

THEATRE

- 453*.** **Labanotation**
 Fall of odd-numbered years. 3(2-2)
 R: Not open to freshmen and sophomores.
 Theory and practice of labanotation with emphasis on notating movement, reading notated scores, and analyzing movement theory.
 QA: THR 403
- 454*.** **Choreography and Dance Production**
 Spring of even-numbered years. 3(2-2)
 P: THR 451 or THR 452.
 Intensive practicum in choreography. Principles and methods of dance production.
 QP: THR 401ATHR 401B QA: THR 404 THR 405
- 455*.** **History of Dance to 1900**
 Fall of even-numbered years. 3(3-0)
 R: Not open to freshmen and sophomores.
 Overview and anthropological perspective on selected ethnic forms of dance. Emphasis on dance idioms and dance artists as cultural expressions.
 QA: THR 493
- 456*.** **History of Dance since 1900**
 Spring of odd-numbered years. 3(3-0)
 R: Not open to freshmen and sophomores.
 Overview and anthropological perspective on dance. Modern dance artists and theorists. Contributions of theatrical dance forms.
 QA: THR 494
- 480*.** **Senior Seminar**
 Spring. 2(2-0)
 P: THR 341 plus 15 credits in Theatre
 R: Senior Theatre
 Contemporary theatre, dance and performance theory and practice for theatre seniors.
- 490*.** **Independent Study**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 6 credits.
 R: Approval of the Department
 Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
 QA: THR 499A
- 494*.** **Performance Tour**
 Fall, Spring. 3(0-6) May reenroll for a maximum of 6 credits.
 R: Acceptance into cast of touring production.
 Rehearsal for and participation in the various departmental touring productions.
 QA: THR 489
- 800*.** **Theatre Research Methodology**
 Fall. 3(3-0)
 R: Theatre
 Research techniques appropriate to theatre. Initial planning for Thesis or Dissertation.
 QA: THR 800
- 801*.** **Practicum in Theatre Arts: Acting**
 Fall, Spring. 3(0-8) May reenroll for a maximum of 18 credits.
 R: Theatre
 Acting techniques including improvisation, Stanislavskian techniques, to develop diverse acting skills.
 QA: THR 803A
- 802*.** **Stage Voice**
 Fall. 2(0-4) May reenroll for a maximum of 6 credits.
 R: Theatre
 Study and practice of principles and exercises for development of the speaking voice for actors. Application to selected dramatic texts.
 QA: THR 802

- 803*.** **Acting Theory**
 Spring of even-numbered years. 3(3-0)
 R: Theatre
 Theories, processes, techniques, and styles of acting set forth in the writings of prominent performers, teachers and critics.
 QA: THR 809
- 811*.** **Problems in Theatre Design**
 Fall, Spring. 3(2-2) May reenroll for a maximum of 15 credits.
 Characteristics and approaches toward the solution of design problems in costumes, scenery, lighting, architecture, properties or sound.
 QA: THR 804
- 812*.** **Twentieth Century Theatrical Design**
 Fall of odd-numbered years. 3(3-0)
 Scenic design concepts of 20th century through selected work of Appia, Craig and others to the present day.
 QA: THR 814
- 813*.** **Period Research & Resources for Directors and Designers**
 Fall of even-numbered years. 3(3-0)
 Methodology for researching historical artifacts and customs that directors and designers will adapt for use in sets, props, costumes and directing.
 QA: THR 815
- 831*.** **Studies in Theatre History**
 Fall, Spring. 3(3-0) May reenroll for a maximum of 12 credits.
 Selected periods and genres of world theatre history emphasizing the theatre as a cultural expression and a performance art.
 QA: THR 808
- 832*.** **Studies in Comparative Theatre and Drama**
 Fall, Spring. 3(3-0) May reenroll for a maximum of 12 credits.
 Interdepartmental with the Department(s) of English.
 Comparative study of selected playwrights, developments, movements and trends in world drama from their beginnings to the present time.
 QA: THR 805
- 833*.** **Dramatic Theory and Criticism**
 Fall. 3(3-0)
 P: THR 800 or Approval of Department
 Dramatic criticism and theory from the early Greek to the present.
 QP: THR 800 QA: THR 801A THR 801B
- 841*.** **Advanced Directing Practices**
 Spring of odd-numbered years. 3(2-2)
 May reenroll for a maximum of 6 credits.
 Directing theory and practice in contemporary theatre including research and experimentation.
 QA: THR 806
- 890*.** **Independent Study**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 8 credits.
 R: Approval of the Department
 Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.
 QA: THR 890

