



**THE 1968  
ENGINEERING &  
MANAGEMENT COURSE**

**A SIX-DAY INTENSIFIED SHORT COURSE FOR ENGINEERS  
AND MANAGERS □ MARCH 18-23, 1968, AT THE UNIVERSITY  
OF CALIFORNIA LOS ANGELES CAMPUS □ UNIVERSITY OF  
CALIFORNIA EXTENSION, LOS ANGELES ❖❖❖❖❖❖❖❖❖**

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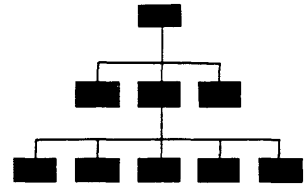
The College of Engineering and Graduate School  
of Business Administration, UCLA,  
and University of California Extension, Los Angeles,  
announce the 14th annual offering of

## **THE 1968 ENGINEERING & MANAGEMENT COURSE**

A Six-Day Intensified Short Course for Engineers and  
Managers ■ March 18-23, 1968, at the University of  
California, Los Angeles Campus

The Course begins with an orientation dinner Sunday evening,  
March 17, in the Student Union Building on the UCLA Campus.  
Regular activities of the Course are held from 8:00 a.m. to  
6:00 p.m., Monday, March 18, through Saturday, March 23.

FEE: \$450 (payable AFTER ACCEPTANCE—please do NOT  
send money with application) includes all textbooks and class-  
room materials, six luncheons, one dinner.



## OBJECTIVES

The Engineering and Management Course is an intensified six-day program designed to contribute to the professional development of engineering and management personnel. The program provides a full time schedule of instruction and study in a university environment. The course is planned to help the individual increase his effectiveness in the design, installation, and administration of systems which coordinate men, materials, machines, and money. Special emphasis is given to the improvement of communication and to understanding of human relationships. An unusual opportunity is offered to engage, both formally and informally, in a challenging interchange of knowledge and experience with members of the instructional staff and with other participants in the program.

## CHOICE OF PROGRAMS

Regardless of his position or organization, each individual attending the course will be able to tailor a program to his own needs. He can personally select classes which will assist him in either improving his current job performance or in

preparing himself for greater responsibilities. Each participant chooses one class in each of four daily instructional periods. Twenty-four subjects of instruction are offered. On Sunday, March 17, final registration and an orientation dinner in the Student Union Building on the UCLA Campus begin the program. Regular activities of the Engineering and Management Course are held from 8:00 a.m. to 6:00 p.m., Monday, March 18, through Saturday, March 23. A detailed schedule of classes is given on page 23 of this brochure.

## REQUIREMENTS FOR PARTICIPATION

There are no formal educational requirements for participation in the course. A desire to contribute to and benefit from a full interchange of knowledge, ideas, and experience is considered to be more important than formal training.

The fundamentals, techniques, and practices offered in the classes available in the Engineering and Management Course are applicable to both large and small organizations and to business, industry, and government. Participants came to attend the program last year from 26 states and 6 foreign countries.

**A cross section of job titles of past participants includes:**

Assistant Manager  
Assistant Plant Superintendent  
Assistant Project Engineer  
Chief Engineer  
Chief Mechanical Designer  
Chief Project Engineer  
Contracting Officer  
Corporate Controller  
Cost Accounting Supervisor  
Data Processing Supervisor  
Director of Personnel  
Director, Quality Control  
Director of Supply and Transportation  
Executive Vice President  
General Manager  
Industrial Engineer  
Industrial Relations Officer  
Manager of International Operations  
Manager of Maintenance  
Manager of Manufacturing Engineering  
Manager of Organization Planning  
Manager of Product Engineering  
Manager of Public Relations  
Marketing Manager  
Mathematician  
Operations Research Analyst  
Plant Manager  
President  
Principal Civil Engineer  
Process Engineer  
Ranch Manager  
Research & Development Administrator  
Safety Director  
Staff Technical Consultant  
Supervisory Physicist  
Supervisory Research Chemist  
Vice President, Production  
Vice President, Sales  
Wage & Salary Administrator

## SUBJECTS OF INSTRUCTION

The following brief descriptions of class material cannot include all details. Minor changes may be made to emphasize new areas in a field or to fit the needs of those enrolled. Each class is presented at the same instructional period each day for the six days of the course. Four classes are selected—one in each instructional period.

Class sizes are strictly limited in accordance with the type of class (whether laboratory, discussion, or lecture) so that participants may gain the greatest possible benefit.

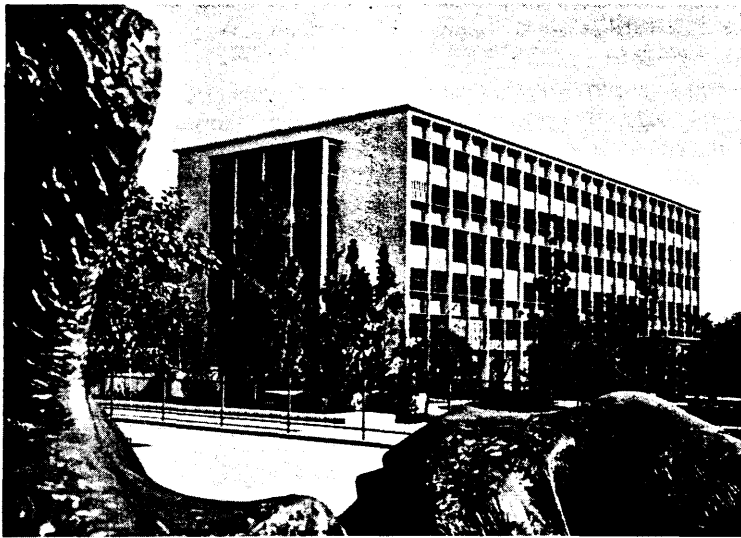
For convenience, a detailed class schedule is given on page 23 of this brochure.

### Class No. 1

#### PRINCIPLES OF PUBLIC SPEAKING

*PHELPS in Charge; MEADOR, ROSENTHAL*

This class is a concentrated study and application of the principles governing the presentation of information and the influencing of audience behavior through oral communication. Discussion of public speaking fundamentals covers the choice and development of subject matter, the organization of ideas for optimum clarity, and the delivery of speeches for maximum effectiveness. Other aspects include the projection of the personal image in the public speech, audience analysis and adaptation, and the audience dynamics. Class members participate in several oral exercises. These include speaking to inform, stressing techniques for the most effective communication of factual content (including the use of visual aids), and speaking to persuade, emphasizing the basic rhetorical principles for influencing belief or action on questions of policy. All assignments and lecture-discussions are oriented toward the uses of oral communication in the business or managerial environment. As a teaching aid, closed circuit television is used for two class projects; each participant is able to see and hear himself in a speaking situation; each speaker receives critical evaluation of all his speaking performances. The instructor also meets privately with members of the class to discuss any speech problems they may have.



The 1968 Engineering and Management Course is held in the Graduate School of Business Administration building on the UCLA campus.

**Class No. 2**  
**ELECTRONIC DATA PROCESSING FOR MANAGERS**  
**SPROWLS**

This class is an introduction to electronic data processing especially designed for managers without any prior digital computing experience. Among the topics to be covered are: functional components of a data processing system, computer programming, computer operating systems, systems design and planning, future potential in various operating and reporting functions within the business enterprise, and examination of on-line applications. Both small and large computer systems are demonstrated.

**Class No. 3**  
**LEADERSHIP PRINCIPLES**  
**JASINSKI**

There is a great need today for most managers to understand the factors that make for effectiveness in interpersonal relations. To meet this need, this class considers: (1) The interpersonal leadership process; (2) What makes for effective leadership? (3) Understanding the individual; (4) Communication: sending and listening; (5) Understanding the group; and (6) Introducing change—the individual, group, and organization. This class is recommended for those who desire to survey current ideas and methods based on both research and practice. This is a companion class to "Laboratory in Leadership." Although these classes may be taken separately, many past participants have stressed the value of taking both since they are closely related.

**Class No. 4**  
**GENERAL MANAGEMENT PRINCIPLES**  
**O'DONNELL in Charge; CAVE, RYAN**

Promotion for the technical specialist most frequently means movement from positions of relatively high degrees of specialization to positions that require less technical application but greater general managerial ability. General management and its application is the subject matter of this class. It is presented in the light of principles underlying the managerial functions of planning, organizing, staffing, controlling, and directing. The class is designed for managers of a wide range of levels and in all types of enterprises who have not previously taken such a course or who desire a "refresher" in this subject area.

**Class No. 5**  
**LABORATORY IN LEADERSHIP**  
**MacLEOD in Charge; DAVIDSON, DRULEY, MONOSOFF,**  
**REISEL, VOSEN**

Through active participation and intense personal involvement in a small sensitivity-training group, this laboratory provides participants with an opportunity to gain a better understanding of themselves and of their impact upon others, of what people are like and why they act as they do, and of the forces which promote or prevent their effective functioning. It is designed to help the participants feel differently—not merely think differently—about the numerous human relations problems they constantly face. This laboratory is recommended for those who enjoy learning by doing, since there is a high degree of individual participation and involvement. Conventional lectures and discussions are not a part of this experience. Persons taking this laboratory who have had close previous personal or working associations with each other should not attend the same section. If this occurs, assignment to another section will be made.

