

410. Classroom Communication
Spring. 3(3-0) Majors and minors or approval of department.

Classroom as a communication system with emphasis on operationalizing philosophies of education in the environment, teacher and student roles and styles, affective and cognitive interactions, methods of systematic observation.

411. Directing the Debate and Forensic Program

Fall. 3(3-0) Majors and minors or approval of department.

Principles of and practice in argumentation; methods of coaching debate and individual events and managing tournaments; observation of high school tournaments, practices, and student congress.

413. Seminar in Communication Education

Winter, Summer. 4(4-0) ED 327.

Philosophies of curricular and co-curricular programs in communication education. Internship experience in those programs.

420. Message Design

Winter. 4(4-0) COM 101.

Principles and practice in message-media construction and selection.

499. Special Projects

Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 15 credits. Approval of project proposal by department.

Independent research, group research, student-directed group projects.

805. Communication Research

Fall. 4(4-0) First year graduate majors.

Communication research strategy and methodology. Scientific process, bases for derivation and verification of hypotheses, and basic methods of designing research in communication.

806. Communication Research

Fall. 4(4-0) COM 805; second year graduate majors.

Continuation of COM 805.

815. Organizational Communication

Winter, Spring. 4(4-0)

Structure and function of communication in organizations, with emphasis on concepts and principles needed for effective management of organizational communication processes.

820. Communication Theory and Process

Fall, Summer. 4(4-0)

Theoretic models of communication, with emphasis on the applications of communication theory to various professional communication areas.

821. Mass Communication Theory and Research

Fall, Spring. 4(4-0)

Current behavioral science theories and research, e.g., media institutions, decision-making, mass media exposure patterns, diffusion of news and influence, effective message strategies, political communication, and mass media in socialization.

822. Interpersonal Communication

Winter, Summer. 4(3-0)

Current theories and research in interpersonal communication with emphasis on persuasion. The role of interpersonal communication in such processes as conflict resolution and information exchange will be considered.

828. Cross-Cultural Communication

Winter, Spring, Summer. 4(4-0)

Role of communication in the economic, social and political development of less developed countries. Problems in communicating across cultural boundaries.

830. Nonverbal Communication

Winter. 4(4-0)

A review of theory and empirical research on nonverbal communication with implications for application.

850. Seminar in Research Utilization

Winter, Summer. 4(3-0) May reenroll for a maximum of 8 credits. Approval of department.

Applications of communication research to professional practice in such areas as teaching, change agencies, information system management, etc.

860. Persuasive Communication

Spring. 4(4-0)

Use of communication to gain compliance and effect social change. Study of persuasion and attitude change from classical theories to contemporary situations.

870. Communication and Change: The Diffusion of Ideas and Information

Fall, Spring. 4(4-0)

Research traditions underlying the diffusion of ideas and information, and acceptance of innovation and change. Strategic principles for introduction of change through the use of communication.

890. Special Problems

Fall, Winter, Spring, Summer. 1 to 6 credits. Approval of department.

Special problems as arranged with instructor.

899. Master's Thesis Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

905. Communication Research Design

Fall, Winter, Spring. 4(4-0) May reenroll for a maximum of 16 credits. COM 806.

Methods of data collection and analysis in communication research. Designing exploratory studies of the communication process. Interviewer training and bias. Content analysis of the mass media. Writing and critiquing research reports.

940. Seminar in Communication Theory and Research

Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 45 credits. Approval of department.

Theoretic and research issues in communication.

990. Special Problems

Fall, Winter, Spring, Summer. 1 to 6 credits. Approval of department.

999. Doctoral Dissertation Research

Fall, Winter, Spring, Summer. 1 to 36 credits. Approval of department.

COMMUNICATION ARTS AND SCIENCES (COLLEGE OF) **CAS**

492. Special Topics

Fall, Winter, Spring, Summer. 1 to 6 credits. Approval of department.

Varied topics pertaining to the study of communication processes.

IDC. Aging and Communication

For course description, see Interdisciplinary Courses.

892. Special Topics

Fall, Winter, Spring, Summer. 1 to 6 credits. Approval of department.

Varied topics pertaining to advanced study of communication processes.

999. Doctoral Dissertation Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

Dissertation research for the doctoral program in Mass Media.

COMMUNITY HEALTH SCIENCE **CMS**

(Name changed effective January 1, 1978. Formerly Department of Community Medicine.)

**College of Human Medicine
College of Osteopathic Medicine**

510. Health, Medical Care and Society

Summer. 2 to 5 credits. Admission to a college of medicine or approval of department.

The role of social, cultural and psychological variables in health and illness and in health care delivery. Special attention to patient/physician behavior and health maintenance, health education and patient compliance.

512. Epidemiology and Biostatistics

Winter. 2 to 5 credits. Admission to a college of medicine or approval of department.

Epidemiology and biostatistics in clinical medicine and health care delivery. Evaluation of medical investigations. Applicability to preventive medicine and health maintenance. Field experiences and seminars in community medicine.

513. Medical Jurisprudence

Fall. 2 to 5 credits. Admission to a college of medicine or approval of department.

Basic concepts of the legal process and the health care system. Law suits, malpractice, statutory and case law. Insurance and tax consideration. Continuing field experiences and seminars in community medicine.

514. Topics and Issues in Health Care Delivery I

Summer. 2 to 5 credits. Admission to a college of medicine or approval of department.

Medical economics, health care financing and organization, manpower utilization, resource allocation, health services administration, patterns of medical practice, politics of health care. Continuing field experiences and seminars in community medicine.

**Descriptions – Community Health Science
of
Courses**

515. Topics and Issues in Health Care Delivery II
Fall. 2 to 5 credits. Admission to a college of medicine or approval of department. Continuation of CMS 514.

