805. Advanced Directing Practices
Winter, Summer. 4(4-0) May reenroll for a maximum of 12 credits. Approval of department.
Directing theory and practice in the 20th century. Study and laboratory experimentation.

809. Studies in Theatre History
Fall, Winter, Spring, Summer. 3(3-0) May reenroll for a maximum of 18 credits. Approval of department.
Selected periods in Western and Asian Theatre History emphasizing the theatre as a cultural expression and a performing art.

341. Urban Planning Methods of Analysis
Fall. 3(3-0) Juniors in urban planning or approval of school.
Types of urban planning variables and methods of application to planning studies. Study design for basic planning investigations, and technique of investigation.

342. Research Methods in Planning
Winter. 4(4-0) U P 341.
Methods for investigation and analysis of urban phenomena; models, data and techniques used in mathematical, graphical and logical analysis.

351. Spatial Design
Winter, Spring. 4(2-4) U P 200, U P 243 or BCM 215.
Urban community functional physical elements at various scales. Laboratory work on planning problems related to human activity flow, terrain and structures, including land subdivision design.

352. Urban Design Problems
Spring. 4(0-8) U P 351.
Application of the physical design processes from the scale of individual element groupings to complete community units in a two and three dimensional context.

363. Comprehensive Planning Process
Spring. 3(3-0) U P 233.
Theory and application of coordinated planning for urban development, including policies and development plan formulation, programming, evaluation, review and revision of policies and plans.

400. Urban Development and Planning
Fall. 3(3-0) Credit may not be earned in U P 233 and U P 400. Juniors. Not open to majors in Urban Planning.

410. Computer Applications in Planning and Landscape Architecture
Spring. 3(2-2) CPS 115 or CPS 120, approval of school.
Computers in planning and landscape microcomputers and interactive terminals. Application of various programs and software: simulation models, scheduling techniques, project assessment and management, spreadsheet, data base management, word processing.

431. International Housing Developments
Fall. 3(3-0)
Importance and types of governmental housing programs in reference to urban design, financial policies and land issues. Projects and programs selected primarily from undeveloped countries.

432. Perspectives on Housing Policies in Selected Industrialized Countries
Winter. 4(4-0) Juniors. Interdepartmental with the Department of Human Environment and Design.
Urban housing policies in selected countries, such as Great Britain, Italy, Poland, Russia, Scandinavia, United States, and West Germany.

433. Human Shelter
Spring. 3(3-0)
Interdisciplinary approach to shelter: role of shelter in the community, housing as a cultural, economic, and institutional force; future developments and needs.

442. Foundations of Urban Policy
(UMS 432.) Fall. 4(4-0) Juniors.
Historical and political foundations of contemporary urban policy, stressing federal policies from public housing to general revenue sharing. Role of power and influence in policymaking process.

443. Urban Policy Analysis
(UMS 433.) Winter. 4(4-0) U P 342 or approval of school.
The nature of contemporary American urban policy. The institutions and processes that affect urban policy. Theory and methodology of public policy analysis relating to selected urban issues.

450. Social Planning
Winter. 3(2-2) U P 363, U P 400 or graduate students.
Definition of Social Planning. Techniques for identifying problems of resource access, and survey of attributes and skills necessary to improve delivery and participation. Field work with neighborhood organizations and planning agencies. Field trips required.

460. Planning Practice
Spring. 3(3-0) Senior urban planning major or U P 400.
Administration of urban planning in relationship to government, operations, other professions and the public. Emphasis on staff functions and responsibilities, consultant practice, and professional ethics.

461A. Comprehensive Planning
Fall. 4(0-8) U P 363.
Collection, analysis and synthesis of planning information for an established urban area and region. Formulation of comprehensive physical development policies and plans, and implementation programs.

461B. Comprehensive Planning
Winter. 4(0-8) U P 401A.
Continuation of U P 461A.

461C. Comprehensive Planning
Spring. 4(0-8) U P 401B, U P 471.
Continuation of U P 461B. Approved through Winter 1985.

462. Fiscal Planning
(362.) Winter. 3(3-0) U P 363 or U P 400 or approval of school.
Analysis of costs associated with plan implementation, redevelopment, and preservation. Relationship between the budgeting process and the fiscal implications of planning.

472. Urban Development Regulation
Winter. 3(3-0) Seniors.
Public and private regulations basic to regulations influencing urban development: state enabling legislation and regulations, local ordinances, especially for zoning and subdivision regulations.

