Courses

## **URBAN PLANNING AND** LANDSCAPE ARCHITECTURE

## College of Social Science

## **Urban Planning**

U P

#### Design of Cities 203.

(103.) Fall. 3(3-0)

Examination and evaluation of the urban environment, with emphasis on the visual characteristics and their influences upon human perceptions and activities. Contemporary design considerations.

#### 231. Evolution of Urban Communities (S)

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

Forces which promoted urban development and shaped urban areas throughout human history. Relationships of these continuing influences to current urban concerns. Historical bases of cultural factors in contemporary urbanism.

#### The Role of Planning in Urban 233. Development

Winter. 3(3-0)

Contemporary formal and informal roles of urban planners in various levels of government and private institutions. Influence exerted upon urban and regional development by governmental and private organizations.

#### **24**3. Planning Communication Fall. 4(2-4)

Development and presentation of planning materials emphasizing the coordination of speaking, writing, and graphic skills.

#### 311. Site Planning and Construction

Winter, Spring. 5(3-6) Building Con-

Elementary problems emphasizing physical development of specific sites involving population densities, architectural forms, grading, public utilities, traffic and parking, and functioning street patterns.

#### 335. Power, Policy, and the Metropolis

(UMS 335.) Spring. 4(4-0) Juniors.

Critical issues in power and decision making at a local level. Issues in central cities, suburbs, and metropolitan regions. Stresses the interac-tion between policy and social and economic

#### 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

Spring. 4(2-4) UP 233, UP 243.

Urban community functional physical elements at various scales. Laboratory work on planning problems related to human activity flow, terrain and structures, including land subdivision de-

#### 352. Urban Design Problems

Winter. 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.

#### 362. Fiscal Planning

Winter of even-numbered years. 3(3-0) U P 233 or U P 400.

Analysis of costs associated with plan implementation, redevelopment, and preserva-tion. Relationship between the bugeting process and the fiscal implications of planning.

#### Comprehensive Planning Process 363. Spring, 3(3-0) UP 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

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

Planning as a governmental function in a democratic society. Powers and responsibilities for guiding urban growth and change. Processes of planning and its implementation. Development regulations and public facilities planning.

#### 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 underdeveloped countries.

#### 432. Perspectives on Housing Policies in Selected Industrialized Countries

(RES 465.) 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.

#### **Human Shelter** 433.

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

## Urban Policy Analysis

(UMS 430, UMS 433.) Winter. 4(4-0) UP 342 or approval of school.

The nature of contemporary American urban public policy. The institutions and processes that affect urban policy. Theory and methodology of public policy analysis relating to select urban issues.

#### 450. Social Planning

Winter. 3(2-2) UP 363, UP 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

Fall. 3(3-0) Senior urban planning major or UP 400.

Administration of urban planning in relationship to governmental operations, other professions and the public. Emphasis on staff func-tions 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 461A.

Continuation of UP 461A.

## 461C. Comprehensive Planning

Spring. 4(0-8) U P 461B, U P 471.

Continuation of UP 461B.

## Ecological Basis for Planning Fall. 3(3-0) Seniors.

Ecological principles, relationships and interaction between natural and man-made elements of the environment; critical review of environmental planning projects at local, state and national

#### 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. 3(2-2) U P 472.

Current federal and state programs which affect local development and renewal. The grants process, including requirements, proposal preparation.

#### 480. Historic Preservation

Winter. 3(3-0) Seniors, approval of department. Interdepartmental with and administered by the Department of Art.

History and philosophy of historic preservation; the new attitude toward preservation-historic districts and neighborhoods-adaptive use, documentation and tools for preservation; a project based on field research.

## 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

Individual experience in approved agencies and departments in the Lansing area.

### Independent Studies in Urban **490**.

Fall, Winter, Spring, Summer. 2 credits. May reenroll for a maximum of 4 credits. Senior majors, approval of school.

