970 Seminar-The City in History. 3 cr. G. Analysis of the historical forces that have helped shape urban life; examination of the role and use of history in social science research involving urban phenomena. Prereq: grad st

971 Seminar on the History of American Urban Problems. 3 cr. G. Historical analysis of the current problems of housing, race relations, the powers and functions of municipal government, law enforcement, and city planning in the United States. Hist 971 & Urb Std 971 are jointly offered; they count as repeats of one another. Prereq: grad st

979 Methods of Research and Analysis for Urban Social Institutions I. 3 cr. G. Seminar on logic, design, and presentation of social science research. Inductive and qualitative methods, theory construction, and ethics and procedures of research in natural settings. Sociol 979 & Urb Std 979 are jointly-offered; they count as repeats of one another. Prereq: grad st

980 Growth of Urban Society. 3 cr. G. Seminar in historical, social, and ecological growth and development of urban agglomerations. Comparative framework will be used to examine the urban process. Hist 980 & Urb Std 980 are jointly offered; they count as repeats of one another. Prereq: grad st

981 Perspectives Toward Change in Urban Social Institutions. 3 cr. G. Historical and ideological bases for urban social institutions. Growth of social institutions and role of government in supporting and controlling them. Prereq: grad st

982 Methods of Research and Analysis for Urban Social Institutions II. 3 cr. G. Evaluation of different methods of generating data and their applications to the analysis of public policies and programs. Sociol 982 & Urb Std 982 are jointly offered; they count as repeats of one another. Prereq: grad st; Sociol 760(P), Hist 595(P), or equiv MA level quantitative stats course

983 Contemporary Urban Social Structure and Change. 3 cr. G. Range of research issues conceptualized in terms of major categorical and more intentional social structures that bear on urban social actions. Prereq: grad st

984 Research Project in Urban Institutions. 3 cr. G. Structural research problem in which doctoral students can master research techniques needed in pursuing dissertation and later in career research. Prereq: grad st

985 Seminar in Urban Delivery Systems. 3 cr. G. Structure, processes, and roles of selected social service urban delivery systems as they relate to institutional responsiveness and societal needs. Prereq: grad st

986 Urban Public Policy and Social Institutions. 3 cr. G. Government forms and processes bearing on formation and implementation of urban social policies. Prereq: grad st

987 Urban Social Control. 3 cr. G. Graduate seminar introducing concepts of social control, pervasiveness of social control, and how social control is maintained in urban environments. Prereq: grad st

988 Seminar in Urban Social Institutions: (Subtitled). 3 cr. G. Historical and sociological forces shaping selected urban issues and social institutions. Retakable w/chg in topic to 9 cr max. Prereq: grad st

990 Master's Research or Thesis. 1-3 cr. G. Research or thesis work for students in the master's program in Urban Studies. Prereq: grad st

991 Doctoral Research or Dissertation. 1-6 cr. G. Research or dissertation work for students in the doctoral program in Urban Studies. Retakable. Prereq: grad st

998 Independent Study for Master's Students. 1-3 cr. G. Independent study in a subject area of special need or interest after consultation with a faculty member. Retakable w/chg in topic to 9 cr max. Prereq: grad st

999 Independent Study for Doctoral Students. 1-3 cr. G. Independent study in a subject area of special need or interest after consultation with a faculty member. Retakable w/chg in topic to 9 cr max. Prereq: grad st

Cross-listed Courses

The following courses may also be used to fulfill certain curricular requirements of the degree programs in Urban Studies.

Geography 441 Geography of Cities and Metropolitan Areas: Internal. 3 cr, U/G.

Geography 727 Qualitative Research. 3 cr, G.

Geography 734 GIS and Society. 3 cr, G.

Geography 742 Urban and Regional Dimensions of Global Economic Change. 3 cr, G.

Geography 880 Challenges to Urban Sustainability. 3 cr, G.

History 595 The Quantitative Analysis of Historical Data. 3 cr, U/G.

History 715 Research Methods in Local History. 3 cr, G.