- 899*.** **Master's Thesis Research--Plan A**
 Fall, Spring, Summer. 2 to 4 credits.
 May reenroll for a maximum of 6 credits.
 R: Approval of the Department
 Directed research leading to a master's thesis, used in partial fulfillment of plan A master's degree requirements.
 QA: THR 899
- 990*.** **Doctoral Independent Study**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 12 credits.
 R: Approval of the Department
 Special projects, directed reading, and research arranged by an individual doctoral candidate and a faculty member in areas supplementing the regular course offerings.
 QA: THR 990
- 999*.** **Doctoral Dissertation Research**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 24 credits.
 R: Approval of the Department
 QA: ENG 999

URBAN PLANNING UP

- 201.** **The Role of Planning in Urban and Regional Development**
 Fall. 3(03-0)
 Contemporary urban issues, historical contexts, and the role of planning in the solutions of the problems faced by cities and their surrounding regions.
 QA: UP 200 OR UP 400
- 231*.** **Presentation Techniques for Planning and Design Professionals**
 Fall. 2(0-.8)
 Uses of graphic, photographic video and computer generated media to make presentations to clients and community groups.
 QA: LA 120
- 231A*.** **Presentation Techniques for Planning and Design Professionals**
 Fall. 2(0-.8)
 C: LA220
 Uses of graphic, photographic video and computer generated media to make presentations to clients and community groups.
 QA: LA 120
- 231B*.** **Site Design for Planners and Developers**
 Fall. 2(0-8)
 P: UP 231A C: LA 220 R: Social Science
 Soils, drainage, elevations, view, topography, utilities, wetlands, and other elements considered in designing a site for a development project.
 QA: LA 120
- 233*.** **Site Design for Planners and Developers**
 Fall. 2(0-8)
 P: UP 231A R: Social Science
 Soils, drainage, elevations, view, topography, utilities, wetlands, and other elements considered in designing a site for a development project.
 QA: LA 120