**Class No. 6**  
**THE MANAGEMENT OF INDUSTRIAL RELATIONS**  
**VAN DE WATER**

This class covers the following subject matter: industry's method of operation in the field of industrial relations; the structure of industrial relations departments and the handling of disputes; the growth of labor unionism in America, its patterns of organization and labor-management relations, and American industry's philosophy of union-company relations. It includes study of the growth of industry-wide bargaining; problems posed by a mammoth union and company power groups, and a study of solutions; management action in the presence of union organizing campaigns, a comprehensive view of the law which governs this field, studied from a practical case approach. A look to the future, and to our role as managers and employees in a free society—the challenge we face in a world of ideological conflict. Three lectures by other prominent specialists in the field are included.

**Class No. 7**  
**NETWORK-BASED PROJECT MANAGEMENT SYSTEMS (PERT/CPM)**  
**ARCHIBALD**

This class conveys a sound and thorough understanding of the advanced project management systems growing out of the nation's defense effort (PERT) and the construction industry (Critical Path Method). The fundamentals of these systems, their application, operations, and use as management tools are discussed using a recent text co-authored by Mr. Archibald. The role and usage of the computer are explained realistically, and the problems of organization, personnel, and procedures related to the practical use of PERT and CPM are explored. Advanced network-plan based systems which link time, cost, and manpower estimates and actuals are presented. The class objective is to provide the manager with a mature understanding of concepts, benefits, and limitations, as well as current and future problem areas.

**Class No. 8**  
**EFFECTIVE MANAGERIAL COMMUNICATION**  
**DOWNNS**

To be effective, information must be conveyed clearly and accurately. If the recipient is confused or misled by poor communication, his subsequent actions may be ineffectual or even disruptive. The size and diversity of modern organizations make the task of maintaining effective interpersonal and interdepartmental communications exceedingly difficult. This class focuses on the individual's thinking, evaluating, and analyzing, especially as they are related to his communication (speaking-listening-writing-reading) and his other interpersonal relations. Specific patterns of miscommunication are analyzed and corrective measures are offered.

**Class No. 10**  
**ELECTRONIC COMPUTING FOR ENGINEERS**  
**SPROWLS**

This is a class in the fundamentals of electronic computing especially designed for engineers without prior digital computing experience. Among the topics to be covered are: basic operations and functional components of an electronic computer; programming a computer; computer operating systems; program libraries, subroutines and functions for engineering applications; special engineering languages; and on-line systems. Both small and large computer systems are demonstrated.

**Class No. 11**  
**MARKETING MANAGEMENT**  
**CLEWETT**

More effective performance of technical specialists and managers on all levels is possible when they understand the role of the marketing function in the firm, its contribution to the total operating strategy, and its interaction with other functions. Discussions in these sessions focus on marketing management concepts as brought out in case problems and readings relating to products and services that have high technological inputs. The administrative process approach is used in considering markets to be served and products or programs to be offered, including servicing problems. Organization for marketing is also considered.



**Class No. 12**

**PRODUCTION AND OPERATIONS MANAGEMENT**

**DEMANGATE**

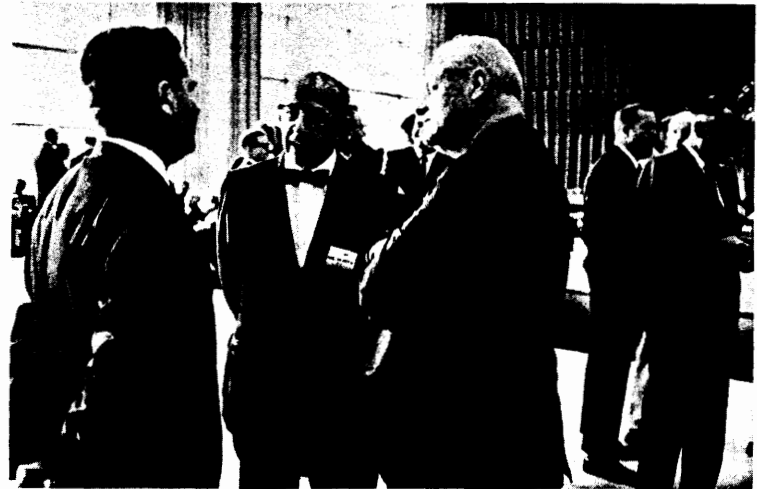
This class deals with the design and control of production systems used to achieve the objectives of production management: producing a product or service according to specifications—at the right time, in the proper quantities, and at minimum cost. It includes study of the principles and applications of labor cost control, production and inventory control, and facilities and equipment utilization. The class is designed to give participants an overall perspective of the functions of production management and the analytical and other techniques used to solve production problems. Illustrative cases and problems are discussed.

**Class No. 13**

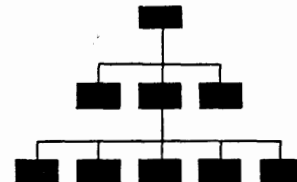
**ACCOUNTING FOR ENGINEERS AND MANAGERS**

**CARSON**

Accounting is related to nearly every phase of business management. An understanding of the nature, principles, conventions, and limitations of modern business accounting is needed by those concerned with enterprise operations. This class is designed to present the fundamentals and central problems of modern business accounting (without giving any attention to purely bookkeeping mechanics). Topics covered include fundamental accounting terminology, measurement of periodic business income, the "inventory problem," problems of depreciation measurement, basic principles of cost accounting (including "direct costing"), budget preparation and analysis, profit-volume analysis, and analysis and interpretation of financial statements.



The Course begins on Sunday evening with final registration and an orientation dinner.



### Class No. 14

## INDUSTRIAL OPERATIONS RESEARCH

STILLSON

Operations research provides the manager with the capability of solving complex operational problems involving interrelated activities within the company. These methods and techniques have now been successfully applied to such problem areas as production scheduling, inventory control, processing optimization, marketing, distribution, and competitive practice in most major industrial and business organizations. This class examines the methods and techniques of operations research as it is applied to typical industrial and business problems. Actual case histories of problem solutions are presented, reviewed, and evaluated. A special feature of the class is a workshop "solution" of an operational problem presented by one of the class members.

### Class No. 15

## CASES IN MANAGERIAL DECISION MAKING

POWELL

This class emphasizes the case method approach to the study of the managerial decision making process. Cases range from those dealing with basic policy formulation, organization dilemmas in modern industrial and governmental environments, inter- and intra-organizational communications, to analysis of the diverse human behavior problems about which the manager must make decisions. The purpose of the class is to provide an environment in which participants, through group discussions and experience sharing, can develop greater insights into the nature and practice of management and can have an opportunity to test and improve their ability to analyze and make decisions about problems similar to those encountered in the day-to-day performance of their jobs.

Each participant receives specially selected materials for the classes in which he is enrolled.



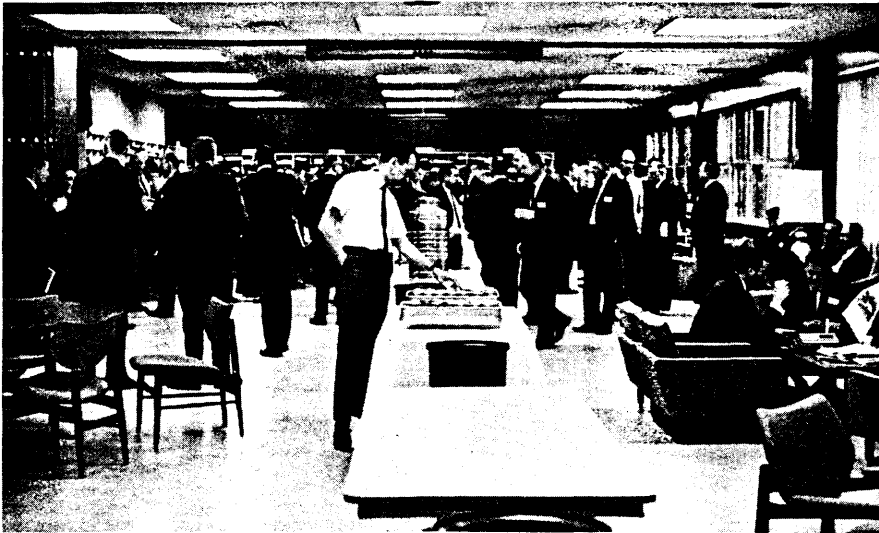
**Class No. 16**  
**INDUSTRIAL PSYCHOLOGY**  
**BRIGHOUSE**

This is a class dealing with applications of experimental and social psychology to engineering management situations. The group considers problems in goal-setting, organizing, staffing, and controlling as seen in the psychological perspectives of perceiving, emotion, and learning. Perceiving is the central thread of the class with emphasis on perceptive management. Consideration is given to the appraisal of applicants and of subordinates. The ethical questions involved in appraising, in counseling, and in attempting to change the behavior of subordinates are evaluated.