History 800 Colloquium in American History: (subtitle - The New Suburban History). 3 cr, G.

History 900 Seminar on U.S. History: (subtitle - Labor in Urban America). 3 cr, G.

History 912 Seminar in American Ethnic History. 3 cr, G.

History 927 Seminar in American Urban History. 3 cr, G.

Political Science 705 Professionals and Volunteers in Nonprofit Organizations. 3 cr, G.

Political Science 769 Analyzing and Evaluating Public Policies and Programs. 3 cr, G.

Political Science 789 Theory and Role of Nonprofit Organization. 3 cr, G.

Political Science 913 Seminar in Urban Political Process. 3 cr, G.

Political Science 914 Seminar in Intergovernmental Relations. 3 cr, G.

Political Science 965 Municipal Management. 3 cr, G.

Sociology 760 Advanced Statistical Methods in Sociology. 3 cr, G.

Sociology 770 Urban Sociology. 3 cr, G.

Sociology 780 Race and Ethnic Relations. 3 cr, G.

Sociology 790 Social Stratification. 3 cr, G.

WOMEN'S STUDIES

College of Letters and Science

Phone: (414) 229-5918
E-mail: womens@uwm.edu

Graduate Certificate in Women's Studies

The Graduate Certificate Program in Women's Studies is designed for students enrolled in a graduate program in any field who wish to complement their training with an additional specialization in Women's Studies. A certificate signifying completion of the Certificate Program requirements will be awarded in conjunction with the student's graduate degree.

Students who previously received a master's or doctoral degree also may enroll in the Graduate Certificate Program as non-degree graduate students.

The following are the certificate program requirements:

1. Completion of 15 credits in approved graduate-level Women's Studies courses with an overall GPA of 3.0 or better in these courses.
2. Of the 15 graduate credits, 3 credits must be in one of the two Advanced Women's Studies Seminars (958-500 or 958-501).
3. Of the remaining 12 graduate credits, 6 credits must be from departments outside that in which the student is enrolled as a graduate degree candidate.
4. Of the 15 graduate credits, no more than 3 credits may be taken as independent study, whether in a department or through Women's Studies.

Students wishing to obtain the certificate must declare their intent to the Director of Women's Studies.

The graduate program will be overseen by the Women's Studies Advisory Council, a standing committee appointed by the Dean of the College of Letters and Science. The Advisory Council will conduct regular evaluations of the program and the graduate-level course offerings. For more information, to sign up for the certificate, or to obtain advising, please contact the staff at the Center for Women's Studies, Bolton Hall 735.

Courses

Women's Studies, Center For (WMNS)

Courses numbered 300 to 699 are Undergraduate/Graduate.
Courses numbered 700 and above are Graduate only.

400 Women's Studies Research and Methods: (Subtitled). 3 cr. U/G. Interdisciplinary course with focus on women's studies research methods, explored through selected topics such as 'Gendered Bodies.' Not retakable. Prereq: jr st & Wmns 200(P) or 201(P); or grad st

401 (effective 01/24/2005) Global Feminisms. 3 cr. U/G. Interdisciplinary study of women and gender in international perspective, including topics such as work, religion, ideology, and UN conferences. Satisfies L&S International req. Prereq: jr st.

401 Global Feminisms. 3 cr. U/G. Interdisciplinary study of women and gender in international perspective, including topics such as work, religion, ideology, and UN conferences. Prereq: jr st

497 Study Abroad: (Subtitled). 1-12 cr. U/G. Designed to enroll students in UWM sponsored program before course work levels, content, and credits are determined and/or in specially-prepared program course work. Retakable w/chg in topic. Prereq: jr st; acceptance for Study Abroad Prog

500 Advanced Social Science Seminar in Women's Studies: (Subtitled). 3 cr. U/G. Theoretical foundations of feminist research and exploration of the tools, methodology and analytical skills employed in interdisciplinary women's studies scholarship. Retakable w/chg in topic to 9 cr combined max for Wmns 500 & 501. Prereq: jr st; 6 cr in women's studies

