

872. Statistical Decision Theory II
Winter. 4(4-0) 871; MTH 822 or concurrently.

Exponential families, complete sufficient statistics. Invariant statistical decision problems. Estimation of parameters and testing statistical hypotheses.

873. Statistical Decision Theory III
Spring. 4(4-0) 872; MTH 927 or concurrently; or approval of department.

Continuation of hypotheses testing, the two-sample problem, confidence sets, and the general linear hypothesis. Multiple decision problems.

876. Statistical Inference in Economics I

Fall. 3(3-0) 443 or 863; EC 812A or 801; or approval of department. Interdepartmental with the Agricultural Economics and Economics Departments and administered by the Economics Department.

Review and extension of single-equation regression models. Properties of least-squares estimators under alternative specifications. Problems of analyzing nonexperimental data. Errors in variable, autoregressive and heteroscedastic models.

877. Statistical Inference in Economics II

Winter. 3(3-0) EC 876 or approval of department. Interdepartmental with the Agricultural Economics and Economics Departments and administered by the Economics Department.

Specification interpretation and estimation of simultaneous equation models. Nonlinear models. Bayesian approach to estimation problems. Recent developments in econometrics.

878. Statistical Inference in Economics III

Spring. 3(3-0) EC 877 or approval of department. Interdepartmental with the Agricultural Economics and Economics Departments and administered by the Economics Department.

Validation and application of dynamic econometric models. Bayesian approach to estimation problems. Recent developments in econometric methods and in applied econometric research.

881. Probability and Stochastic Processes I

Fall. 3(3-0) MTH 821 or concurrently.

Discrete probability models, dependence and independence, random variables and expectation. Exponential and uniform densities. Special densities and mixtures. Multivariate densities. Probability distributions in \mathbb{R}^r .

882. Probability and Stochastic Processes II

Winter. 3(3-0) MTH 822 or concurrently.

Laws of large numbers, applications in analysis. Basic limit theorems. Markov processes and semi-groups. Renewal theory. Random walks in \mathbb{R}^1 .

883. Probability and Stochastic Processes III

Spring. 3(3-0) MTH 823 or concurrently.

Laplace transforms, Tauberian theorems, resolvents. Applications of Laplace transforms, Characteristic functions. Application of Fourier methods to random walks. Harmonic analysis.

886. Stochastic Processes and Technological Applications

Winter. 3(3-0) 441 or 861.

Discrete stochastic processes. Markov chains, birth and death processes, branching processes. Selected technological applications.

887. Stochastic Models in the Physical Sciences

Spring. 3(3-0) 886 or approval of department.

Selected models from the physical sciences. These may include topics from the theory of queues, the theory of dams, and branching processes in cosmic ray theory.

890. Statistical Problems

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

899. Research

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

927. Theory of Measure and Integration

Spring. 4(4-0) MTH 861. Interdepartmental with and administered by the Mathematics Department.

Introduction to the theory of integration over abstract spaces. Topics include: measure spaces; measurable and integrable functions; modes of convergence, theorems of Egoroff, Lusin, Riesz-Fischer, Lebesgue; absolute continuity, and the Radon-Nikodym theorem; product measures and Fubini's theorem. Applications to some of the classical theories of integration and summability.

971. Advanced Theory of Statistics I

Fall. 4(4-0) 873; 981 or concurrently.

Continuation of 873; more general treatment of topics using measure theory and measure-theoretic probability.

972. Advanced Theory of Statistics II

Winter. 4(4-0) 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. 4(4-0) 972.

Continuation of 972.

981. Advanced Theory of Probability I

Fall. 4(4-0) 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. 4(4-0) 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. 4(4-0) 982 or approval of department.

Ergodic theory; individual and L_p 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.

995. Advanced Topics in Statistics
Fall, Winter, Spring. Variable credit.

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

STUDIO ART

See Art.

SYSTEMS SCIENCE

See Electrical Engineering and Systems Science.

TELEVISION AND RADIO T R

College of Communication Arts

100. Foundations of Broadcasting
(271.) Fall, Spring, Summer. 3(3-0)

Origin, development, nature, and function of radio and television in modern society.

201. Fundamentals of Radio Broadcasting
(272.) Fall, Winter, Spring, Summer.

4(2-4) 100. Sophomore television-radio majors.

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

202. Fundamentals of Television Broadcasting
(353.) 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.

333. Television Directing
(433.) 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 systems. Broadcast audience characteristics, attitudes and behavior.

350. Advanced Radio Production
(450.) Spring. 4(2-4) 201 and approval of department.

Planning, coordinating and producing the radio program. Emphasis on documentary and studio productions utilizing original ideas and methods.

386. Broadcast Promotion
Winter, Spring. 4(4-0) 202 and Juniors.

Purpose, creation and production of promotional ideas and material in broadcasting. Introduces the student to the promotional facet of broadcasting, relating it to increasing sales, audience size and improving public relations.

390. Cinema I
Fall. 3(3-0) 280 or approval of department.

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

401. Television and Radio Station Management

(485.) Fall, Spring. 4(4-0) Seniors and 15 credits in television and radio courses.

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

402. Television and Radio Station Programming

(486.) Winter, Spring. 4(4-0) Seniors and 15 credits in television and radio 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.

403. Current Issues in Broadcasting
(497.) Spring. 4(4-0) Seniors and 15 credits in television and radio courses.

Critical examination of contemporary problems and issues in broadcasting. Resident and outside speakers. Preparation of significant research paper.

437. Television Program Development
Winter, Summer. 3(3-0) 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.

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
(391.) 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
(398.) Fall, Summer. 4(4-0) Seniors; Juniors with approval of department.

Important national and international systems of broadcasting, their history, programming patterns and control.

499. Individual Projects
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

801. Trends and Issues in Broadcasting
Spring, Summer. 3(3-0) Approval of department.

Salient issues and prevailing trends in broadcasting. Consideration of inter-dependencies and relationships within and between broadcasting 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. 437 or experience in the television field. Interdepartmental and administered jointly with the Art Department.

Review and analysis of teaching video tapes and television programs in art. Students may write television scripts, design sets and props, and teach in a taped or live closed-circuit or open channel program.

830. The Television Producer
Fall, Winter. 4(4-0) 333 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, Summer. 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
Fall. 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 Intervision. Developments in satellite communication.

THEATRE*

THR

College of Arts and Letters†

101. Theatre Foundations: Elements
Fall, Winter, Spring, Summer. 3(3-0) Majors.

An introduction to theatre production with primary emphasis on play script analysis. Plot, character, theme, and language are considered as they function in actual modern play production.

102. Theatre Foundations: Acting
Fall, Winter, Spring, Summer. 3(0-4) Majors.

Exploration of self and individual creativity as a tool of artistic expression through progressive exercises in improvisation, mime, dance, speech and play-making.

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. Instruction in techniques of shaping and altering provided.

121. Theatre Appreciation
(142.) Fall, Winter, Spring, Summer. 3(3-0) Non-majors only.

Theatre arts as a recreational, cultural, and social force in modern living.

* Effective July 1, 1968. Courses formerly in Speech and Theatre Department.

† Effective January 1, 1971. Formerly in College of Communication Arts.