**Class No. 17**  
**PROFIT MANAGEMENT AND COST CONTROL**  
**GARDNER**

This class presents a study of problems surrounding profitable operations based on actual experience in all types of industries; how to determine, use, interpret, and compare the break-even behavior of any company. Among topics discussed are: the break-even concept, break-even analysis arithmetic, time and variable cost factors, capital and working capital requirements to insure sound growth. The problems in coordinating profit potentials and capital requirements, and problems covering control of departmental overhead, including engineering departments, are covered. Also covered is the important question of direct costing and the problems involved in return on investment. This latter problem covers the final and important coordination of the break-even point and the capitalgraph. Extensive use of examples show how break-even analysis can be used in managerial decisions concerning control of overhead determination, of selling prices, bonus plans, labor relations, and retail cost controls. This class helps non-accounting people understand and know how to secure more discerning information for control of costs and profits, and helps accounting people realize the importance of this requirement in their control presentations. A synopsis is given of financial problems encountered by management in securing funds from outside sources.

Coffee breaks in the Lounge provide time for relaxation and informal discussions.



## **Class No. 18**

### **MANAGING THE USE OF VALUE ANALYSIS AND ENGINEERING TECHNIQUES**

#### **MILES**

The knowledge, techniques, and procedures in the new technology of value engineering are required when it becomes necessary to provide high quality products or services at 25-50% lower cost without decreasing quality or customer values. New techniques, approaches, and understanding which allow the engineer and manager to deal effectively with such situations are developed in guided individual participation type of study. Methods for determining the requirements of the work, the organization of the men, their pacing, their measurement, and the evaluation of the degree of effectiveness are included in this instruction.

## **Class No. 19**

### **TECHNIQUES OF PROBLEM RESOLUTION IN THE BUSINESS CONFERENCE**

#### **LEATHERS**

This class is designed for all who take part in the business conference — whether as technical specialists or in managerial capacities. The participant works with practical, tangible techniques for overcoming predictable communication difficulties in discussion. Indeed, the primary class objective is to provide participants with the methods and communicative tools to maximize efficiency and productivity in the business conference. It is recognized that with high-priced technical and managerial talent around the conference table, the central aim of all concerned is the rapid, purposeful, and satisfactory solution of problems. To heighten consciousness of this central objective of the business conference the class provides: (1) A concrete, useful method for the analysis of, and consequent solution of, problems; (2) Specific techniques for reduction of inefficient communication in the business conference; and (3) Procedure for testing the available evidence for relevance and reliability. Discussions in class are video taped as a primary aid in evaluation of the participant's performance.





A variety of foods is offered at the daily buffet luncheons.



Members of the electronic data processing class tour one of the campus computing facilities.

A leisurely stroll across campus to the Student Union, where Course luncheons are held in a private dining room.



**Class No. 20**

**DEVELOPING CREATIVITY THROUGH MOTIVATION AND LEADERSHIP  
VAN DE WATER**

By lecture, case, and discussion approaches, this seminar presents the latest practical information and research results on the creative use of the human mind; "blind spots" to the optimum selection among alternative problem solutions, and steps toward overcoming such "blind spots"; planning the effective use of an individual's executive and professional time; gaining stability of creative work motivation; determining priorities in the setting of personal, social, family, and professional goals; scales of relative values for the Engineering Department and the Company; setting target dates and quantified objectives; human factors: the improvement of innovation, participation, and creativity; and a study of the factors and individual qualities making for effective leadership toward the above objectives.

**Class No. 21**

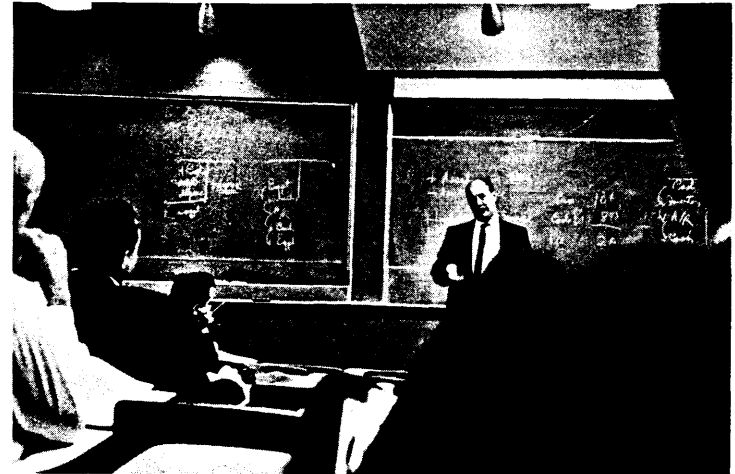
**MANAGERIAL FINANCE  
ANDERSEN**

Modern managerial planning and control make considerable use of the techniques of financial analysis and programming to help establish and achieve corporate objectives. The topics under managerial finance include business forecasting, the impact of the federal government's economical monetary policies on business conditions, sales forecasting, and forecasting the financial requirements for the individual firm. This class stresses identification of the key problems in managerial finance, techniques of analysis, principles of decision making, and the role of forecasting in financial programming. Considerable use is made of cases, problems, and analysis of current business conditions to illustrate the principles of managerial finance. Attention is devoted to the problems of short term business programming and long term corporate development. This subject matter is relevant to managers of major functions within the firm as well as chief executive officers.

**Class No. 22**

**LEGAL AND INCOME TAX CONSIDERATIONS IN BUSINESS  
ANDERSON**

This class presents a review and summary of basic business law. Consideration is given to legal and tax problems under various forms of business organization. Examination is made of the legal and tax aspects of business operations and of corporate combinations, sale, purchase, merger and acquisition. The role of corporate officers, directors and insiders of a publicly-held company is explored from the legal standpoint.



**Class No. 23****MANAGEMENT INFORMATION SYSTEMS****DRANDELL**

Effective management control demands timely and accurate information which shows the impact of decisions on the total business, decision criteria which allow rapid response to changing conditions, and organizational design based on information criteria. Systems analysis, combined with management science techniques and computers, is playing an increasingly important role in the development of new and improved management information systems which permit the manager to recognize, predict, and influence trends of important phases of the business so that a preconceived goal may be met. This class concerns itself with the use of data processing and management science techniques, such as linear programming and quadratic programming, in the development of management information systems. The important new concept of computer time-sharing is discussed. Linear programming models from finance, business, and industry are presented. In particular, a mathematical model of a portfolio selection program is presented as an example of the quantification of variables in the area of human affairs. Actual results using this model are discussed. The prime objective is to provide the manager with an insight into, and some understanding of, the new concepts of scientific management and its relationship to an information gathering system.

**Class No. 24****MANAGERIAL ECONOMICS****ANDERSEN**

Planning is one of the key managerial functions which has steadily increased in its importance and complexity. Planning usually makes extensive use of the principles and techniques of managerial economics in such matters as forecasting, pricing, and investment planning. The specific topics covered under managerial economics are regional and industry economic forecasting, break-even analysis, marginal cost and revenue analysis, pricing, and investment decision making. The class stresses (1) Identification of the major corporate problems which require the use of managerial economics; (2) Explanation of the principles and techniques of analysis in solving such problems; and (3) Present problems and cases which provide illustrations of how corporate economic decision making actually works. The participants obtain experience in analyzing typical problems in this area of business planning, and class time is used to discuss these problems and how they might be analyzed and solved.

**Class No. 25****READING LABORATORY FOR ENGINEERS AND MANAGERS****JENSEN in Charge; FIELDS, KIEDAISCH, WISEMAN**

The need for flexible reading skills is an integral and essential adjunct to efficient management and business practices. To meet this need, requirements for establishing flexible speed, building sound comprehension skills, and developing effective reading practices are presented. After initial testing, a program of group and individual reading techniques and exercises is given, thus affording the participant the opportunity to examine his needs and apply them in relationship to his work.