501 Advanced Humanities Seminar in Women's Studies: (Subtitled). 3 cr. U/G. Theoretical foundations of feminist research and exploration of the tools, methodology, and analytical skills employed in interdisciplinary women's studies scholarship. Retakable w/chg in topic to combined max of 9 cr for Wmns 500 & 501. Prereq: jr st; 6 cr in women's studies

599 Topics in Women's Studies: (Subtitled). 1-3 cr. U/G. Specific topics, cr, and add'l prereqs announced in Timetable each time course is offered. Retakable w/chg in topic to 9 cr max. Prereq: jr st

999 Advanced Independent Work. 1-6 cr. G. Independent reading or project; topic selected in agreement with supervising professor. Retakable w/chg in topic to 9 cr max. Prereq: grad st; cons Wmns dir

Cross-listed Courses

300-699 Undergraduate/Graduate

The following courses may also be used to fulfill certain curricular requirements of the graduate programs in Women's Studies.

300-699 Undergraduate/Graduate

Africology 344 Political Movements and Organizations in the Afroworld. 3 cr, U/G.

Africology 565 Selected Texts/Topics in Afro American Studies: (Subtitles - Africana Womanism; The Novels of Toni Morrison). 3 cr, U/G.

Anthropology 641 Proseminar in Anthropology: (Subtitles - Women and Development; Lives of American Indian Women). 3 cr, U/G.

Art 309 Issues in Contemporary Art: (Subtitle - Contemporary Women Artists). 3 cr, U/G.

Art 449 Painting and Drawing Workshop: (Subtitle - Women in the Visual Arts). 3 cr, U/G.

Biological Sciences 675 Physiology of Reproduction. 3 cr, U/G.

Business Administration 443 Special Top-

ics in Human Resources Management: (Subtitle - Diversity in Organizations). 3 cr, U/G.

Comparative Literature 320 Literature of the Medieval World: (Subtitle - The Two Worlds of Women). 3 cr, U/G.

Comparative Literature 410 Classical Backgrounds of Modern Literature: (Subtitle - Feminist Theory and the Revision of Myths). 3 cr, U/G.

Comparative Literature 504 Seminar in the Novel: (Subtitle - Women Writers Across Borders). 3 cr, U/G.

Comparative Literature 533 Trends in Modern Literature: (Subtitle - H.D. Colette, and Feminism; Sexualities and Spaces). 3 cr, U/G.

Educational Policy and Community Studies 511 Workshops in Foundations of Human Relations: (Subtitle - Domestic Violence). 1-3 cr, U/G.

Educational Policy and Community Studies 522 Abusive Relationships: Community Problems, Community Solutions. 3 cr, U/G.

Educational Policy and Community Studies 579 Current Topics in Educational Policy and Community Studies: (Subtitle - Women's Activism: Beijing in Your Backyard. 1-3 cr, U/G.

English 380 Media & Society: (Subtitle - Sexuality & Representation). 3 cr, U/G.

English 392 Contemporary Film Criticism & Theory: (Subtitle - Queer Theory, Film & Video). 3 cr, U/G.

English 395 Feminist Film Criticism and Theory: (Subtitle). 3 cr, U/G. .

English 463 Major Figures in African-American Literature: (Subtitle - Toni Morrison & Gloria Naylor). 3 cr, U/G.

English 465 Major Women Writers: (Subtitle) Retakable w/chg in topic to max 9 cr. 3 cr, U/G.

English 502 Studies in English Renaissance Drama: (Subtitle - Whores, Witches, and Other Wicked Women). 3 cr, U/G.

English 547 Approaches to Literary Critics: (Subtitle - Feminist Literary Theory; Feminism and Gender Studies). 3 cr, U/G.

English 623 Seminar in American Literature: (Subtitle . American Women Regionalists). 3 cr, U/G/.

English 628 Topics in Literature by Women: (Subtitle). 3 cr, U/G..