#### Special Problems 800.

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

## Background of Urban Development Plannning 808. 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.

#### Research Methods in Urban 814. Planning: Basic Quantitative Techniques

Winter. 3(3-0) STT 201 or STT 421 or approval of school.

Basic quantitative techniques used in planning, including statistics, linear methods, and not-work methods. Introduction to use of the computer. Intended for students with limited background in mathematics.

## Research Methods in Urban 815. Planning: Applications to Planning Problems

Spring. 3(3-0) U P 814.

Applied techniques used in planning research. Analysis and forecasting of urban population, economic activity, and land use. Analysis of transportation and other community facilities.

#### The Planning Process 816. Fall. 3(3-0)

Basic research and survey methods, and procedures used by the professional planner in developing a comprehensive plan.

#### Planning Process Theory 818.

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 humanenvironment relationships.

## Planning Theory: Theories of Urban Forms and Structure 819.

Spring. 3(3-0) Approval of school.

Idealized urban forms, theories and models in urban form as it relates to function and location of urban activities.

#### Legal Bases for Planning 824.

Winter, 3(3-0) UP 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.

#### Planning Presentation 828.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.

#### Development Project Evaluation 830. Spring. 3(2-2) Approval of school.

Planning evaluation methods and processes employed in the review of urban development proposals and projects, site 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 groups, to develop solutions to specific urban problems.

#### Planning Practicum II: Plan 835. Making and Implementation

Winter, 3(0-6) U P 834.

Based on study and research done in UP 834, the preparation of plans appropriate to the study area and subject. The design of statutory measures and administrative policies for implemen-

#### Introduction to Design 836.

Winter, 3(0-6) UP 828 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.

## 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; relationship to governmental operations, to other professions, to public. Staff functions and responsibilities; administrative instruments; practice of the consultant; professional ethics.

#### An International Comparative 842. 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.

#### Housing Program Planning 850.

Spring of even-numbered years. 5(2-6) Approval of school.

Regulation, stimulation, salvage, and replacement of housing through public policy and administrative procedures. Increasing role of priwate 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 even-numbered years. 5(2-6) 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.

#### Urban Land Policy and 858. Regulation

Spring of odd-numbered years. 5(2-6) 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.

#### Development Planning and 862 Administration

Spring of odd-numbered years. 5(2-6) 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.

#### Internship in Urban Planning 889.

Fall, Winter, Spring, Summer. 2(0-8) or 3(0-12) or 4(0-16) May reenroll for a maximum of 8 credits. Graduate students in Urban Planning; approval of school.

Individual experience in approved agencies and departments in the Lansing area.

#### Special Topics in Urban 897. Planning

Fall. 2(2-0) 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.

#### Master's Research 898.

Fall, Winter, Spring, Summer. 2 or 3 credits. Approval of school.

The research component of the Plan B option for the MUP degree.

## Master's Thesis Research

Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 15 credits. Approval of school.

## Landscape Architecture

L A

## **Environmental Perception** Fall, 3(3-0)

Environmental design concepts, orientation to landscape architecture, including environmental inventories, objectives and aspects of public and private professional practice, and scope and types of landscape development projects.

#### Fundamentals of Design 110.

Fall, Spring. 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.

## Graphic Communication Fall. 4(1-6)

Basic technical skills for graphic communica-tions, mechanical and free-hand drafting and lettering, sketching, perspective drawings, use of graphic symbols, dimensioning, rendering media and techniques, and reproduction methods.

#### 201.Site Planning

Winter. 3(3-0)

Elements, principles and concepts for site development, including use area organization, orientation and siting of buildings, circulation and parking systems, spatial definitions, and detail design considerations.

Courses

## 230. Landform Design

Spring. 4(2-4) Provisional majors.

Elements and principles of site grading, relief visualization, contour interpretation, land form units, surface drainage, slope calculations, and earthwork quality determinations.

## 240. Landscape Design Methods

Winter. 4(1-6) Provisional majors; LA

120.

