801B. *Dramatic Theory and Criticism: Hobbes to Meredith*

Winter. 4(4-0) Approval of department.

A survey from Thomas Hobbes to George Meredith.

801C. *Dramatic Theory and Criticism: Contemporary*

Spring. 4(4-0) 801A, 801B, or approval of department.

Contemporary theory and criticism including the application of critical theories and principles to the evaluation and analysis of dramatic literature.

803. *Practicum in Theatre Arts*

A. Acting

Fall, Winter, Spring, Summer. 3(0-10) May re-enroll for a maximum of 18 credits. Approval of department.

Graduate practicum in acting.

B. Architecture and Design

Spring. 4(2-2) May re-enroll for a maximum of 8 credits.

Graduate practicum in costume, scenery, lighting and architectural design.

C. Directing

Winter, Summer. 4(2-2) May re-enroll for a maximum of 12 credits. Approval of department.

Graduate practicum in directing.

805. *Studies in Comparative Theatre and Drama*

Fall, Winter, Spring, Summer. 3(3-0) May re-enroll for a maximum of 12 credits. Approval of department. Interdepartmental and jointly administered with the Department of English.

Comparative study of selected playwrights, movements, trends and developments in world drama from the beginnings to the present day.

810. *Introduction to Research Methods*

Fall, Summer. 4(3-0)

Nature of graduate study and of research in the several areas of speech.

899. *Research*

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

921. *Readings in Theatre*

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 12 credits. Approval of department.

990. *Special Problems — Theatre*

Fall, Winter, Spring, Summer. 1 to 6 credits.

Special problems in theatre research and experimentation with emphasis on the relation of theatre to other disciplines.

999. *Research*

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

UNIVERSITY COLLEGE U C

299. *Integrative Studies*

Fall, Winter, Spring. 3 to 5 credits. May re-enroll for a maximum of 12 credits when different topics are given.

Integrative studies in the humanities, social sciences, and natural sciences. Topics vary from term to term.

399. *Selected Topics*

Fall, Winter, Spring. 3 to 5 credits. May re-enroll for a maximum of 12 credits when different topics are given. Juniors.

Interdisciplinary investigations of topics in the major areas of human knowledge: humanities, social sciences, and natural sciences.

499. *Great Issues*

Fall, Winter, Spring, Summer. 4(3-0) May re-enroll for a maximum of 12 credits if different topic is taken. Seniors.

Analysis and discussion of selected problems challenging the modern world. Those chosen for discussion are profound and persistent issues which cross conventional academic disciplines. A faculty team selected from the various colleges of the University gives the lectures and supervises discussions, readings and reports.

URBAN PLANNING AND LANDSCAPE ARCHITECTURE

College of Social Science

Urban Planning U P

103. *Design of Cities*

Spring. 3(3-0)

Definition of planning; objectives and accomplishments of the urban designer; basic design principles of space, scale and circulation applied to the physical pattern of cities.

231. *Evolution of Urban Communities*

Fall, Spring. 3(3-0)

Basis for particular overall forms in urban settlements. Interrelationships of various cultural influences and theoretical urban concepts to contemporary communities in the United States and foreign areas.

232. *Contemporary Urban Development*

Winter. 3(3-0) 231 recommended.

Current patterns, trends and problems indicated in the development and renewal of established urban centers and new urban growth.

233. *The Role of Planning in Urban Development*

Spring. 3(3-0) 231 recommended.

Influence upon urban and regional development exerted by various types of governmental and private organizations.

243. *Planning Communication*

Fall, Spring. 3(2-2)

Development of planning materials using basic skills of graphic presentation, writing, and oral reporting. Methods of graphic analysis and reproduction will be emphasized.

311. *Site Planning and Construction I*

Winter. 5(3-6)

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

342. *Research Methods in Planning*

Winter. 5(5-0) STT 201.

Methods for investigation and analysis of urban phenomena; models, data and techniques used in mathematical, graphical and logical analysis.

351. *Spatial Design*

Fall. 5(3-4) 233, 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 design.

352. *Urban Design Problems*

Winter. 5(0-9) 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) 233, 342.

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, Spring. 3(3-0) Credit may not be earned in U P 232 or 233 and 400. Juniors. Not open to majors in Urban Planning.

Planning concepts and powers used to guide contemporary urban growth and alleviate common problems. Major topics will be the planning commission, comprehensive plan, zoning, land development, parks, school location.

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.

433. *Man and His Shelter*

Fall, Spring. 3(3-0) Interdepartmental with the Human Environment and Design Department.

Interdisciplinary approach to man and his shelter; role of shelter in the community, housing as a cultural, economic, and institutional force; future developments and needs.

461A. *Comprehensive Planning*

Fall. 4(0-8) 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) 461A.

Continuation of 461A.

461C. *Comprehensive Planning*

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

Continuation of 461B.

471. *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 levels.

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(3-0) 472.

Governmental programs influencing urban development, including direct development projects, technical and financing assistance, administrative regulations by federal and state agencies. National, state and regional programs.

490. Independent Studies in Urban Planning
Fall, Winter, Spring. 2(2-0) Senior majors, approval of department.

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

801. City and Regional Design
Practical application of city and regional planning theory and principles to specific and representative case studies. Work will include field research, design analysis, and presentation of workable recommendations as to appropriate objections and actions for solutions.