516. Field Experience in Community Medicine I
Winter. 1 to 5 credits. Admission to a college of medicine or approval of department. Continuation of CMS 515 field experiences and seminars.

517. Field Experience in Community Medicine II
Spring. 1 to 5 credits. Admission to a college of medicine or approval of department. Continuation of CMS 516 field experiences and seminars.

518. Aging: Clinical and Community Perspectives
(H M 534.) Spring. 4(3-3) Medical student or approval of instructor. Multi-dimensional aspects of aging and their application to long-term, continuing care of the chronically ill older adult.

519. Health Education in Clinical Settings
Spring. 3(2-3) Approval of instructor. Application of concepts from social and behavioral sciences to clinical health education through laboratory and classroom experiences including development of a model educational plan for a specific health problem.

520. Biostatistical and Epidemiological Reasoning
Fall. 4(4-0) Approval of instructor. Interdepartmental with the Department of Statistics and Probability. Concepts and principles from biostatistics and epidemiology to facilitate critical reading literature relevant to clinical medicine and community health. Emphasis on design and interpretation.

521. Evaluation of Health Services
Spring. 2 to 4 credits. Approval of instructor. Interdepartmental with the College of Nursing. Use of experimental and quasi-experimental designs. Cost benefit and efficiency models. Assessment of health services delivery.

530. Care of the Elderly
Fall, Spring. 3(2-2) Student in H M, OST or other clinical program or approval of instructor. Interdepartmental with and administered by the Department of Family Practice. Case studies of the care of the elderly based on the physician patient-interaction with elderly persons and their families. Family systems applications to health care. Associated clinical experience.

543. Health and Adaptation of the Elderly
Fall. 3(3-0) Baccalaureate degree in health science; approval of instructor. Interdepartmental with and administered by the College of Nursing. Health and adaptation of the aged individual experiencing the normative biophysiological and psychodevelopmental changes related to the aging process.

590. Special Problems in Community Medicine
Fall, Winter, Spring, Summer. 1 to 8 credits. May reenroll for a maximum of 32 credits. Approval of department. Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.

600. Preventive Medicine and Public Health Clerkship
Fall, Winter, Spring, Summer. 2 to 12 credits. Successful completion of first two years of medical school. Clinical and community experiences in personal and community health services, environmental health, and other health and medical programs which meet health needs of various population groups.

605. Occupational Health Clerkship
Fall, Winter, Spring, Summer. 6 to 12 credits. Grade P in all courses offered in terms 1 through 8. The occupational health program in an industrial setting. Exposure to delivery of medical care to workers, treatment of industrial accident injuries. Review of safety and preventive medicine programs.

607. Ambulatory Care Clerkship
Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits. H M 602. Interdepartmental with the departments of Family Practice, Medicine, and Pediatrics and Human Development. Administered by the Department of Family Practice. Outpatient experience, lasting an equivalent of 48 half days over a period of six months or more, emphasizing continuous and comprehensive patient care under the supervision of appropriate physicians.

610. Geriatric Clerkship
Fall, Winter, Spring, Summer. 2 to 12 credits. Successful completion of first two years of medical school. Clinical and community experiences including history taking, patient assessment, development and use of management and care plan and use of community resources for the long term care of the aged.

619. Clinical Health Education Clerkship
Fall, Winter, Spring, Summer. 6 to 12 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8. Clinical experiences for developing and applying skills in patient and family health education. Identification of behavioral components of health care. Assessment of educational needs of patient and family.

620. Directed Studies in Community Medicine
Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 24 credits. Approval of department. Individual projects on special problems related to community medicine.

COMPUTER SCIENCE CPS

College of Engineering

110. Introduction to Computer Programming
Fall, Winter, Spring, Summer. 3(3-0) Students may not receive credit in both CPS 110 and CPS 120.

FORTTRAN programming, number systems and basic computer structure. Applications from various areas including business and social science.

120. Computer Programming for Engineers and Scientists
Fall, Winter, Spring, Summer. 3(3-0) MTH 111 concurrently. Students may not receive credit in both CPS 110 and CPS 120. FORTRAN programming, number systems and basic computer structure. Applications from engineering, mathematics and physical science.

124. APL-Computer Programming for Scientists
Fall, Winter, Spring. 3(3-0) LBC 112 or concurrently. Interdepartmental with and administered by Lyman Briggs School. APL programming; interactive programming techniques; arithmetic, logical, and extended APL operators; functions, applications to concurrent topics in mathematics; principles of operators of time-shared computers.

130. Computers in Society
Fall. 3(2-1) A non-technical introduction to computers, programming, applications and to the computer revolution. Topics: automation, data banks, privacy, the engineered society.

251. Algorithms and Computing I
Fall, Winter, Spring. 3(2-3) MTH 112. Algorithms, numeric and character data, data types, variables, expressions, decision structures, arrays, and procedures. Design and implementation of algorithms in PASCAL.

252. Algorithms and Computing II
Winter, Spring, Summer. 3(2-3) CPS 251, MTH 113. Problem solving methods, numeric computation, string processing, number and character representation, data structures, and programming style. Design and implementation of algorithms in PASCAL.

292. Selected Topics
Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 6 credits when different topics are taken. Topics selected will in general supplement and enrich existing courses, and lead to the development of new courses.

295. Independent Study
Fall, Winter, Spring, Summer. 1 credit. May reenroll for a maximum of 4 credits in CPS 295 and CPS 495 combined. Approval of department. Independent undergraduate research in computer science.

300. Computer Programming
Fall, Winter, Spring, Summer. 3(3-0) CPS 120 or approval of department; MTH 111. Development and implementation of numeric and non-numeric algorithms using FORTRAN. Number systems and representations of data. Concepts of storage, processors and compilers.