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.

## 250. Planting Design

Spring. 4(2-4) Provisional majors.

Principles of and procedures for arrangement of plant compositions, emphasizing the perceptual chartacteristics of plants by means of models, sketches and plans, and potential applications to landscape developments. Field trips required.

## 260. Architectural Design

Winter, 4(2-4) Provisional majors.

Elements and principles of architectural design including aesthetic qualities of buildings, physical and visual properties of materials, structural elements and systems; and siting of buildings.

## 321. Advanced Graphic Communication

Spring. 4(1-6) Junior majors.

Development of proficiency in landscape delineation and rendering techniques, including specialized media and formats for visual presentations of design concepts, analyses and perceptions.

## 332. 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.

## 333. Site Construction

Fall. 4(2-4) Junior majors.

Materials and methods for construction of landscape developments, including details, layouts, construction drawings, specifications and cost estimating procedures.

## 341. Basic Site Design

(241.) Fall. 4(1-6) Junior majors.

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.

## 346. Project Site Design

Winter, 4(1-6) L A 341.

Application of site planning principles and landscape design methods to representative site development projects, with emphasis on housing and recreational requirements and opportunities.

## 348. Public Site Design

Spring. 4(1-6) 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.

## 353. Planting Plans

Winter. 4(2-4) 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

Fall. 3(2-2)

Significant natural conditions and cultural events which have influenced man's attempts to organize and design his 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 site and regional zones within or outside the United States. Prior and post study required.

## 401. Landscape Management Winter. 3(3-0)

Concepts and policies affecting natural resource conservation, selection and location of significant human use areas, landscape development considerations and their environmental implications.

## 403. Urban Design Theory

Winter. 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.

## 423. Professional Graphics

Spring. 4(1-6) LA 321.

Applications of advanced sketching, perspective and rendering techniques for typical professional presentations, including prints, reproductions, photography and multi-media audiovisual communications.

## 437. Design Implementation

Winter. 4(1-6) Senior majors, L A 480 concurrently.

Preparation of a complete package of contract documents for a representative site development project, including typical construction drawings, specifications and cost estimates.

## 442. Comprehensive Landscape Design

Spring. 6(1-10) LA senior major.

Applications of regional and urban design theory and landscape design methods to representative large scale regional and urban landscape development projects.

## 471. History of Landscape Architecture

Spring. 3(2-2)

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. 3(2-2) Senior majors, LA 437 concurrently.

Principles and procedures of professional landscape architectural practice, including ethics, client relations, registration, inter-professional collaboration and organization of operations for design implementation. Field trips required.

## 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. Landscape Architecture Internship

Fall, Winter, Spring, Summer. 2(0-8) or 3(0-12) or 4(0-16) May reenroll for a maximum of 8 credits. Juniors, approval of school.

Supervised experience in approved public agencies and professional offices. Bi-weekly conferences.

## 490. Special Problems

Fall, Winter, Spring, Summer. 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(0-8) L A Senior major.

Demonstration of analytical, creative and technical competencies in the development of methods and/or concepts leading to design solutions for contemporary landscape architecture problems.

# VETERINARY MEDICINE V M (COLLEGE OF)

### 511. Introduction to Veterinary Medicine I

(V M 500A.) Fall. 2(2-0) First-term Veterinary Medicine students.

Species and breed identification, predisposition for specific diseases, basic care and feeding, restraint and handling of small domestic animals, unusual pets, and laboratory animals.

## 517. Perspectives in Veterinary Medicine

Fall. 1(1-0) First-term Veterinary Medicine students.

Ethical principles, historical background and organization of the veterinary profession.

## 521. Introduction to Veterinary Medicine II

(500B.) Spring. 4(3-4) Third-term Veterinary Medicine students.

Restraint, physical examination and diagnostic procedures in food animals and horses. Fundamentals of equine conformation, gaits, shoeing and routine medical care.