Neil H. Jacoby, Professor and Dean, Graduate School of Business Administration, UCLA



Chauncey Starr, Dean, College of Engineering and Professor of Engineering, UCLA

## PLANNING COMMITTEE

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Ralph M. Barnes, Professor of Engineering and of Production Management, UCLA



Joseph D. Carrabino, Assistant Dean for Executive Education, Academic Director of the Executive Program, and Professor of Management, Graduate School of Business Administration, UCLA

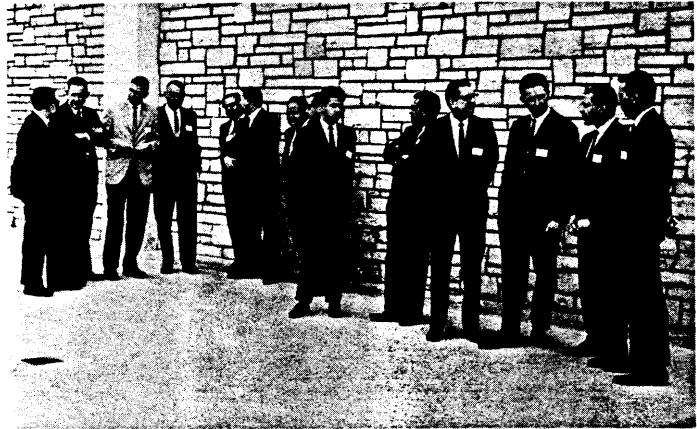


John C. Dillon, Head, Engineering and Physical Sciences Extension, University of California Extension, Los Angeles, and Lecturer in Engineering, UCLA

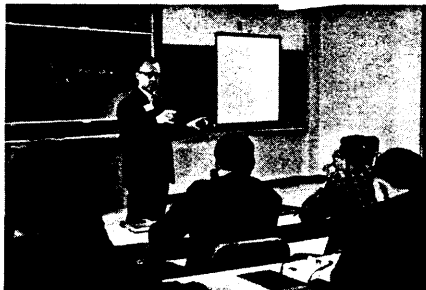
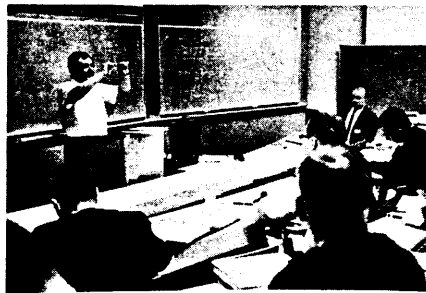
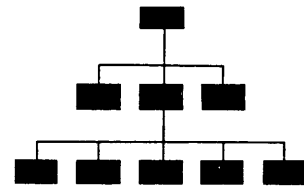


Russell R. O'Neill, Associate Dean, College of Engineering and Professor of Engineering, UCLA

**THE 1968  
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&  
MANAGEMENT  
COURSE**



**Participants from Canada, Libya, Mexico, Norway, Switzerland and Venezuela attended the 1967 Course.**



The wide variety of instructional methods vary from small discussion groups to lectures. Extensive use is made of instructional aids, ranging from planning charts in the *Network-Based Project Management Systems* class to video tape recordings in the *Principles of Public Speaking* class.

## STAFF

### **THEODORE A. ANDERSEN**

*Associate Professor of Business Economics and Finance, Graduate School of Business Administration, UCLA.* Theodore Andersen was educated at Purdue University, Harvard University, and University of Wisconsin, where he received his Ph.D. in Economics. He was the first Commissioner of the Economic Development Agency, State of California, 1959-60. His industrial experience includes positions as Manager of the Economic Research Department of Ford Motor, and Consulting Economist to such firms as General Motors, DuPont Chemical, IBM, Firestone Tire & Rubber, Douglas Aircraft, Wayne Mfg., Chase Manhattan Bank, Bankers Trust, Universal C.I.T., Pacific Finance, Wellington Investment, and United California Bank. Dr. Andersen served as Chief of the Economic Mission to Peru for the Alliance for Progress, and has conducted numerous management development programs in Mexico, Peru, and Bolivia, as well as in Southern California. During the Korean War he worked as an economist for the federal government in the price control program, and is now a consulting economist for state, county and city governments in California. He has published some forty books and articles on finance, economics, and business forecasting.



### **JOHN E. ANDERSON**

*Attorney at Law; Partner, Kindel & Anderson, Los Angeles and Santa Ana, California.* John Anderson received the B.S. degree from UCLA, the M.B.A. from Harvard Graduate School of Business Administration, and the LL.B. from Loyola University School of Law, where he now is a Professor of Law. He is also a Lecturer in Business Law at UCLA. Mr. Anderson is on the Board of Directors of several organizations including Applied Magnetics Corp., Bourns, Inc., Bulldog Electric Co., Emmett & Chandler, Inc., Gates, Kingsley & Gates, Inc., Mission Equities Corp., and he is former Director and President of Ojai Valley Orange Association (Sunkist). He has lectured for the Federal Tax Institute held at the University of Southern California, and for the Title Insurance & Trust Company Tax Forum. He is the author of several articles on taxation and accounting. Mr. Anderson is a Trustee, Claremont Men's College, and a member of the Regents Council, Immaculate Heart College. His memberships include the American Bar Association and the California State Bar.



### **ROBERT B. ANDREWS**

*Associate Professor, and Vice Chairman in charge of Quantitative Methods and Operations Management, Graduate School of Business Administration, UCLA, and Assistant Coordinator of the Engineering and Management Course.* Robert Andrews received degrees in Engineering from the University of California, Berkeley, and in Business Administration from UCLA. He was the recipient of a Sloan fellowship for postdoctoral studies at the Massachusetts Institute of Technology. In addition to teaching assignments at UCLA, he has engaged in research directed at the application of physiological, statistical, and socio-technical methods to the study and design of operational systems. He has been associated with both business firms and governmental agencies in a variety of consulting capacities and has served on the industrial engineering staffs of the Aluminum Company of America and the Parker Aircraft Company. He is the author or co-author of articles and syllabi on industrial engineering and work physiology topics.



### **RUSSELL D. ARCHIBALD**

*Associate, Booz, Allen and Hamilton, Inc., Los Angeles.* Russell Archibald attended the University of Missouri and the University of Texas, where he received the B.S. and M.S. degrees in Mechanical Engineering. He is now directing the development and application of PERT/CPM network-based project management systems for the construction industry, petroleum refinery maintenance, new product introduction in consumer fields, local government, and other applications. He has also held positions with Informatics, Inc., CPM Systems, Inc., Hughes Dynamics, Inc., Hughes Aircraft Company, Aerojet-General Corporation, and with the Creole Petroleum Corporation, Venezuela. He operated the POLARIS PERT system at Aerojet, has written and lectured extensively on network-based management information systems, and is co-author of *Network Based Management Systems (PERT / CPM)*, (Wiley, 1967). He has served as a private consultant to the USAF on PERT, as Technical Advisor to the B-70 Source Selection Board, and in facilities construction and public works planning. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics and a member of the Institute of Management Sciences and of Pi Tau Sigma.



### **GILBERT BRIGHOUSE**

*Professor of Psychology, Occidental College, Los Angeles.* Gilbert Brighouse received the B.S. and S.M. degrees at the University of Chicago and his Ph.D. at the State University of Iowa. He has been on the faculty of Occidental College since 1938. He is active as a consultant in the field of industrial psychology for engineering, manufacturing, and utility firms. In 1946-47, Dr. Brighouse served on a United States Department of Commerce Mission investigating the developments in industrial psychology in Germany, Scandinavia, and other Western countries. He is widely known as a lecturer and has written numerous articles and reports. He is a Fellow of the American Psychological Association and a past member of its Council. He has served as President of the Southern California Psychological Association.



**A. B. CARSON**

*Professor of Accounting, Graduate School of Business Administration, UCLA.* A. B. Carson received his formal education at Colorado College, Northwestern University, and the University of Nebraska. He was associated with Kaiser Company, Inc., and with the C.P.A. firm of Beesley, Wood and Co. He conducts the managerial accounting portion of the Executive Program of the UCLA Graduate School of Business Administration and University Extension. He is senior author of the text, *College Accounting*, and author of *The Public Accounting Profession in California*, as well as numerous articles in the *Accounting Review* and the *Journal of Accountancy*. Mr. Carson is a member of the American Institute of Certified Public Accountants and is a past president of the American Accounting Association. He has served on the Educator-Consultant Committee to the Comptroller General of the United States. In the summer of 1962, Mr. Carson was a Fulbright Lecturer at the University of Adelaide in Australia.

**JOHN W. CAVE**

*Lecturer in Business Administration, Graduate School of Business Administration, UCLA.* John Cave received his education at the United States Military Academy, West Point. He is a graduate of numerous service schools and postgraduate programs such as Columbia University's Graduate Executive Program, and the Industrial College of the Armed Forces for which he subsequently served on the faculty. His industrial experience includes five years in command of the weapons and ammunition testing divisions of the Army Ordnance Research and Development Center at Aberdeen Proving Ground, Maryland, and he also commanded two large ordnance maintenance depots in central Germany. He organized and conducted extensive technical investigations of German and Japanese ordnance developments. Just prior to his promotion to Brigadier General, he headed the Ordnance Board at Aberdeen Proving Ground. He was the principal planning officer of the Ordnance Corps, serving in Washington, D.C., as Assistant Chief of Ordnance, U.S. Army.

**RICHARD M. CLEWETT**

*Professor and Chairman, Department of Marketing, School of Business, Northwestern University, Evanston, Illinois.* Richard Clewett received the A.B. degree from the University of Nevada and the M.A. and Ph.D. degrees in Economics from the University of Pennsylvania. Before joining the staff at Northwestern, he held academic appointments at the University of California, Berkeley, and the University of Pennsylvania. His business experience includes positions with the Dutch Chain Stores, Universal Credit Co., and General Motors Acceptance Corp. In 1958-59, Dr. Clewett served in western European countries as a consultant for the Organization for European Economic Cooperation. He is a member of the Board of Directors, American Institute of Baking, and he has been a consultant to many firms in a wide variety of industries. He is co-author of *Cases in Marketing Strategy* (Irwin Inc., Rev. 1964); editor of several published texts on marketing; and was a member of the editorial staff of *Journal of Marketing*, 1950-58. Dr. Clewett received the Distinguished Service Award, American Management Assoc., 1964. His memberships include the American Economic Assoc. and American Marketing Assoc.