473. Urban Development Programs
Spring. 4(2-4) U P 461B, U P 472.
Current governmental programs affecting urban development and renewal, grants process, proposal preparation. Application of appropriate programs to laboratory community as parts of comprehensive planning implementation strategy.
450. Historic Preservation
Winter, 3(3-0) Seniors, approval of department, Interdepartmental with and administered by History of Art.
History and philosophy of historic preservation; the new attitude toward preservation; historic districts and neighborhoods—adaptable use, documentation and tools for preservation; a project based on field research.

489. Internship in Urban Planning
Fall, Winter, Spring, Summer, 2(0-8) or 3(0-12) or 4(0-16) May reenroll for a maximum of 8 credits. Senior majors: approval of school.
Individual experience in approved agencies and departments in the Lansing area.

490. Independent Studies in Urban Planning
Fall, Winter, Spring, Summer. 2 to 6 credits. May reenroll for a maximum of 6 credits. Senior majors: approval of school.

800. Special Problems
Fall, Winter, Spring, Summer. 2 to 6 credits. May reenroll for a maximum of 6 credits. Approval of school.

Winter, 3(3-0) Approval of school.
The contemporary role of federal urban policy, and relationships between selected key areas of urban policy and urban planning. Approved through Summer 1986.

808. Background of Urban Development Planning
Fall, 3(3-0)
American urban development from 1620 to the present, including shifts in technology and social forces that influenced development patterns. Problems faced by the professional planner are emphasized.

811. Advanced Quantitative Methods in Geography and Planning
Spring, 4(4-0) Approval of department, GEO 427. Interdepartmental with and administered by the Department of Geography.
Statistical and mathematical approaches to spatial distributions and areal data.

814. Research Methods in Urban and Regional Analysis
Winter, 3(3-0) U P 427 or approval of school. Interdepartmental with the Department of Geography.
Basic quantitative techniques used in urban and regional analysis and planning, including statistical, linear, and network methods. Introduction to computer use.

815. Application of Research Methods in Planning and Analysis
Spring, 3(3-0) U P 814. Interdepartmental with the Department of Geography.
Applied techniques used in planning research. Analysis and forecasting of urban population, economic activity, and land use. Analysis of transportation and other community facilities.

816. The Planning Process
Fall, 3(3-0)
Basic research and survey methods, and procedures used by the professional planner in developing a comprehensive plan.

818. Planning Process Theory
Winter, 3(3-0) Approval of school.
Planning as a decision-making process, methods for defining goals in public and private planning programs, role of planning in public policy, formulation, planning for positive human-environment relationships.

819. Theories of Urban Forms and Structure
Spring, 3(3-0) Approval of school. Interdepartmental with the Department of Geography.
Idealized urban forms, theories and models in urban form as it relates to function and location of urban activities.

824. Legal Bases for Planning
Winter, 3(3-0) U P 473; approval of school.
Analysis of legislation pertinent to planning, emphasis upon legislation for city and regional planning bodies and creation of special authorities with general planning responsibilities.

828. Planning Presentation Techniques
Fall, 3(1-4) Approval of school.
Communication skills utilized by planners to present policy proposals to governmental decision makers and citizens. Speaking, writing, and small group leadership is integrated with essential planning graphic skills.

830. Development Project Evaluation
Spring, 3(2-2) Approval of school.
Planning evaluation methods and techniques employed in the review of urban development projects and proposals, sites plans, and public policies.

834. Planning Practicum I: Field Studies
Fall, 3(0-6) Completion of the first year MUP Core Program or approval of school.
Field experience in the collection, analysis, and synthesis of information by individual students or student teams, to develop solutions to specific urban problems.

835. Planning Practicum II: Plan Making and Implementation
Winter, 3(0-6) U P 834
Based on study and research done in U P 834, the preparation of plans appropriate to the study area and subject. The design of statutory measures and administrative policies for implementation.

836. Introduction to Design
Winter, 3(0-6) U P 838 or approval of school.
Studio course emphasizing the role of planning in shaping the process of urban growth and development, and the role of physical form and structure in influencing cultural patterns.

840. Administration and Professional Practice
Winter of even-numbered years, 3(3-0)
Majors or approval of school.
Expanding scope of urban planning and implications for administration; organizations for administration; relationships to governmental operations, to other professions, to public. Staff functions and responsibilities; administrative instruments; practice of the consultant; professional ethics.

