

949. Advanced Applied Stochastic Processes

Winter. 4(4-0) MGT 836, 937. Interdepartmental with and administered by the Management Department.

Selected topics from the following areas: Semi-Markov, Markov-renewal and regenerative process models; Markov and semi-Markov decision processes; decision theory, applications from production, inventory, reliability, queuing, and gaming theory.

971. Advanced Theory of Statistics I

Fall. 3(3-0) 873, MTH 927, 981 or concurrently.

General decision theory. Concepts of loss, risk, admissibility, completeness, minimax and Bayes solutions. Sufficiency, equivariance and their associated reductions. Monotone likelihood ratio and exponential families. Optimality properties of tests.

972. Advanced Theory of Statistics II

Winter. 3(3-0) 971; 982 or concurrently.

Statistical convergence theorems. Variables and distributions in n -space. Asymptotic and exact sampling distributions. Tests of significance.

973. Advanced Theory of Statistics III

Spring. 3(3-0) 972.

Continuation of 972.

981. Advanced Theory of Probability I

Fall. 3(3-0) 863; MTH 927 or approval of department.

Measures on infinite product spaces and Kolmogorov's consistency theorem. Distributions and characteristic functions. Independence. Series of independent random variables.

982. Advanced Theory of Probability II

Winter. 3(3-0) 981 or approval of department.

Central limit problem: the classical limit problem, the bounded variances case, and limit laws for infinitely divisible random variables. Conditional probabilities and expectations. Martingales with discrete time.

983. Advanced Theory of Probability III

Spring. 3(3-0) 982 or approval of department.

Ergodic theory; individual and L_0 ergodic theorems. Second order processes, weakly and strongly stationary processes. Foundations; separability and measurability of processes; properties of sample functions. Continuous time martingales. Processes with independent increments.

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.

*Established February, 1971.

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.

617. Emergency Medicine Clerkship

Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 602.

Exposure to acute problems of wide variety is provided by this experience. Evaluation, management and disposition of patients is seen in the framework of the continuing patient care system.

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.

150. Introduction to Telecommunication

Fall, Spring. 4(4-0) Majors.

Nature, development, economics, social control and influence of the telecommunication media in modern society.

201. Fundamentals of Radio Broadcasting

Fall, Winter, Spring, Summer. 4(2-4) 150.

Basic orientation to the radio studio, with laboratory experiences in production, writing, and performance.

202. Fundamentals of Television Broadcasting

Fall, Winter, Spring. 4(2-4) 201.

Basic orientation to the television studio, with laboratory experiences in production, writing, and performance.

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.

*Name change effective July 1, 1975.

Formerly Department of Television and Radio.

†Name change effective July 1, 1975.

Formerly College of Communication Arts.

**Descriptions — Telecommunication
of
Courses**

**310. Basic Telecommunication
Policy**

Winter, Spring. 4(4-0) 150, 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.

333. Television Directing

Fall, Winter, Spring, Summer. 4(2-4)
202 and approval of department.

Television producing and directing methods
with assigned experiences in the television
studios.

**335. Television and Radio Audience
Studies**

Winter, Summer. 3(3-0) Juniors.

Analysis and evaluation of broadcast audience
measurement services and other feedback sys-
tems. Broadcast audience characteristics, atti-
tudes and behavior.

350. Advanced Radio Production

Winter, Spring. 4(2-4) 201 and ap-
proval 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,
202 and approval of department.

Advanced television crew operations. Writing
and production of programs directed by students
in 451.

390. Cinema I

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

Survey of the film production process: concepts,
techniques, procedures, problems, tools. Em-
phasis 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. 202;
telecommunication majors only; approval of
department.

Internship in television studio operation.

**401. Television and Radio Station
Management**

Fall, Spring. 4(4-0) Seniors and 15
credits in telecommunication courses.

Problems of station management in budgeting,
programming, sales, government regulation and
community relations.

**402. Television and Radio Station
Programming**

Winter, Spring. 4(4-0) Seniors and
15 credits in telecommunication courses.

Objectives and methods of planning television
and radio programs. Evaluation of individual
program formats and their relation to various
types of audiences and markets. Laws and
regulations affecting programming.

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,
333 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; Jun-
iors with approval of department.

Uses of broadcast media for instructional pur-
poses, both on-the-air and in the classroom. Cur-
rent 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 Broadcasting

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

Important national and international systems of
broadcasting, their history, programming pat-
terns and control.

499. Individual Projects

Fall, Winter, Spring, Summer. Vari-
able credit. Junior Telecommunication majors
and approval of department.

**801. Trends and Issues in
Broadcasting**

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

Salient issues and prevailing trends in broad-
casting. Consideration of inter-dependencies
and relationships within and between broad-
casting organizations and society.

**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 admin-
istered 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) 333 or approv-
al of department.

Producer's functions in planning and supervising
the execution of television programs, with em-
phasis on content, organization and use of pro-
duction techniques to secure the intended audi-
ence response.

**831. Research Methods in
Broadcasting**

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

**840. News and Public Affairs
Programming**

Winter. 4(4-0) Approval of depart-
ment.

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

**841. News and Public Affairs
Producing**

Spring. 4(2-4) Approval of depart-
ment.

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 tele-
vision and radio, especially since its recogni-
tion by federal legislation as an alternate pro-
gram service to commercial broadcasting in the
United States.

885. Teaching of Broadcasting

Summer. 4(4-0) Approval of depart-
ment.