**RENO R. COLE**

*Professor of Engineering, UCLA, and Coordinator of the Engineering and Management Course.* Reno Cole received his formal education at the University of California, Berkeley. He has extensive experience in industrial work in the field of industrial engineering, production engineering, and metallurgical engineering, having served at various times as Manager of Time Study and Methods activities, Production Engineer, Chief Metallurgist, and Director of Research. His research interests are in the field of production engineering and he is the author of numerous technical papers. He recently spent six months studying the comparative development of advanced methods of material shaping in Europe and the United States. He is a member of Sigma Xi and Tau Beta Pi, honorary societies; the American Institute of Industrial Engineers, the American Society for Metals; and is a Registered Professional Engineer in mechanical engineering and also in metallurgical engineering.

**ROBERT S. DAVIDSON**

*Associate Clinical Professor of Medical Psychology, Department of Psychiatry and Human Behavior, UC California College of Medicine, Los Angeles.* Robert Davidson graduated from Princeton University and was awarded his Ph.D. in Psychology by the University of Southern California. In addition to teaching, Dr. Davidson is a Clinical Psychologist in private practice in Los Angeles, and is associated with the UCLA Institute of Industrial Relations as a sensitivity trainer. He is the founder and Executive Director of the Foundation for Personal Development, an organization which sponsors training workshops and research in perception and communication. He is also on the Attending Staff of Los Angeles County General Hospital. Since 1952, his major interest has been the study and use of the group process to promote effective interpersonal communication in marriage, the family, and industry. He is a member of the American Psychological Association, Group Psychotherapy Association of Southern California, and other professional organizations.

**DONALD C. DEMANGATE**

*Director, Management Engineering Division, EMSCO Engineering and Management Sciences Corporation, Woodland Hills, California.* Donald Demangate was educated at Rensselaer Polytechnic Institute and the University of California, Los Angeles, where he received his M.S. degree in Production Management. He has held key executive positions in several companies, including Chief Industrial Engineer, General Water Heater Company; and Division Comptroller and Executive Assistant to the Vice President, Consumer Division, Technicolor Corporation. He was a management consultant for several years with Price Waterhouse and Company, assisting clients in the areas of operations and general management. He has taught for University of California Extension, Los Angeles, for over 10 years, instructing courses in production management. Affiliations include Sigma Xi, Tau Beta Pi, and Epsilon Delta Sigma honor societies, and the American Institute of Industrial Engineers.



**CALVIN W. DOWNS**

Assistant Professor of Speech Communication and Human Relations, University of Kansas, Lawrence, Kansas. Calvin Downs received the B.A. degree from Harding College and the M.A. and Ph.D. degrees in Speech from Michigan State University. Before joining the staff of the University of Kansas, he was Director of Forensics, and Lecturer in Speech for the European Division, at the University of Maryland, Assistant Professor of Speech and Business Communication at Northwestern University, and a Visiting Professor at the University of Denver. He has served as a consultant with Republic Steel, Civil Service Commission, Wesley Hospital, Agency for International Development, Motorola, and Continental Casualty Insurance Company. Dr. Downs is currently doing research in the field of interviewing, and is writing a book on speech for professionals. His memberships include the National Society for the Study of Communication, the Speech Association of America, and the Central States Speech Association.

**MILTON DRANDELL**

Management Sciences Consultant, IBM Corporation, Los Angeles. Milton Drandell received his education at Southern Methodist University, University of Texas, and UCLA where he was awarded the Ph.D. in Mathematics. He taught in the mathematics department of the University of Southern California and then entered industry where he worked with Hughes Aircraft Co. and The Northrop Corp. His work is in the field of management science as applied to the area of management information systems. He has been in charge of groups developing computer programs for allocation of resources problems, including portfolio selection and linear programming applications. During the academic year 1966-67, he was on leave of absence from IBM to accept an appointment as Acting Associate Professor in the Graduate School of Business Administration at UCLA. Dr. Drandell has authored papers and done research in the areas of management information systems, linear programming models of business organizations, and portfolio selection models. He is a member of Phi Beta Kappa, Sigma Xi, the Operations Research Society of America, and the Institute of Management Sciences.

**KEITH A. DRULEY**

Chief Psychologist, Tri-City Mental Health Authority, Pomona, California. Keith Druley was awarded the B.A., M.A., and Ph.D. degrees in Psychology by UCLA, where he subsequently served on the staff of the Neuropsychiatric Institute as an Instructor of Medical Psychology. He was a member of the faculty of Claremont Graduate School, Assistant Director of the Psychological Clinic and Counseling Center of the Claremont Colleges, and has served as an assessment officer with the Peace Corps. He is currently active in leadership and human interaction training programs for University of California Extension, Riverside, and is a Consultant to the Department of Corrections, State of California, working in the area of development of leadership capabilities. Dr. Druley also has a degree of Bachelor of Divinity with Distinction from the Church Divinity School of the Pacific. In this capacity he has helped develop a mental health clinic associated with an Episcopal parish in the San Fernando Valley. Dr. Druley is a Certified Psychologist in private practice. He is a member of the American Psychological Association and California State Psychological Association.

**IRWIN H. FIELDS**

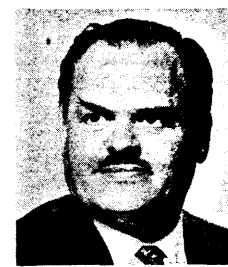
District Director of Special Projects, Centinela Valley Union High School District, Hawthorne, California. Irwin Fields received a B.A. degree in Psychology from the University of California, Los Angeles, and an M.A. degree in Special Education from California State College at Los Angeles. He has worked with reading problems at all grade levels from elementary to college. His teaching experience includes seven years as District Reading Coordinator and he has taught for Education Extension, University of California Extension, Los Angeles, for the past six years. He has also taught in the reading clinic at Occidental College. Mr. Fields has produced programmed materials for reading and has authored a number of articles which have appeared in the *Journal of Reading* and the *Reading Teacher*. He is a member of the International Reading Association and a past president of the South Bay Council of that association. He is also a member of the College Reading Association, the California Teachers Association, and a number of other professional organizations.

**FRED V. GARDNER**

Senior Partner, Fred V. Gardner and Associates, Milwaukee, Wisconsin. Fred Gardner received degrees in Engineering and in Business Administration from the University of Missouri and Harvard University. Prior to forming his present associations, he served in various management positions with the General Electric Company. In addition to his management consulting activities, in which he has served industry for over twenty years, Mr. Gardner has been an officer or a director of a number of industrial firms including Chain Belt Company, The Smith Steel Foundry, and the Appliance Corporation of America. At present he is a director of a Belgian, a Mexican, and a Japanese company. He also serves as a director of a company owned jointly by Ansul Chemical Company and Continental Oil Company. His publications include the books *Variable Budget Control* and *Profit Management and Control*. He is a member of numerous professional societies.

**FRANK J. JASINSKI**

Director, Career Development, TRW Systems, Redondo Beach, California. Frank Jasinski received his Ph.D. in Anthropology from Yale University where he taught in the Schools of Engineering and of Medicine. While at Yale he also did organizational research in a variety of business and industrial firms. His experience includes management consulting. At TRW Systems, Dr. Jasinski has been involved in organizational improvement including managerial and technical development and optimal utilization of professional, technical, and support personnel. He has been developing theory about and techniques in the leadership function in team development, in resolving intergroup conflict, and in organizational change. His articles reflect an interest in the influence of technological, administrative, and cultural factors upon organizational behavior. His memberships include the American Anthropological Association and the Society for Applied Anthropology.



**CHESTER A. JENSEN**

Coordinator, Reading Programs, Special Schools Division, Los Angeles County Schools. Chester Jensen received his formal education at the University of Wisconsin and the University of Montana, where he received his B.E. and M.Ed. in Reading Education. In 1956 he joined the faculty of the Psychology Clinic School at UCLA as a Demonstration Teacher, became a Teaching Supervisor in 1958, and has served as Assistant Director of the Clinic and Summer Sessions, and as the Supervisor of Teacher Training. He has worked extensively in the areas of learning disorders, specializing in Reading and Study Improvement for Adults which he has taught for University of California Extension, Los Angeles, since 1958. He has specialized in areas of speed reading and the development of effective reading practices. Recent lecture series conducted in the metropolitan area for teachers and administrative personnel have been well received. He is currently coordinating a remedial reading project in the Division of Special Schools of the Los Angeles County Schools. Mr. Jensen is a past board member of the Southern California Association of Remedial Teachers and is a member of several other professional societies and organizations.

**FRANK J. KIEDAISCH**

Reading Specialist, Santa Monica Unified School District, Santa Monica, California. Frank Kiedaisch received his Bachelor's degree in Sociology from Loyola University in Chicago and his Master's degree in Education from the University of Chicago. In addition to his present position as Reading Specialist with the Santa Monica Unified School District, for the past several years he has also taught courses and coordinated workshops in developmental and remedial reading for Education Extension, University of California Extension, Los Angeles. Mr. Kiedaisch has served as Reading Clinician and Diagnostician for the University of Chicago Reading Clinic, and as Director of Remedial Reading Workshops at the Wisconsin State University. He is a member of the California Teachers Association, National Education Association, National Council of Teachers of English, International Reading Association, and he is past president of the Santa Monica Chapter of the International Reading Association.