842. An International Comparative Study of Urban Planning
Winter of odd-numbered years, 3(3-0)
Urban growth patterns; types, roles and design theory of new cities; techniques and organization for urban growth; selection of subject areas will be made according to the class composition.

850. Housing Program Planning
Spring of even-numbered years, 4(3-4)
Approval of school.
Regulation, stimulation, salvage, and replacement of housing through public policy and administrative procedures. Increasing role of private initiative as partner to public action through conservation, rehabilitation, and redevelopment practices. Evaluation of trends and needs: analysis of case studies.

854. Urban Transportation Planning
Spring of odd-numbered years, 4(2-4)
Approval of school.
Examination of travel, land use, and transportation networks. Transportation planning data, processes, and plans, and their implication on theory and practice of metropolitan planning. Field work in current transportation issues.

855. Urban Land Policy and Regulation
Spring of odd-numbered years, 4(2-4)
Approval of school.
Public land use policy and legislation, and implementing governmental actions. Land use controls exercised by several levels of government. Field work in development and application of land use control instruments.

862. Development Planning and Administration
Spring of odd-numbered years, 4(2-4)
Approval of school.
Measurement of urban obsolescence and deterioration with accompanying analysis of symptoms and causes for a selected community. Comprehensive plan for urban renewal and development objectives will be developed and one or more project areas will be studied and processed in accordance with most effective techniques and administrative procedures. Emphasis to be placed on the objective of unified, revitalized community development.

889. Internship in Urban Planning
Fall, Winter, Spring, Summer, 2(0-8) or 3(0-12) or 4(0-16) May reenroll for a maximum of 8 credits. Senior majors: approval of school.
Individual experience in approved agencies and departments in the Lansing area.

891. Special Topics in Urban Planning
Fall, Winter, Spring. 2 to 4 credits. May reenroll for a maximum of 6 credits if different topic is taken.
Issues pertaining to urban planning as they arise out of current research, planning practice or the interplay of national issues and urban problems.

896. Master's Research
Fall, Winter, Spring, Summer, 2 or 3 credits. Approval of school.
The research component of the Plan B option for the MUP degree.

899. Master's Thesis Research
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 15 credits. Approval of school.

Landscape Architecture
100. Environmental Perception
Fall, Winter, 3(3-0)
Environmental design concepts, orientation to landscape architecture, objectives and aspects of public and private professional practice, and scope and types of landscape development projects.
110. Fundamentals of Design  
Fall. 4(2-4)  
Analysis and application of elements and principles of design in two and three dimensional expressions to abstract and spatial design compositions for environmental requirements.

120. Graphic Communication  
Fall. 4(2-4)  
Technical skills for graphic communication, freehand, mechanical drafting and lettering, sketching and perspective drawing; use of graphic symbols, diagrams, matrices and charts; rendering media, techniques, presentation and reproduction methods.

201. Site Planning  
Fall. 3(0-3)  
Elements, principles and concepts for site development, including use area organization, orientation and siting of buildings, circulation and parking systems, spatial definitions, and design considerations.

230. Landscape Design  
Winter. 4(2-4) Provisional majors; or approval of school.  
Elements and principles of site grading, relief visualization, contour interpretation, land form utilization, surface drainage, slope calculations, and earthwork quality determinations.

233. Site Construction  
(L A 333.) Winter. 4(2-4) Provisional majors.  
Materials and methods for construction of landscape developments, including details, layouts, construction drawings, specifications and cost estimating procedures.

240. Landscape Design Methods  
Winter. 3(2-2) Provisional majors; or approval of school.  
Considerations and techniques of landscape design, including natural, cultural and perceptual inventories, site and program analyses, development of design concepts, with verbal and graphic expressions. Field trips required.

243. Basic Site Design  
(441.) Spring. 4(2-4) Provisional majors; or approval of school.  
Applications of site planning theory and landscape design methods to representative site development projects involving buildings, use areas, land, water and plant forms, with verbal and graphic expressions. Field trips required.

321. Advanced Graphic Communication  
Winter. 4(1-6) Junior majors.  
Development of proficiency in landscape delineation and rendering techniques, including specialized media and forms for visual presentations of design concepts, analyses and perceptions.

322. Site Engineering  
(432.) Fall. 3(2-2) Majors.  
Principles and procedures for design of site development systems, horizontal and vertical road alignments, storm and sanitary sewers, site utilities and computer applications for preparation of site construction drawings.