URBAN PLANNING

- 313*.** **Introduction to Data Analysis for Planners**
 Fall. 3(02-2)
 P: one CPS course
 Introduction to data analysis, data gathering, information presentation, and use of basic techniques of planning investigation. Application of related computer programs and software.
 QP: CPS 100 ORCPS 112ORCPS 115 QA: UP 341
- 314*.** **Methods for Investigation of Urban Systems**
 Spring. 3(02-2)
 P: UP 313, or department approved statistics course.
 Models, approaches and techniques for urban and regional problem analysis and plan formulation.
 QP: UP 341 QA: UP 342
- 323*.** **Land and Environmental Planning**
 Fall. 3(03-00)
 P: UP 201.
 Principles and techniques of environmental and land use planning. Environmentally sensitive management of growth and change at both urban and regional levels.
 QP: UP 200 QA: UP 363
- 334*.** **Real Estate Project Design**
 Spring. 4(02-04)
 P: LA 240 or UP 231 and UP 233
 Subdivision design, criteria, and standards, integrating activities, structures, and spaces on parcels of varying sizes and configurations.
 QP: LA 120 ANDLA 201 QA: UP 351
- 344*.** **Ethics and Politics in Planning**
 Spring. 3(3-0)
 P: UP 201
 Introduction to the planning process. Theories of decision-making in the local planning environment. Ethics and values of professional practice.
 QP: UP 200 QA: UP 363 AND UP 443
- 354*.** **Local Economic Planning**
 Spring. 3(3-0)
 P: UP 201
 The local economy and the economic component of comprehensive community planning. Taxation and services delivery. Relationship of fiscal health to physical and social development of a community.
 QP: UP 200 ORUP 400 QA: UP 462
- 400*.** **Special Topics in Urban Planning**
 Fall of odd-numbered years. 2 to 4 credits.
 P: Approval of Program
 QP: N/A QA: N/A
- 408*.** **International Development Planning**
 Spring. 3(3-0)
 P: UP 201 or UP 801 R: Juniors and above.
 Community planning concepts and practices in different countries. Tools and techniques in a variety of political, social, and cultural settings. Problems and responses to world issues. Case studies.
 QP: UP 200 ORUP 400ORUP 808
- 416*.** **Principles of Regional Planning**
 Fall. 3(3-0)
 P: GEO 113 R: Juniors and above
 Principles and theoretical issues of regional planning. Applied spatial analysis techniques. Policies and procedures.
 QP: GEO 213
- 417*.** **Information Systems and Program Evaluation in Urban Planning**
 Fall. 3(2-2)
 P: UP 314 or UP 814 or PLS 802 or PLS 803 R: Junior & Senior
 Systems and methods for surveillance, monitoring, management and evaluation of development projects, social programs and public policies.
 QP: UP 342 ORUP 815 QA: UP 410
- 427*.** **Land Reclamation Planning**
 Fall. 3(3-0)
 P: UP 201 or UP 801 R: Urban Planning, Landscape Architecture & Resource Development
 Issues, procedures and opportunities in mine land reclamation.
 QP: UP 200 ORUP 400ORUP 816
- 428*.** **Principles of Regional Planning**
 (0-) Interdepartmental with the Department(s) of Geography.
- 437*.** **Urban Design**
 Fall. 3(1-4)
 P: UP 334. R: Not open to freshmen.
 Urban design theory and application of physical design principles at various scales. Design of urban open space systems, building groupings, urban linkage, and site details in studio projects.
 QP: UP 351 QA: UP 352
- 457*.** **Economic Development**
 Fall. 3(2-2)
 P: UP 354 or UP 854 or EC 806C R: Juniors & Seniors
 Principles and techniques of local economic development planning. Impacts of global economy and federal and state economic development policies and programs on local economic development.
 QP: UP 462 ORUP 473 QA: UP 862
- 458*.** **Housing and Real Estate Development**
 Spring. 3(2-2)
 P: UP 354 or UP 854
 Real estate development process from idea inception to asset management. Finance, organization, design and implementation. Housing, social impacts, and public sector involvement.
 QP: UP 462 ORUP 473ORUP 433
- 465*.** **Planning Law**
 Fall. 3(3-0)
 P: UP 201 or UP 801
 Statutory and case law for local government planning and development regulation.
 QP: UP 200 ORUP 400ANDUP 335 QA: UP 472
- 468*.** **Advanced Planning Law**
 Spring. 3(3-0)
 P: UP 465 or UP 865
 Advanced topics in urban planning legislation and case law.
 QP: UP 472 ORUP 824
- 478*.** **Urban Transportation Planning**
 Spring. 3(3-0)
 P: (UP 201 and 314) or (UP 801 and UP 814) R: Junior or Senior
 Principles of decision-making in urban transportation planning. Demand and supply analysis, social and environmental impacts, implementation programs. Use of computer models.
 QP: (UP 200 ANDUP 342)OR(UP 808
- 480*.** **Internship in Urban Planning**
 Fall, Spring, Summer. 2 to 4 credits.
 P: Approval of Program
 QA: UP 489
- 485*.** **Senior Planning Practicum I**
 Fall. 3(0-6)
 R: Seniors Urban Planning
 Collection, analysis and synthesis of planning information for an established urban area and region. Formulation of comprehensive physical development policies and plans, and of implementation programs.
 QA: UP 461A
- 486*.** **Senior Planning Practicum II**
 Spring. 3(0-6)
 P: UP 485
 Continuation of UP 485.
 QP: UP 461A QA: UP 461B
- 490*.** **Independent Study in Urban Planning**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 8 credits.
 R: Not open to freshmen and sophomores. Approval of department.
 Faculty-supervised individual study in aspects of urban planning.
 QA: UP 490
- 499*.** **Independent Study in Urban Planning**
 Fall, Spring, Summer. 1 to 4 credits.
 May reenroll for a maximum of 8 credits.
 P: Approval.
 Research under the supervision of an Urban Planning faculty member.
 QA: UP 490
- 800*.** **Special Topics in Urban Planning**
 Fall, Spring, Summer. 2 to 4 credits.
 May reenroll for a maximum of 6 credits.
 R: Graduate Students
 Issues and current research in urban planning.
 QA: UP 897
- 801*.** **Introduction to Planning and Development**
 Fall. 3(03-0)
 R: Graduate Students
 Urban and regional planning and development. History of the planning profession. Current urban issues and planning approaches.
 QA: UP 808
- 813*.** **Quantitative Methods for Urban Planning**
 Fall. 3(2-2)
 R: graduate status
 Quantitative techniques for the analysis and classification of data for urban planners.
 QA: UP 427
- 814*.** **Applied Research Methods for Planning and Development**
 Spring. 3(2-2)
 P: UP 813 R: Graduate Students
 Techniques in urban and regional planning analysis. Forecasting models. Methods of urban project evaluation.
 QP: GEO 427 QA: UP 815
- 823*.** **Urban Land Management**
 Fall. 3(3-0)
 P: UP 801 or concurrently.
 Concepts, principles, tools, and techniques of urban and regional land management. Land use planning, public facilities, infrastructure location, and environmental sensitivity in land management.
 QP: UP 808 QA: UP 816

