

990. Problems in Statistics and Probability
Fall, Winter, Spring, Summer. 1 to 4 credits. May re-enroll for a maximum of 10 credits. 873.
Seminar or individual study on an advanced topic in statistics.

995. Topics in Statistics and Probability
Fall, Winter, Spring. Variable credit.
Nonparametric statistics, multivariate statistical analysis, statistical time series analysis, Bayesian statistics, reliability theory, stochastic approximation, design of experiments, sets of decision problems, stochastic processes, sequential analysis, other topics.

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

STUDIO ART

See Art.

SURGERY

SUR

College of Human Medicine

608. Surgery Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 43 credits. H M 602.
An introduction to the surgical patient, stressing surgical diagnosis, pre-operative evaluation and post-operative care. Objectives are designed to help the student attain acceptable levels of surgical competence for physicians.

609. Otolaryngology Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Common otolaryngologic disorders, emergencies, including diagnosis and treatment, and judgments concerning proper management by primary physicians.

610. Plastic Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Principles of wound healing and tissue repair. Indications and applications of plastic procedures.

611. Urology Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Demonstration of clinical manifestations of genito-urinary disease, investigative methods and techniques of diagnosis and management, familiarity with urologic emergencies and performance of basic urologic skills.

612. Rectal Surgery
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Data collection, physical examination, and problem formulation relating to colon and rectal disease. Involvement in special techniques, examinations, and surgical procedures is an important aspect of the experience.

613. Orthopedic Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Diagnostic and management information and skills, including emergencies, in common orthopedic problems.

614. Neurosurgery Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
A hospital-based experience to provide the student with familiarity with the field and understanding of the contribution of neurosurgery in medicine generally.

615. Ophthalmology Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Development of skills and knowledge in ophthalmoscopy, neuro-ophthalmology, visual function, and management of problems such as glaucoma, the red eye, and trauma.

616. Thoracic Surgery Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.
Problem-solving in thoracic medicine and surgery, also stressing pulmonary physiology, use of diagnostic tools and tests, and indications for surgical procedures.

618. Anesthesiology Clerkship
Fall, Winter, Spring, Summer. 4 to 16 credits. May re-enroll for a maximum of 16 credits. H M 602.
Introduces common anesthetic agents and provides opportunity for performing anesthetic procedures under faculty supervision.

630. Emergency Medicine Clerkship
Fall, Winter, Spring, Summer. 4 to 8 credits. May re-enroll for a maximum of 8 credits. 608, H D 608 or MED 608; H M 602. Interdepartmental with and administered by the Department of Medicine.
Pathophysiology and other basic concepts will be used to explain the development of emergent conditions. Clinical diagnosis and treatment of emergencies seen in community emergency departments will be discussed.

SYSTEMS SCIENCE

See Electrical Engineering and Systems Science.

TELECOMMUNICATION* TC

College of Communication Arts and Sciences†

120. Telecommunication in the United States
Fall, Winter, Spring. 3(3-0) Non-majors.
History, economics, public control, programming, social effects and future of telecommunication; primarily radio and television broadcasting and cable communication. Citizen responsibilities in the development of telecommunication systems and services.

*Name change effective July 1, 1975.
Formerly Department of Television and Radio.
†Name change effective July 1, 1975.
Formerly College of Communication Arts.

210. Telecommunication Processes
Fall. 3(3-0) Sophomores.
Human communication processes and behavior as modified by telecommunication. Audiences of telecommunication. Functions and dysfunctions of telecommunication. Contemporary implications of telecommunication media on society.

220. History and Economics of Telecommunication
Winter. 4(3-2) 210.
Institutional and cultural development and underlying economic principles of the telecommunication field, including broadcast programs.

230. Basic Telecommunication Technology
Spring. 4(3-2) 220.
An analysis of technical factors involved in electronic communication: transmission, sound physics and aural technology, light physics, visual behavior and image technology, computer and automation controls, technical telecommunication policy formulation.

280. History of the Motion Picture
Fall, Winter. 4(2-4) Sophomores.
Development of the motion picture from its beginning to the present, emphasizing social background and cultural values. Screening of significant films from various periods and countries.

301. Basic Audio Production
(201.) Fall, Winter, Spring, Summer. 4(2-4) 230.
Basic orientation to audio and radio studios, with laboratory experiences in production, writing and performance.

302. Basic Video Production
(202.) Fall, Winter, Spring. 4(2-4) 301.
Basic orientation to video and television studios, with lab experiences in production, writing and performance.

310. Basic Telecommunication Policy
Fall, Winter. 4(4-0) Juniors, approval of department.
Essential U.S. public communication policy is treated through rigorous methodological analysis of case and statutory law, public documents and related primary materials.

335. Audience Survey and Analysis
Winter, Summer. 4(4-0) Juniors.
Designing research for the study of telecommunication audiences. Survey research, sampling, questionnaire construction, research administration. Analyses and interpretation of research results. Audience measurement services and feedback systems.

350. Advanced Radio Production
Winter, Spring. 4(2-4) 301 and approval of department.
Planning, coordinating and producing the radio program. Emphasis on documentary and studio productions utilizing original ideas and methods.

351. Television Studio Production
Fall, Spring. 4(2-4) Junior majors, 302 and approval of department.
Advanced television crew operations. Writing and production of programs directed by students in 451.

361. Television Directing
(333.) Fall, Winter, Spring, Summer. 4(2-4) 302 and approval of department.
Television producing and directing methods with assigned experiences in the television studios.

**Descriptions — Telecommunication
of
Courses**

390. Cinema I

Fall. 4(3-2) 280 and approval of department.

Survey of the film production process: concepts, techniques, procedures, problems, tools. Emphasis on production as the execution of film design.

396. The Documentary Film

Spring. 4(2-4) 280.