342. Recreation Site Design  
Fall. 4(2-4) L. A. 240. Landscape Architecture majors or approval of school.  
Ecological and cultural considerations, resource characteristics, activity requirements, recreation site design standards, with applications of design process to representative recreation site developments, parks and special use areas.

346. Housing Site Design  
Winter. 4(2-4) Landscape Architecture or Urban Planning majors; or approval of school.  
Application of site planning principles and landscape design methods to representative site development projects, with emphasis on housing requirements and opportunities.

348. Community Projects Design  
Spring. 4(2-4) L. A. 346.  
Application of site planning principles and landscape design methods to comprehensive site development projects, with emphasis on public and institutional requirements and opportunities.

350. Planting Design Theory  
(LA 250.) Fall. 4(2-4) HRT 212. Junior majors; or approval of school.  
Principles of and procedures for arrangement of plant compositions, emphasizing the perceptual characteristics of plants by means of models, sketches and plans, and potential applications to landscape developments. Field trips required.

353. Planting Plans  
Spring. 3(2-2) Junior majors.  
Principles and procedures for selection and arrangement of plant materials for specific uses, including climate modification, spatial definition, circulation control, and soil and water conservation, as expressed by planting plans and specifications.

370. History of Environmental Development  
Spring. 3(2-2)  
Significant natural conditions and cultural events which have influenced attempts to organize and design the physical environment, as expressed in historic landscape development styles and movements.

390. Landscape Architecture Field Studies  
Fall, Winter, Spring. 2 to 4 credits. May reenroll for a maximum of 8 credits. Approval of school.  
Field trips to contemporary and historical sites and regional zones within or outside the United States. Prior to and post study required.

401. Environmental Land Planning  
Winter. 3(3-0)  
Principles and methods of ecologically based land planning, stressing management and natural resources in relationship to growth and development; includes current environmental planning and development at local and state levels.

401A. Environmental Planning Application  
Winter. 1(0-2) L. A. 401 concurrently.  
Sample design exercises applying environmental land planning theory from L. A. 401 to selected landscapes.

403. Urban Design Theory  
Spring. 3(3-0)  
Concepts and procedures for the organization, design and development of public and private urban forms and spaces, including survey of urban elements, cultural, ecological and aesthetic considerations, and interdisciplinary collaboration.

403A. Urban Design Applications  
Spring. 1(0-2) L. A. 403 concurrently.  
Sample design exercises applying urban design theory from L. A. 403 to select urban landscapes.

423. Professional Graphics  
Spring. 4(1-6) L A. 321.  
Applications of advanced sketching, perspective and rendering techniques for typical professional presentations, including projects, reproductions, photography and multi-media audio-visual communications.

437. Design Implementation  
Winter. 4(1-6) Senior majors, L A 480 concurrently; CPS 115 or CPS 120.  
Preparation of a complete package of contract documents including the use of computer technology for a representative site development project including typical construction drawings, specifications and cost estimates.

471. History of Landscape Architecture  
Winter. 2(3-2)  
Environmental design concepts and projects from 1850 to the present time, with emphasis on the development of the profession and practice of landscape architecture in the United States.

480. Professional Practice  
Winter. 4(3-2) Senior majors, L. A. 437 concurrently.  
Principles and procedures of professional office practice, including ethics, client relations, registration, inter-professional collaboration project management and marketing of professional services.

483. Landscape Architecture Seminar  
Spring. 3(2-2) Senior majors.  
Research presentation and discussion of significant current issues, trends, events and opportunities relating to contemporary theories and practices of landscape architecture.

489. Environmental Design Concepts and Projects  
Fall, Winter, Spring. 2(0-8) or 3(0-12) or 4(0-16) May reenroll for a maximum of 12 credits. Junior, approval of school.  
Supervised experience in approved public agencies and professional offices. Bi-weekly conferences.

490. Special Problems  
Fall, Winter, Spring. 2 to 5 credits. May reenroll for a maximum of 12 credits. Approval of school.  
Investigation, for advanced undergraduate students in landscape architecture, developed from special interest areas.

499. Landscape Architecture Design Thesis  
Fall. 4(1-6) Senior majors; or approval of school.  
Demonstration of analytical, creative and technical competencies in the development of methods and/or concepts leading to design solutions for contemporary landscape architecture problems for public service projects.

VETERINARY MEDICINE  

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