**DALE G. LEATHERS**

Assistant Professor of Speech, UCLA. Dale Leathers received his Bachelor of Arts in Sociology and his Master of Arts and Doctor of Philosophy in Speech from the University of Minnesota. While teaching courses in public speaking, persuasion, and discussion for four years at Minnesota, he conducted research on rhetoric and on communication breakdown in the business conference. At UCLA he uses the results of such research on small groups in the development of dialectical skills and insights necessary to reduce problem pressure in discussion. His consultative activities with both public and private groups involve sessions on effective discussion. Dr. Leathers is a member of the Speech Association of America, where his appearances have included a presentation on rhetorical criticism; the Central States Speech Association; the Western Speech Association; and Alpha Kappa Delta, national sociology honorary society.

**ANGUS G. S. MacLEOD**

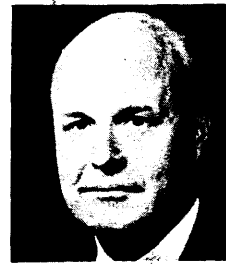
Administrator of Management Programs, Institute of Industrial Relations, UCLA. Angus MacLeod attended Amherst College and Columbia University, where he received the M.B.A. degree in the field of Industrial Relations. Before joining the UCLA staff in 1959, his extensive industrial experience included management and executive development, having served as personnel and training director for Gladding McBean and Continental Can Company. He now plans, coordinates, and conducts conferences, workshops, and seminars in the areas of industrial relations, personnel administration, and human relations. Mr. MacLeod has been a Lecturer in the Business and Economics Department, California State College at Los Angeles, for seven years. He has served as a consultant in training and personnel development for several business and industrial firms as well as city, state, and federal government organizations. He is a member of the Industrial Relations Research Association.

**PRENTICE A. MEADOR, JR.**

Assistant Professor of Speech, UCLA. Prentice Meador received his B.A. from David Lipscomb College (Nashville, Tennessee), and his M.A. and Ph.D. from the University of Illinois. Before joining the faculty of UCLA, Dr. Meador taught and coached debate at the University of Illinois. In addition to his teaching, he has conducted research in classical rhetorical theory, having published and presented papers in this field. He received a 1964 Faculty Fellowship which was used to further his research. In addition to his academic career, Dr. Meador is Minister of the San Fernando Church of Christ, San Fernando, California. He is the author of numerous articles in current religious journals. His memberships include Speech Association of America, Western Speech Association, Phi Kappa Phi, Delta Sigma Rho, Pi Kappa Delta, and American Philological Association. He has been named in the 1965 *Outstanding Young Men of America*; *Who's Who in the West*, 1967; and *Who's Who in American Education*, 1967.

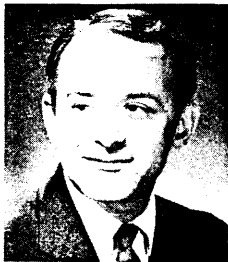
**LAWRENCE D. MILES**

Consultant, Miles Associates, Washington, D.C. Lawrence Miles received degrees in Education from Nebraska Wesleyan University and in Electrical Engineering from the University of Nebraska. Later he joined the General Electric Company as a design engineer. Mr. Miles managed General Electric's value engineering program for a decade. He developed a new set of techniques called Value Analysis or Value Engineering for efficiently identifying and eliminating unnecessary cost. Mr. Miles is recognized as the creator of this basic technology and as an international authority on the subject. He is the author of several dozen articles on various phases of this technology and authored the textbook *Techniques of Value Analysis and Engineering* (McGraw-Hill), which is now published in six languages. General Electric awarded him its highest honor for extra achievement; and Secretary of the Navy Gates awarded him the Distinguished Public Service Award for benefits to the United States.



**HARRIS MONOSOFF**

*Psychologist in Private Practice, Los Angeles.* Harris Monosoff was educated at Western Reserve University, Ohio State University, University of Southern California, and Stanford University, receiving the B.A., M.A., and Ph.D. degrees in Psychology. He has held positions with The Hacker Clinic and with the Westminister Neighborhood Association in Watts, California. In addition to his private practice, Dr. Monosoff also serves as Co-Director of Partnership Labs, Director of Psychological Services of the Big Sister League, and he is a trainer in the Sensitivity Training programs at UCLA. He has served as a member of the examining committee for the Certified, State Board of Medical Examiners. His memberships include Psi Chi and Phi Mu Alpha honorary societies, and the American Psychological Association.

**CYRIL J. O'DONNELL**

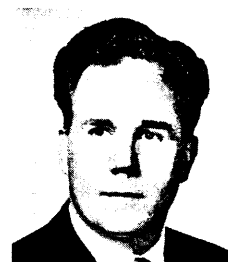
*Professor of Business Organization and Policy, and Chairman, Management Theory Division, Graduate School of Business Administration, UCLA.* Cyril O'Donnell was educated at the University of Alberta and the University of Chicago, where he received a Ph.D. in the field of Management. He has since augmented his academic background with extensive business and professional experience. Dr. O'Donnell has served with the War Labor Board, as an industrial engineer for the P. R. Mallory Company, Inc., and as President of the Indianapolis Distributing Company. He is a consultant to several domestic and foreign firms and government agencies, member of the Board of Directors, Everest & Jennings, Inc., and Director, Case Development Program, Graduate School of Business Administration, UCLA. His memberships include the American Management Association and American Academy of Management. He has written extensively in the field of management and is the author of *Business Management, Cases in General Management*, and the co-author of *Principles of Management*.

**WALDO PHELPS**

*Professor and Chairman, Department of Speech, UCLA.* Waldo Phelps received degrees from Santa Barbara College, Denver University, and the University of Southern California in the fields of Education and Speech. He has taught in the Burbank City Schools and was on the faculty of the University of Southern California before coming to UCLA. His responsibilities include that of University Marshal and Chairman of the Committee on Public Ceremonies. He also is Chairman of the Chancellor's Intercollegiate Athletic Advisory Board. Dr. Phelps has acted as consultant on speech problems for many professional organizations. He has published extensively in the field of speech education and is currently involved in a long-range experimental study of the effects of secondary school speech training on critical thinking ability. His memberships include the California Teachers Association Commission on Higher Education, the Western Speech Association, and the Speech Association of America.

**REED M. POWELL**

*Head, Management Sciences and Professor of Business Administration and Research, College of Administrative Sciences, The Ohio State University, Columbus, Ohio.* Reed Powell was educated at Harvard, Michigan State and Brigham Young Universities, receiving the Ph.D. in Behavioral Sciences. His postdoctoral work was in Management. He has served on the faculties of University of Oklahoma, Harvard and UCLA where he was active in executive education. He has recently been involved in programs for executives at Ohio State, Cornell, and Cambridge University in England. Dr. Powell has conducted research into the development and promotion of executives in the U.S., Canada, and Great Britain. From this research are current and forthcoming publications. He has received two faculty awards for "extraordinary excellence in teaching and counseling." His teaching and counseling extend to numerous business, governmental, military, and professional organizations in the U.S., Mexico, and England. Recently, he was appointed to the Senior Advisory Board of MacMillan Ltd., London, England, to assist in the development of British industry.

**JEROME REISEL**

*Psychologist in Private Practice, Beverly Hills, California.* Jerome Reisel has degrees from the City College of New York and from the University of California, Los Angeles. From 1956 to 1966 he served on the faculty of UCLA as Lecturer in Behavioral Science in the Graduate School of Business Administration, and as Graduate Research Psychologist in the Institute of Industrial Relations. At the present time he is a Research Associate on the staff of the Western Behavioral Sciences Institute, La Jolla, California. Dr. Reisel is co-author of the monograph *Inside a Sensitivity Training Group*. He has contributed other articles on sensitivity training and his major interest is in problems associated with the trainer role. He is a member of the American Psychological Association and several other professional societies and organizations.

**PAUL I. ROSENTHAL**

*Assistant Professor of Speech, UCLA.* Paul Rosenthal has been awarded a Bachelor of Arts in Political Science, and a Master of Arts and Doctor of Philosophy in Speech by UCLA. Prior to joining the UCLA faculty, he taught speech, argumentation and debate at San Fernando Valley State College. He has served in a consulting capacity in the field of argumentation and persuasion. His memberships include the Speech Association of America and the Western Speech Association. He is also a life member of Pi Kappa Delta, national speech honorary society, and Pi Sigma Alpha, national political science honorary society. He has presented papers at both the Speech Association of America and the Western Speech Association conventions, and has had articles on communication and persuasion published in the *Quarterly Journal of Speech* and *Speech Monographs*.