History of documentary film and analysis of documentary types, providing a solid basis for the understanding and evaluation of the non-fiction film. Screening of significant films.

399. WKAR-TV Internship

Fall, Winter, Spring. 2 credits. May re-enroll for a maximum of 4 credits. 302; telecommunication majors only; approval of department.

Internship in television studio operation.

401. Station Operations and Programming

Fall, Spring. 4(4-0) Seniors, 335 and 24 credits in telecommunication courses.

Sales, ratings, station organization, departmental functions, promotion, program formats, station-community relations, ascertainment of community needs, license renewal, stations-network relations.

415. Cable Communication

Winter. 4(4-0) Juniors.

History, technology, public policy, services, economics, management and social effects of broadband cable communication systems.

437. Television Program Development

Winter, Summer. 3(1-4) Senior non-majors.

Television production planning and practices. Designed for non-majors who desire a working knowledge of the medium for application in other fields.

451. Advanced Television Directing

Fall, Spring. 3(0-6) Senior majors, 361 and approval of department.

Assigned experiences in television directing of programs written and produced by students in 351.

489. Television and Radio in Education

Fall, Summer. 4(4-0) Seniors; Juniors with approval of department.

Uses of broadcast media for instructional purposes, both on-the-air and in the classroom. Current usages by institutions of higher learning and public schools, including both broadcasting and closed-circuit television. Survey of research studies of the effects of educational broadcasting. Types of educational programs are evaluated. Specialists in educational radio and television participate as guest lecturers.

490. Cinema II

Spring. 4(1-6) 390 and approval of department.

Theory and practice in film production: script, scheduling, shooting, editing, sound. Elaboration and implementation of Cinema I concepts.

498. International Telecommunication

Fall, Summer. 4(4-0) Seniors; Juniors with approval of department.

Alternative approaches to television, radio, cable, and satellite communication with examples from selected national and international systems. Telecommunication's role in national development. Conflict and cooperation in information distribution and propaganda.

499. Individual Projects

Fall, Winter, Spring, Summer. Variable credit. Junior Telecommunication majors and approval of department.

801. Trends and Issues in Telecommunication

Spring, Summer. 4(4-0) Approval of department.

Salient issues and prevailing trends in telecommunication. Consideration of interdependence and relationships within and between telecommunication systems, services, and society.

810. Telecommunication Policy Analysis

Winter. 4(4-0) 310, or approval of department.

Systematic interdisciplinary analysis of major public and private telecommunication policies applying tenets from law, political science, economics, communication, general social science and technology.

822. Art Instructional Media Laboratory II—Television

Fall, Winter, Spring, Summer. 4(1-9)

May re-enroll for a maximum of 8 credits. Approval of department. Interdepartmental and jointly administered with the Department of Art.

Analysis of teaching video tapes and television programs in art. Utilization of television as a medium of artistic expression and communication for application to art education or related fields.

825. Seminar in Instructional Television

Spring, Summer. 3(3-0) Approval of department. Interdepartmental with and administered by the College of Education.

Television use in instruction, particularly as it concerns the learner, the classroom teacher, the instructional developer and the administration.

830. The Television Producer

Fall, Winter. 4(4-0) 361 or approval of department.

Producer's functions in planning and supervising the execution of television programs, with emphasis on content, organization and use of production techniques to secure the intended audience response.

831. Research Methods in Broadcasting

Fall. 4(4-0) Approval of department.

840. News and Public Affairs Programming

Winter. 4(4-0) Approval of department.

Analysis of broadcast journalism functions in relation to program design. Writing practice in analytic and editorial forms. Programming responsibilities, legal and ethical restraints.

841. News and Public Affairs Producing

Spring. 4(2-4) Approval of department.

Researching, writing and producing extended news and public affairs reports.

850. Broadcast Management: Sales and Promotion

Winter. 4(4-0) 401 or approval of department.

Direction and supervision of station sales and promotion personnel in securing and servicing national, regional and local accounts.

851. Broadcast Management: Profit and Personnel

Spring. 4(4-0) 401 or approval of department.

The management of station finances and the motivation of station personnel.

880. Public Broadcasting

Winter. 4(4-0) 489 or approval of department.

Investigation of the role, organization, and problems of non-profit broadcasting by television and radio, especially since its recognition by federal legislation as an alternate program service to commercial broadcasting in the United States.

885. Teaching of Broadcasting

Summer. 4(4-0) Approval of department.

Philosophy and objectives of instruction in broadcasting. The undergraduate and graduate curricula. The content of radio and television courses and methods of teaching.

890. Special Problems

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

899. Research

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

941. Evaluation and Criticism in Broadcasting and Film

Winter. 3(3-0) Approval of department.

Formulation and application of standards for objective appraisal of the social, ethical and artistic aspects of radio, television and film programs.

990. Global Broadcasting: Foreign Domestic Systems

(995.) Winter. 4(4-0) 498 or approval of department.

Organization, financing, and programming as related to historic and cultural determinants. Special emphasis on the role of broadcasting in developing nations.

991. Global Broadcasting: International Systems

(995.) Spring. 4(4-0) 498 or approval of department.

Propaganda and information services. International coordinating organizations such as ITV, UNESCO, Eurovision, and Interservice. Developments in satellite communication.

THEATRE

THR

College of Arts and Letters

101. Theatre Appreciation: Foundations

Fall, Winter, Spring, Summer. 3(3-0).

Theatre arts as a recreational, cultural and social force in contemporary life; fundamentals of play production and analysis for critical appreciation.

103. Theatre Foundations: Stagecraft

Fall, Winter, Spring, Summer. 3(0-6)

Majors.

Materials utilized in theatre and necessary fabrication skills. Emphasis on structural qualities, color theory and design fundamentals.