URBAN PLANNING

834*. *Urban Design and Project Development*
 Spring. 3(1-4)
 P: UP 801
 Design of development projects. Integration of structures, spaces, activities, and design elements in various urban settings.
 QP: UP 828 QA: UP 836

844*. *Decision Theory for Urban Planning and Development*
 Spring. 3(3-0)
 P: UP 801 or R: two graduate courses in the Master of Public Administration program. Planning and development process. Political decisionmaking in the planning context. Professional ethics and practice.
 QP: UP 808 QA: UP 816 UP 818

848*. *Urban Policy Analysis*
 Spring. 3(3-0)
 R: Graduate Students
 History of national urban policy. Stages in the public policy process and the development of new policies.
 QA: UP 803

854*. *Economics of Planning and Development*
 Spring. 3(3-0)
 P: UP 801
 The physical urban environment and local economic development.
 QP: UP 808 QA: UP 462 OR UP 473

865*. *Planning and Development Law*
 Fall. 3(3-0)
 P: UP 801
 Constitutional and statutory bases for planning and development. Effects of case law on design, administration and implementation of regulations. Experience in legal research.
 QP: UP 816 ORUP 808 QA: UP 824 UP 472

889*. *Master's Research*
 Fall, Spring, Summer. 3(0.-3)
 P: Approval of Program R: Graduate Students
 QA: UP 898

890*. *Independent Study*
 Fall, Spring, Summer. 2 to 4 credits.
 R: Approval of department.
 Faculty-supervised study in aspects of urban planning.
 QA: UP 800

893*. *Internship in Urban Planning*
 Fall, Spring, Summer. 2 to 4 credits.
 May reenroll for a maximum of 8 credits.
 P: Approval of department.
 Supervised individual experience in approved agencies and departments in the Lansing area.
 QA: UP 889

894A*. *Planning Practicum I*
 Fall. 2(0-4)
 R: Open only to graduate students in Urban Planning.
 Professional practice in the collection, analysis, and synthesis of information by students or student groups under faculty supervision. Developing solutions to specific urban problems.
 QA: UP 834

894B*. *Planning Practicum II*
 Spring. 2(0-4)
 P: UP 894A. R: Open only to graduate students in Urban Planning.
 Professional practices in the preparation of plans appropriate to the study area and subject matter examined in UP 894A. Designing statutory measures and administrative policies for implementation.
 QP: UP 834 QA: UP 835

899*. *Master's Thesis Research*
 Fall, Spring, Summer. 1 to 4 credits.
 P: Approval of program
 QA: UP 899

VETERINARY MEDICINE VM

511*. *Veterinary Perspectives I*
 Fall. 2(2-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Animal handling, restraint and physical examination.