**WILLIAM G. RYAN**

*Executive Editor, Business Horizons; Faculty Lecturer in Business Administration, Graduate School of Business, Indiana University, Bloomington, Indiana.* William Ryan attended the University of California, Berkeley, and was awarded the degree of Master of Business Administration by Harvard University. He has extensive military experience including that of flying officer and of Missile Project Officer working on the initial plans for activation of Titan II, ICBM Squadrons. As an Associate Professor of Psychology and Management, Colonel Ryan developed the first course in Management and Administration given at the U.S. Air Force Academy. He also has taught psychology and economics. He was Research Associate for Harbridge House, Inc., of Boston, a management consultant organization specializing in management development and training programs, and he has served on the faculty at UCLA. He is the author (with Barry Richman and Richard Farmer) of *Incidents in Applying Management Theory* and (with George A. Steiner) of *Industrial Project Management*, and he has aided in the preparation of technical manuals on operations and programming.

**R. CLAY SPROWLS**

*Professor of Business Administration, Graduate School of Business Administration, UCLA.* Clay Sprowls received both the M.B.A. and the Ph.D. degrees in Economics and Statistics from the University of Chicago. Before joining the faculty of UCLA, Dr. Sprowls had industrial experience in quality control and has served as consultant to a number of industrial organizations. He has been on the academic staff of the University of Chicago. In addition to numerous articles in the fields of statistics and data processing, he is the author of the textbook *Computers: A Programming Problem Approach*. His professional memberships include the Association for Computing Machinery, the American Statistical Association, and the Institute of Management Sciences.

**PAUL STILLSON**

*Consultant in Operations Research; President, Paul Stillson & Company, San Rafael, California.* Paul Stillson established Paul Stillson & Company after long experience in the practice and teaching of operations research. He has held positions at Ramo-Woodbridge Corporation, the Los Alamos Scientific Laboratories, Lockheed Aircraft Corporation, Ernst and Ernst Company, and the Commercial Solvents Corporation, where he was Director of Operations Research and Design of Experiments. More recently, he was Supervisor of Operations Research and Statistics at Shell Development Company. He has been a Lecturer in Operations Research for the University of California, both at Los Angeles and Berkeley, since 1956. He studied at City College of the City of New York, University of Pennsylvania, and University of New Mexico, where he received his Ph.D. in Physical Chemistry. His memberships include the National Honorary Research Society of America, Operations Research Society, Institute of Management Science, and the American Chemical Society.

**JOHN R. VAN DE WATER**

*Adjunct Professor of Industrial Relations and Management, Graduate School of Business Administration, University of Southern California, Los Angeles.* John Van de Water attended the University of Chicago where he received his B.A. and J.D. degrees. He has held labor relations positions at North American Aviation and The Ford Motor Company. He is an Attorney at Law, a member of the California Bar, serves extensively as an industrial relations and management consultant, and is President of the consulting firm bearing his name. He has directed the Executive Development Programs of the Graduate School of Business Administration at UCLA. Dr. Van de Water has written numerous articles on labor law and industrial relations. His memberships include the American Management Association, the Personnel and Industrial Relations Association, the Industrial Relations Research Association, the Chamber of Commerce of the United States, and he has served on the management and industrial relations committees of the American Bar Association.

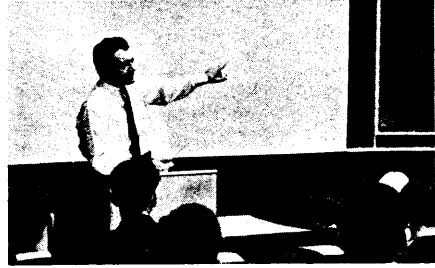
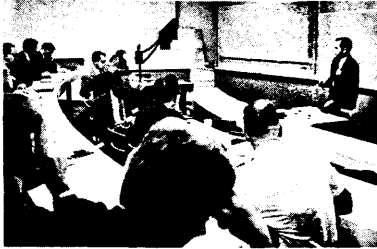
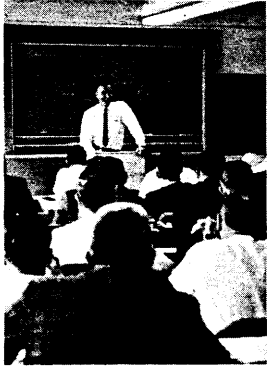
**LEONARD M. VOSEN**

*Psychologist in Private Practice, Beverly Hills, California.* Leonard Vosen received his Ph.D. degree in Psychology from UCLA. At present he is a staff Psychologist at the Los Angeles Psychiatric Service. He has held positions at the Veterans Administration, and the Student Health Service and Student Counseling Center at UCLA. Dr. Vosen has served as a consultant with Arizona State University's VISTA Training Program, Chino Department of Corrections, University of Southern California Department of Education, and UCLA Department of Behavioral Science. His main areas of interest and research center around sensitivity training and psychotherapy, with emphasis on the effects of self-disclosure upon self-concept and emotional health. He is a member of the American Psychological Association.

**MERLYN WISEMAN**

*Reading Specialist, Division of Secondary Education, Los Angeles City Schools.* Merlyn Wiseman received his formal education at California State College at Long Beach and the University of Southern California. He holds a Bachelor's degree in Social Science and a Master's degree in Education. He has served as a Reading Coordinator in a junior high school, working with remedial reading problems as well as the developmental and power reading aspects of the total reading program. Mr. Wiseman has conducted classes for adult education in both remedial and speed reading. He has presented a number of lectures dealing with various reading problems at workshops for teachers. In conducting a Teacher Activity Program, he aimed at identification and understanding of reading problems. He has served as Consultant to the SCOPE Reading Program with the Los Angeles City Schools. Mr. Wiseman's memberships include the Board of Directors of the Los Angeles Reading Council, the California Teachers Association, the National Educational Association, and other professional organizations.





The size of each class is specified by the instructor so that each participant has an opportunity to contribute to and benefit from the learning experience.

# SCHEDULE OF CLASSES

The participant chooses one class in each of the four instructional periods, as listed below.

PERIOD	HOURS	CLASS NUMBER	SECTIONS	CLASS TITLE AND INSTRUCTOR
		1	A	Principles of Public Speaking — <i>PHELPS in Charge</i>
		2		Electronic Data Processing for Managers — <i>SPROWLS</i>
		3	A	Leadership Principles — <i>JASINSKI</i>
		4	A	General Management Principles — <i>O'DONNELL in Charge</i>
	8:00-10:00 a.m.	5	A, B, C	Laboratory in Leadership — <i>MacLEOD in Charge</i>
		7		Network-Based Project Management Systems (PERT/CPM) — <i>ARCHIBALD</i>
		18		Managing the Use of Value Analysis and Engineering Techniques — <i>MILES</i>
		21		Managerial Finance — <i>ANDERSEN</i>
		25	A	Reading Laboratory for Engineers and Managers — <i>JENSEN in Charge</i>
	10:00-10:20 a.m.			Intermission and Individual Discussion
		1	B	Principles of Public Speaking — <i>PHELPS in Charge</i>
		4	B	General Management Principles — <i>O'DONNELL in Charge</i>
		5	D, E, F	Laboratory in Leadership — <i>MacLEOD in Charge</i>
		6		The Management of Industrial Relations — <i>VAN DE WATER</i>
II	10:20-12:20 p.m.	8	A	Effective Managerial Communication — <i>DOWNS</i>
		10		Electronic Computing for Engineers — <i>SPROWLS</i>
		11		Marketing Management — <i>CLEWETT</i>
		13		Accounting for Engineers and Managers — <i>CARSON</i>
		25	B	Reading Laboratory for Engineers and Managers — <i>JENSEN in Charge</i>
	12:20-1:40 p.m.			Luncheon Session
		1	C	Principles of Public Speaking — <i>PHELPS in Charge</i>
		3	B	Leadership Principles — <i>JASINSKI</i>
		5	G, H, I	Laboratory in Leadership — <i>MacLEOD in Charge</i>
		12		Production and Operations Management — <i>DEMANGATE</i>
III	1:40-3:40 p.m.	14		Industrial Operations Research — <i>STILLSON</i>
		15		Cases in Managerial Decision Making — <i>POWELL</i>
		16		Industrial Psychology — <i>BRIGHOUSE</i>
		17		Profit Management and Cost Control — <i>GARDNER</i>
		25	C	Reading Laboratory for Engineers and Managers — <i>JENSEN in Charge</i>
	3:40-4:00 p.m.			Intermission and Individual Discussion
		4	C	General Management Principles — <i>O'DONNELL in Charge</i>
		5	J, K, L	Laboratory in Leadership — <i>MacLEOD in Charge</i>
		8	B	Effective Managerial Communication — <i>DOWNS</i>
		19		Techniques of Problem Resolution in the Business Conference — <i>LEATHERS</i>
IV	4:00-6:00 p.m.	20		Developing Creativity through Motivation and Leadership — <i>VAN DE WATER</i>
		22		Legal and Income Tax Considerations in Business — <i>ANDERSON</i>
		23		Management Information Systems — <i>DRANDELL</i>
		24		Managerial Economics — <i>ANDERSEN</i>
		25	D	Reading Laboratory for Engineers and Managers — <i>JENSEN in Charge</i>

## ADMINISTRATIVE STAFF

Reno R. Cole . . . . . Coordinating Professor  
Robert B. Andrews . . Assistant Coordinating Professor  
Patricia C. Ingels . . . Administrative Assistant

## PLANNING COMMITTEE

Ralph M. Barnes . . . . Professor of Engineering and  
of Production Management  
Joseph D. Carrabino . . Assistant Dean for Executive  
Education, Graduate School of  
Business Administration  
Reno R. Cole . . . . . Professor of Engineering  
John C. Dillon . . . . . Head, Engineering and Physical  
Sciences Extension  
Neil H. Jacoby . . . . . Dean, Graduate School of  
Business Administration  
Russell R. O'Neill . . . Associate Dean, College of  
Engineering  
Chauncey Starr . . . . . Dean, College of Engineering

## ENROLLMENT

In order that each individual may have maximum opportunity for class participation, enrollment in the course and in each class is strictly limited. Priority of space is determined by order of receipt of course fee. Complete choice of subjects can be assured only by early enrollment.