English 631 Seminar in African-American Literature: (Subtitle - Images of Black Women in African American Fiction and Film). 3 cr, U/G.

English 685 Honors Seminar: (Subtitles - Auto-biographical Acts: Writing (and Otherwise Inventing) American Women's Lives; Captivity, Seduction and Politics of Domesticity in 19th Century American Literature). 3H cr, U/G.

French 665 Masterpieces of French Literature: (Subtitle - Women in Medieval Literature). 3 cr, U/G.

History 367 Women in Soviet Society: An Historical Survey. 3 cr, U/G..

History 370 Topics in the History of Religious Thought: (Subtitle - Women in Asian Religion). 3 cr, U/G.

History 373 Topics in Gender and History. 3 cr, U/G.

History 468 The American Feminist Movement: 1620-1963. 3 cr, U/G.

History 474 Topics in North American Indian History: (Subtitle - Gender in North American Indian History). 3 cr, U/G.

History 499 Special Topics: (Subtitle - From Board Room to Classroom, Women in Wisconsin History). 3 cr, U/G.

History 501 Honors Seminar in European & Third World History: (Subtitle - Gender and Power in the Renaissance). 3-4H cr, U/G.

History 600 Seminar in History: (Subtitle - Social Justice Movements in American Since 1945). 3 cr, U/G.

International Relations 550 Senior Seminar in International Relations: (Subtitles - Women in Cross-Cultural Perspective; Women and Politics in International Perspective). 3 cr, U/G.

Journalism and Mass Communication 660 Contemporary Issues in Mass Communication: (Subtitle - Race, Gender, and Media). 3 cr, U/G.

Music 449 Women in Music. 3 cr, U/G.

Philosophy 453 Special Topics in the History of Modern Philosophy: (Subtitle - Women Philosophers) 3 cr, U/G.

Philosophy 535 Philosophical Topics in Feminist Theory: (Subtitle - Feminist Theory: The Care of Mothering). 3 cr, U/G.

Philosophy 562 Special Topics in Ethics and Social and Political Philosophy: (Subtitle - Personhood and the Abortion Issue). 3 cr, U/G.

Political Science 333 Seminar in Comparative Politics: (Subtitle - Gender and Development). 3 cr, U/G.

Political Science 389 Politics & Philosophy: (Subtitle - Feminist Political Theory). 3 cr, U/G.

Political Science 419 Theories of Constitutional Interpretation. 3 cr, U/G.

Political Science 471 Problems in Law Studies: (Subtitles - Women, the Workplace, and the Law; Civil Rights Movements; Law and Sexuality). 3 cr, U/G.

Psychology 611 Current Topics (with appropriate subtitle). 1-4 cr, U/G.

Social Work 630 Women, Poverty and Welfare Reforms. 2-3 cr, U/G.

Social Work 640 Women and Aging: Issues, Concerns, Prospects. 2 cr, U/G.

Social Work 660 Women's Issues in Human Services. 2 cr, U/G.

Sociology 440 Sociology of the Family. 3 cr, U/G.

Sociology 475 Seminar in Feminist Social Theory. 3 cr, U/G.

Sociology 495 Pro-seminar in Sociology: (Subtitle - The Social Construction of Female Affiliation). 3 cr, U/G.

Spanish 401 Medieval Literature: (Subtitle - Love, Misogyny & Feminism in Spanish Medieval Literature). 3 cr, U/G.

Spanish 405 Golden Age Literature: (Subtitle - Women, Power, and Authority). 3 cr, U/G.

Spanish 507 Seminar in Latin American Literature: (Subtitle: Latin Women Writers). 3 cr, U/G.

Spanish 521 The Spanish-American Novel: (Subtitle - Spanish-American Women Writers). 3 cr, U/G.

Urban Planning 692 Special Topics in Urban Planning: (Subtitle - Women and Urban Living, Implications for Planning). 3 cr, U/G.

Cross-listed Courses

700-999 Graduate

Architecture 790 Special Topics: (Subtitle - Women and Environments). 3 cr, G.