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. Vari-
able credit. Approval of department.

899. Research

Fall, Winter, Spring, Summer. Vari-
able credit. Approval of department.

**941. Evaluation and Criticism in
Broadcasting and Film**

Winter. 3(3-0) Approval of depart-
ment.

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

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 Intervision. 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.

204. Intensive Sophomore Practicum
Fall, Winter, Spring, Summer. 12(0-40) Theatre apprenticeship conducted on MSU campus and at Calumet Theatre.

211. Sophomore Acting Practicum I
Fall. 4(0-10) 101, 103 or approval of department.
Intensive preparation of actor's physical and vocal instrument through exercises and improvisation and scene study.

212. Sophomore Acting Practicum II
Winter. 4(0-10) 211 or approval of department.
Continuation of 211.

213. Sophomore Acting Practicum III
Spring. 4(0-10) 211, 212 or approval of department.
Continuation of 212.

221. Introduction to Technical Theatre
Fall, Winter, Spring, Summer. 4(2-2) Non-majors only.
To acquaint the student with fundamental practice of stage appreciation and discipline with an opportunity to practice basic technical theatre skills.

223. Introduction to Acting
Fall, Winter, Spring, Summer. 4(0-4) Non-majors only.
Training the beginning actor to utilize his experiences to develop himself as an artistic instrument.

300A. Rehearsal
Fall, Winter, Spring, Summer. 1(0-1) May re-enroll for a maximum of 6 credits. Combined credits in 300A and 300B may not exceed 6. Approval of director.
A minimum of 6 hours of rehearsal per week in the public performance program of the University Theatre.

300B. Production
Fall, Winter, Spring, Summer. 1(0-1) May re-enroll for a maximum of 6 credits. Combined credits in 300A and 300B may not exceed 6. Approval of technical staff.
A minimum of 6 hours of production assignment per week in the public performance program of the University Theatre.

301. Directing and Design Practicum I
Fall, Winter. 4(3-3) 204 and approval of department.
Practice in directing for the theatre emphasizing the concept of the stage as an expressive medium for movement and graphic design.

302. Directing and Design Practicum II
Winter, Spring. 3(0-4) 301 or approval of department.
Continuation of 301.

303. Directing and Design Practicum III
Fall, Spring. 5(0-12) 302 or approval of department.
Continuation of 301 and 302.

304. Basic Production Design
Spring. 3(3-0) Approval of department.
Studio approach provides basic rendering and design techniques relative to effective costume and scenic design.

323. Intermediate Acting
Winter, Spring, Summer. 4(0-4) 223.
Continuation of 223 with emphasis on vocal interpretation and characterization.

406. Oral Interpretation
Winter, Spring. 3(0-4) 223 or 211.
Purpose is to train student to take written literature, explore background and interpretation and perform verbally and physically for audience. Poetry, prose and drama.

411. Acting Practicum I
Fall. 4(0-10) May re-enroll for a maximum of 8 credits. 213 and approval of department.
An intensive acting practicum designed to deal with problems in acting style as well as the extension of the actor's range.

412. Acting Practicum II
Winter. 4(0-10) May re-enroll for a maximum of 8 credits. 411 or approval of department.
Continuation of 411.

413. Acting Practicum III
Spring. 4(0-10) May re-enroll for a maximum of 8 credits. 412 or approval of department.
Continuation of 412.

414. Auditioning
Fall. 2(1-2) Approval of department.
Selection and preparation of audition materials to prepare the student for the audition situation.

415. Stage Dialects
Winter. 3(0-3)
Basic sounds, rhythms, melodies of several dialects using ear training method. Knowledge of phonetics, foreign languages helpful but not required. Students practice and perform each dialect.

416. Text Study for Actors
Spring. 3(3-0) May re-enroll for a maximum of 6 credits. 213.
Methodology and practice in dramatic textual analysis for performance. Authors vision, point of view, historical perspective, images.

421. Creative Dramatics
Fall, Winter, Spring, Summer. 4(1-3)
To prepare the prospective teacher in the use of creative dramatics as a teaching method. Dramatic play, playmaking, and pantomime

422. Theatre for Children
Fall, Spring. 3(1-3) 421 or approval of department.
Methods of bringing the dramatic experience to children.

431. Procedures for Design: Costume and Scenic
Fall of even-numbered years. 3(3-0) 303 or approval of department.
Instruction in fabrics, patterning, and survey of Western stage design.

432. Theatrical Makeup
Fall, Winter. 3(0-4) 204 or 213.
Theory and application of makeup for the stage.

433. Advanced Theatrical Makeup
Spring. 3(0-4) 432.
Continuation of 432.

434. Stage Costume Design
(440.) Spring. 4(0-4) 431 or approval of department.
Theory of costume design. Costume design problems.

435. Stage Scenery Design
(440.) Winter. 4(0-4) 304 or 431 or approval of department.
Theory of and special problems in stage design.

436. Stage Lighting Design
(440.) Fall. 4(0-4) 301 or approval of department.
Theory and practice in lighting design and equipment.

Western Theatre History Series

At least one course in the western theatre history series is offered every term on a sequential basis. The following catalog descriptions indicate when each course will be offered in the next two years.

471. Western Theatre History—500 B.C. to 1550
(802A.) Winter 1977, Spring 1978. 3(3-0) Juniors or approval of department.
Detailed examination of theatre architecture, design, audiences and the societal complex which housed the theatre, with emphasis on the classical contribution in theatre art and production.