Organizations may exercise the privilege of enrolling unnamed individuals and supply the names at a later date. However, a specific selection of classes must be forwarded with each application.

## FEE

The fee for the 1968 Engineering and Management Course is \$450 (payable AFTER ACCEPTANCE—please do NOT send money with application). This includes cost of all required texts and materials for classes in which the participant is enrolled, six luncheons and one dinner, parking, and use of all required University facilities and equipment. These elements are all essential to the planned instruction of the course and no provision can be made for reduced or partial

fees for less than full participation. Lodging and meals, other than those specified, are not included.

## ARRIVAL

Participants should arrive in Los Angeles early March 17, in order to attend the orientation dinner session starting at 5:00 p.m. in the Student Union on the UCLA Campus.

Upon acceptance of an application for enrollment, a complete informational packet is mailed to each participant. For the convenience of participants, the Engineering and Management Course Office, Room 2262, Graduate School of Business Administration opens at 7:00 a.m., Monday morning, March 18.

## LIVING ACCOMMODATIONS

Housing is available within reasonable distance of the University. For lodging only, most prices vary from \$7.00 to \$16.00 per day for single occupancy, and a second person may share a room for an additional charge of two or three dollars per day. For those who desire them, single and double apartments with kitchenettes are also obtainable. Participants are sent a list of accommodations showing distance from campus, features, and rates.

For breakfast and other meals not included as part of the course program, facilities are available on some days at the UCLA Residence Halls and always at the Student Union or at nearby Westwood Village restaurants.

## RECREATION

Southern California provides a wide variety of winter and summer sports, concerts, plays, television studio programs, and other entertainment for visitors. Specific information can be obtained from the Chamber of Commerce and other such sources in the various Southern California cities. The Engineering and Management Course staff will be glad to provide assistance and information.

## FURTHER INFORMATION

Additional information may be obtained by telephoning the course office at (213) 272-8911 or 478-9711, Extension 7157 or 7196, or by writing Reno R. Cole, College of Engineering, Room 6266, Boelter Hall, University of California, Los Angeles, California 90024.

**AAI** ■ **AC Electronics** ■ **Ace Drill Bushing** ■ **ACF Industries** ■ **Aerojet-General** ■ **Aerospace** ■ **AIRResearch Mfg.** ■ **Air Reduction Pacific** ■ **Airtex Dynamics** ■ **Ajax Tungsten** ■ **Alcoa Mining** ■ **Allied Record Mfg.** ■ **Allied Research & Engrg.** ■ **Aluminum of Canada** ■ **American Cement** ■ **American Chemical** ■ **American Hard Rubber** ■ **American Lithium Chemicals** ■ **American Machine & Foundry** ■ **American Meter** ■ **American Pipe & Construction** ■ **American Potash & Chemical** ■ **American Smelting & Refining** ■ **Ampex** ■ **Anaconda** ■ **Ansul Chemical** ■ **Applied Research Labs** ■ **Arabian American Oil** ■ **Archer Daniels Midland** ■ **Archer Engrg.** ■ **Argonne National Lab** ■ **ARINC Research** ■ **Armstrong Cork** ■ **Arrowhead Puritas Waters** ■ **Asbjorn Habberstad (Norway)** ■ **Atomics International** ■ **Automobile Club of So. Calif.** ■ **Autonetics** ■ **Baker Oil Tools** ■ **Bank of America** ■ **Bear Creek Mining** ■ **Beckler & Associates** ■ **Beckman Instruments** ■ **Bell & Howell** ■ **Bellows of Calif.** ■ **Bendix** ■ **Benton Rural Electric** ■ **Bill Jack Scientific Instr.** ■ **Bixby Ranch** ■ **Black, Sivalis & Bryson** ■ **Boeing** ■ **Bolt Beraner & Newman** ■ **Boyle Pharmaceuticals** ■ **Brown Engrg.** ■ **Buhler** ■ **Builders Brass Works** ■ **Burroughs** ■ **Bux-Shader Magnetic Products** ■ **Byron Jackson** ■ **C&H Supply** ■ **Caldwell, Richards & Sorensen** ■ **Calif. Alloy Products** ■ **Calif. Dept. of Public Works** ■ **Calif. Dept. of Water Resources** ■ **Calif. & Hawaiian Sugar Refining** ■ **Calif. Packing** ■ **Calif. Portland Cement** ■ **Calstrip Steel** ■ **Campbell Soup** ■ **Canadian Fina Oil** ■ **Canadian Superior Oil** ■ **Canadian Warren Pink** ■ **Cannon Electric** ■ **Canoga Electronics** ■ **Carbide & Carbon Chemical** ■ **Carboline** ■ **Carnation** ■ **Castle & Cooke Terminals** ■ **Celanese of America** ■ **Celanese Mexicana (Mexico)** ■ **Cementos Mexicanos (Mexico)** ■ **Central-Del Rio Oils (Canada)** ■ **Cerro De Pasco (Peru)** ■ **Chance Vought** ■ **Chandler Evans** ■ **Chanslor-Western Oil & Development** ■ **Chicago Rawhide Mfg.** ■ **Chicle Adams (Mexico)** ■ **Chiksan** ■ **Chile Exploration** ■ **W. A. Chittick (Philippines)** ■ **Cia. Industrial Jabonera del Pacifica** ■ **Collins Radio** ■ **Columbia-Geneva Steel** ■ **Comercial de Hermosillo (Mexico)** ■ **Commercial Credit** ■ **Computer Measurements** ■ **Consolidated American Services** ■ **Consolidated Electrodynamics** ■ **Consolidated Mutual Water** ■ **Consolidated Western Steel** ■ **Continental Can** ■ **Contour Forming** ■ **Cooper Development** ■ **Corning Glass Works** ■ **Costa Mesa County Water District** ■ **Credito Bursatil (Mexico)** ■ **Creole Petroleum (Venezuela)** ■ **Criterion Machine Works** ■ **Crown Zellerbach** ■ **Cummins Engine** ■ **Cutter Labs** ■ **Daimo Victor** ■ **Dana Motors** ■ **John Deere Killefer Works** ■ **Delco Radio** ■ **Del Prado (Bolivia)** ■ **Deluxe Labs** ■ **Devoe & Reynolds** ■ **Dickey Exploration** ■ **Dinwiddie Construction** ■ **Dole** ■ **Douglas Aircraft** ■ **Dow Chemical** ■ **Dow Metals Products** ■ **Ducommun** ■ **Duncan Foods** ■ **Eas-Lift Spring** ■ **Edgemar Farms** ■ **EG&G** ■ **Eitel-McCullough** ■ **Electrofilm** ■ **Electro-Hogar (Mexico)** ■ **Electromec** ■ **Electronic Communications** ■ **Electronic Components** ■ **Electronic Engrg.** ■ **Electronic Specialty** ■ **El Paso Natural Gas Products** ■ **Emerson Consultants** ■ **Emery Industries** ■ **Endevco** ■ **Enflo** ■ **Engr. 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Dept. of Public Works** ■ **Mathews Conveyor** ■ **Max Factor** ■ **E. H. Mettler & Sons** ■ **Mexicana de Maquinaria (Mexico)** ■ **Mill Polishing** ■ **Minneapolis-Honeywell** ■ **Minnesota Mining & Mfg.** ■ **MITRE** ■ **Mobil Chemical** ■ **Mobil Oil** ■ **Monogram Industries** ■ **Monsanto** ■ **Murdock & Son (Canada)** ■ **National Aeronautics & Space Admin.** ■ **National Bureau of Standards** ■ **National Cash Register** ■ **National City Bank** ■ **National Polytechnic Institute (Mexico)** ■ **Negociacion Azucarera Laredo (Peru)** ■ **C. A. Norgren** ■ **North American Aviation** ■ **Northern Illinois Gas** ■ **Northern Natural Gas** ■ **Northrop Norair** ■ **Nortronics** ■ **Nutrilite Products** ■ **Oakland, City of** ■ **Oklahoma, Public Service of** ■ **Olin Mathieson Chemical** ■ **Orchard Paper** ■ **Oscar Mayer** ■ **Owens-Corning Fiberglas** ■ **Öwens-Illinois Glass** ■ **J. 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