Communication 802 Marital and Family Communication. 3 cr, G.

English 744 Feminist Critical Theory. 3 cr, G.

English 776 Women Writers: (Subtitles - Jane Austen and Her Critics; Fragmenting the Text: Women Against Colonialism; Renaissance Women Writers; The English Novel, 1800-1930). 3 cr, G.

English 778 Native American Literature: (Subtitle - The Woman's Voice). 3 cr, G.

English 780 African American Literature: (Subtitle - Zora Neale Hurston). 3 cr, G.

English 782 Contemporary Literature: (Subtitle - Tales of Love: From Woolf to Kristeva). 3 cr, G.

English 812 Seminar in Theories of Composition and Rhetoric: (Subtitle - Feminist Rhetorics). 3 cr, G.

English 820 Seminar in Advanced Topics in Literary Criticism and Research: (Subtitle - Feminist Theory and Criticism). 3 cr, G.

English 843 Seminar in Renaissance Prose and Poetry: (Subtitle - Women Writers). 3 cr, G.

English 851 Seminar in Restoration in 18th Century Literature: (Subtitle - The 18th Century English Novel: A Feminist Perspective). 3 cr, G.

English 853 Seminar in Contemporary Rhetorical Theory: (Subtitle - Feminist Theory and Pedagogy). 3 cr, G.

English 856 Seminar in Research and Scholarship: (Subtitle - The Pedagogy of Feminism). 3 cr, G.

English 862 Seminar in Victorian Literature: (Subtitle - Mad, Bad and Imbruted: Rebellious Women in the Victorian Novel). 3 cr, G.

English 875 Seminar in Modern Literature: (Subtitle - Virginia Woolf). 3 cr, G.

English 877 Seminar in Film Theory: (Subtitle - Seeing Queerly). 3 cr, G.

English 878 Seminar in Feminist Critical Theory: (Subtitles - Academic Feminist Literary Theory; Analyzing Film and Television; Feminism and Sexuality). 3 cr, G.

English 883 Seminar in Twentieth-Century American Literature: (Subtitle - Multiculturalism). 3 cr, G.

English 885 Seminar in Critical Theory: (Subtitle - Queer Theory). 3 cr, G.

French 935 Seminar: Studies in the French Novel: (Subtitles - Words of Women, Voices of Women; Women Writers). 3 cr, G.

History 850 Colloquium in European History: (Subtitle - Not Just Nuns: Women in Christianity and Judaism from Biblical Times to the Present). 3 cr, G.

History 900 Seminar in American History: (Subtitle - Race, Class, and Gender in American Life). 3 cr, G.

History 940 Seminar in Global History: (Subtitle - Gender, Religion and Colonization: 1450-1850). 3 cr, G.

History 950 Seminar in European History: (Subtitle - Christianity and Sexuality from New Testament Times to the Present). 3 cr, G.

Human Resources & Labor Relations 800 Current Issues in Industrial Relations: (Subtitle: Sexual Harassment in the Workplace). 3 cr, G.

Journalism and Mass Communication 860 Seminar in Mass Communication: (Subtitle - Pornography, Privacy, and Hate Speech). 3 cr, G.

Nursing 701 Women's Health in the Workplace. 3 cr, G.

Nursing 763 Issues in Women's Health and Development. 2-3 cr, G.