512*. *Veterinary Integrative Problem Solving I*
 Fall. 1(1-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Integration of subject material from concurrent semester courses.

521*. *Veterinary Perspectives II*
 Spring. 2(2-0)
 P: Admission to the College of Veterinary Medicine R: College of Veterinary Medicine
 Veterinary Medicine none
 Veterinary medical ethics, history, client communication, and animal behavior.

522*. *Veterinary Integrative Problem Solving II*
 Spring. 3(2-2)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Integration of subject material from concurrent and previous semester courses.

532*. *Veterinary Integrative Problem Solving III*
 Fall. 3(2-3)
 P: Admission to the College of Veterinary Medicine R: College of Veterinary Medicine
 Veterinary Medicine none
 Integration of subject material from concurrent and previous semester courses.

533*. *Veterinary Epidemiology*
 Fall. 3(3-0)
 P: Admission to the College of Veterinary Medicine R: College of Veterinary Medicine
 Veterinary Medicine none
 Basic epidemiologic theory and study design; veterinary descriptive and inferential biostatistics; production veterinary medicine.

540*. *Metabolic Diseases*
 Fall. 1(1-0)
 P: Completion of Year 1 of the College of Veterinary Medicine. R: Year 2 College of Veterinary Medicine
 Veterinary Medicine none
 Biochemical and physiological basis of metabolic and endocrine diseases of animals including diagnosis, treatment and management.

541*. *Veterinary Perspectives III*
 Spring. 2(2-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Concepts and principles of veterinary practice management.

542*. *Veterinary Integrative Problem Solving IV*
 Spring. 3(2-3)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Integration of subject material from concurrent and previous courses.

543*. *Cardiovascular Diseases*
 Spring. 2(2-0)
 P: Admission to the College of Veterinary Medicine R: College of Veterinary Medicine
 Veterinary Medicine none
 Cardiovascular diseases of domestic animals with emphasis on pathogenesis and principles of diagnosis and treatment.

544*. *Veterinary Public Health*
 Spring. 2(2-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Veterinary environmental and occupational health; milk hygiene; meat hygiene; veterinary public health; control of zoonotic diseases.

545*. *Principles of Anesthesia and Surgery*
 Spring. 4(3-2)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Principles and techniques of administering anesthetic agents; fundamentals of surgery including principles of sterile technique, tissue handling, suture patterns, wound healing and postoperative care.

546*. *Musculoskeletal Diseases*
 Spring. 5(5-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Musculoskeletal diseases of domestic animals, with emphasis on pathogenesis and principles of diagnosis and treatment.

547*. *Respiratory Diseases*
 Spring. 2(2-0)
 P: Admission to the College of Veterinary Medicine. R: College of Veterinary Medicine
 Veterinary Medicine none
 Respiratory diseases of domestic animals, with emphasis on pathogenesis and principles of diagnosis and treatment.

548*. *Principles of Radiology*
 Fall. 1(1-0)
 P: Completion of Year 1 of the College of Veterinary Medicine. R: Year 2 College of Veterinary Medicine
 Veterinary Medicine none
 Fundamentals of veterinary radiology. Normal radiographic anatomy. Principles of radiographic interpretation. Radiation safety.

549*. *Veterinary Epidemiology*
 Fall. 3(3-0)
 P: Completion of Year 1 of the College of Veterinary Medicine. R: Year 2 College of Veterinary Medicine
 Veterinary Medicine none
 Meaning and relevancy of biostatistics in veterinary medicine. Descriptive and inferential statistics. Study design and critical literature review. Disease determinants, ecology, distribution and populations at risk analytic-clinical investigation.