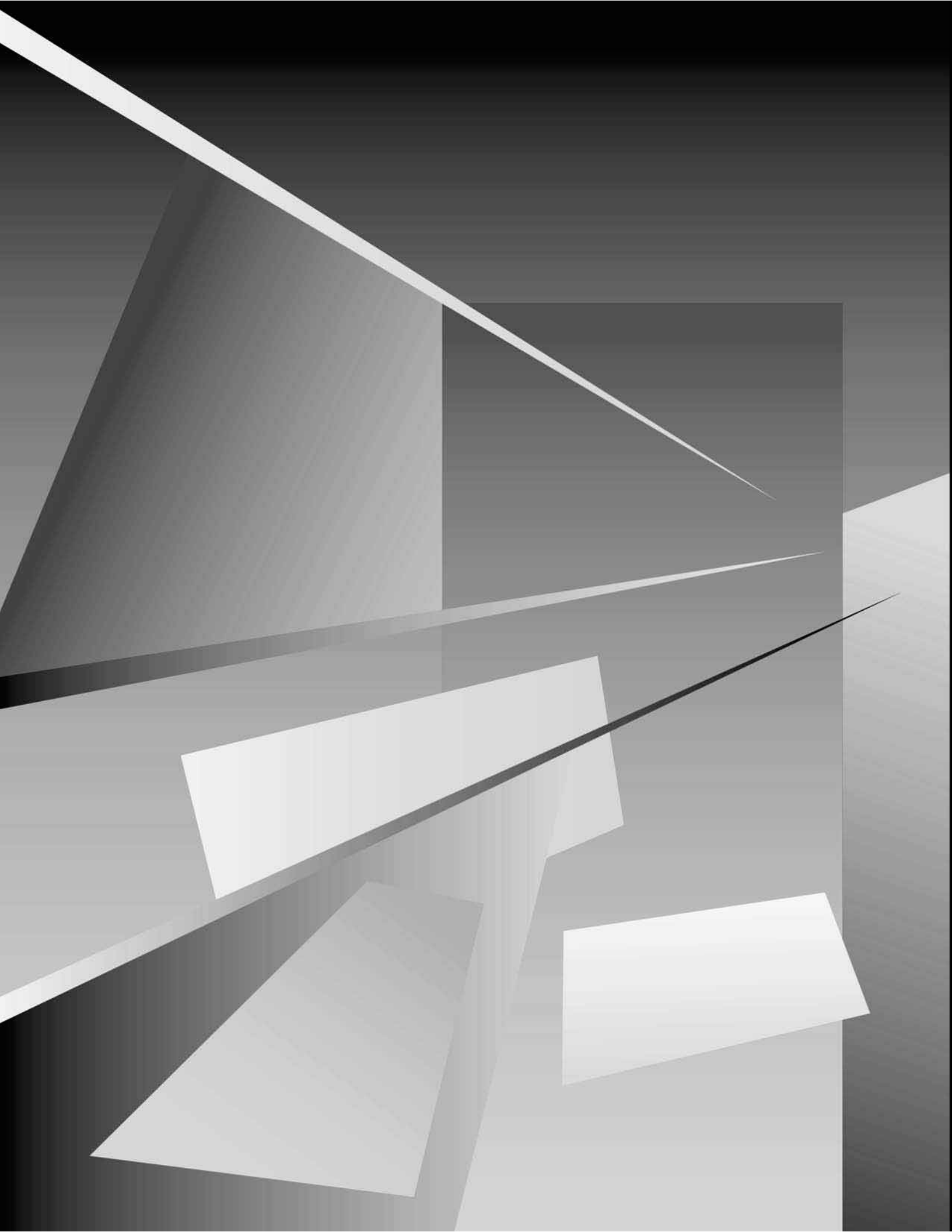
Nursing 779 Special Topics Seminar: (Subtitles - Current Issues in Women's Health Development; Health of Older Women). 3 cr, G.

Psychology 711 Current Topics in Psychology: (Subtitles - Feminist Perspectives in Psychoanalysis; Social Psychology of Gender). 3 cr, G.

Social Work 771 Development of the Family Over the Lifespan. 3 cr, G.

Social Work 791 Current Topics in Social Work: (Subtitle - Family Violence). 2 cr, G.

Social Work 820 Seminar in Social Work Practice: (Subtitles - Feminist Family Therapy; Intimate Partner Violence). 2 cr, G.

Sociology 927 Seminar in Sociology of Contemporary Institutiions: (Subtitles - The Family and the State; Issues in Family and Gender). 3 cr, G.

Spanish 801 Seminar in Spanish-American Literature: (Subtitle - Latin American Women Writers). 3 cr, G.