A. Urban Design.

Winter. 6 credits. Approval of school.

Design projects for functions relating to selected community activities. Commercial, industrial, residential, institutional, and transportation land uses will be utilized for design study in appropriate dimensions.

B. Metropolitan Regions.

Spring. 6 credits. 471 and approval of school.

Selected problems of metropolitan functions of present and future significance. Intra and inter-regional relationships of primary functional importance; such as, open spaces, economic development, community patterns, transportation, and associated land uses.

C. Urban Renewal and Development.

Spring. 6 credits. 821 or 433 and 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.

802. Urban Planning Methods
Fall. 4(4-0)

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

803. Spatial Design
Fall. 4(0-6)

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 man's cultural patterns.

810. Planning Theory
A. Theory of the Planning Process

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

Influential schools of thought, planning as a decision-making process, methods for defining goals in public and private programs, and the role of planning in formulating public policies.

B. Theories of Urban Forms and Structure

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.

812. Application of the Social Sciences in Urban Planning
Spring. 3(3-0) Non-majors: approval of school.

Evaluation of social science concepts, methods, and knowledge on the basis of their implications and applications in community planning and development. Participation by faculty and graduate students from appropriate Social Sciences and Urban Planning.

813. An International Comparative Study of Urban Planning
Winter, Spring. 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.

820. Research Methods
Fall. 3(3-0) 342 or 400 and approval of school.

Examination of research methods useful in application to components of urbanization as population, land use, housing, business facilities, industrial development, traffic, recreation, and critical aspects of community structure.

821. Seminar in Housing and Urban Renewal
Winter. 3(3-0) 433.

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.

822. Urban Circulation
Fall. 3(3-0) 342 or 400 and approval of school.

Functional requirements and interrelationships of all means for the movement of people and goods in urban areas as they affect the physical pattern of the community.

830. Legal Bases for Planning
Winter. 3(3-0) 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.

831. Zoning and Land Subdivision Regulation
Fall. 3(3-0) 830 or approval of school.

Ordinance structure and planning theory as expressed in texts of ordinances. Selected court cases.

832. Administration and Professional Practice
Spring. 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.

899. Research
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 15 credits.

Individual student research on a topic of critical importance to urban planning that will demonstrate student's competence and make a contribution to the knowledge of the field.

Landscape Architecture L A

101. Introduction to Landscape Architecture
Fall, Spring. 3(2-2)

Orientation to the profession of landscape architecture emphasizing materials and methods used in the design of outdoor space for human use and enjoyment. Laboratory projects concentrate upon the design of residential properties.

123. Graphic Communication
Fall, Winter, Spring. 3(1-4)

Development of basic graphic skills as used on drawings in the professional practice of landscape architecture including drafting, lettering, and graphic presentation techniques.

124. Landscape Delineation
(224.) Winter, Spring. 4(1-6) 123.

Emphasis on the development of advanced skills in landscape delineation including mechanical and freehand perspective, shades and shadows, introduction to various graphic media, sketch techniques, and reproductive processes applicable to professional practice.

141. Theory of Design
Fall, Winter, Spring. 4(2-4)

Analysis and application of design principles, with studio projects incorporating various graphic and three-dimensional means of expression, emphasizing their significance to architecture and landscape architecture.

242. Introduction to Site Design
Fall, Spring. 4(1-6) 101, 123, 124, 141.

Basic considerations in site development including topography and ground form design, orientation, circulation, the design process, environmental design vocabulary, site analysis components, and projects incorporating these factors. Field trips required.

254. Architectural Design
Fall, Winter. 4(1-6) 101, 123, 124, 141.

Lectures, discussion, assigned readings and studio projects in architectual design, with emphasis on elementary structures and their sites.

255. Architectural Design
Spring. 4(1-6) 242, 254.

Continuation of 254 emphasizing larger, more complex structures and sites, structural systems and grouping of buildings.

317. Planting Design
Fall, Winter. 3(1-4) 242, HRT 211, 212.

Planting design emphasizing plants as elements in landscape design, their ecological requirements, their arrangement in the landscape, and the basic requirements of a planting plan.

318. Planting Design
Spring. 4(1-6) 317.

A continuation of 317, involving larger and more complex projects, including planting specifications and cost estimating. Field trips required.

330. Design Implementation I
Fall. 3(1-4) 242, MTH 108, C E 251.

Basic principles and computation methods involved in site construction and the preparation of contract drawings pertinent thereto with emphasis on ground forms, slopes and gradients, run-off, road alignment, walls and earth work.

331. *Design Implementation II*
Winter. 4(1-6) 330, 343.

Continuation of 330 with the further study of contract documents including bidding procedures, the preparation of a set of construction drawings for the development of a small site, specifications and the construction process.

332. *Design Implementation III*
(432.) Spring. 3(3-2) 331, 344.

Construction materials, their proper use, job supervision and office practice.

343. *Environmental Design Concepts*
Fall. 4(1-6) 242, 255, HRT 212.

Basic concepts in landscape design emphasizing the design process and conceptual thinking toward improving the quality of man's physical environment.

344. *Site Design for Housing*
Winter. 4(1-6) 343.

Low, medium and high-density developments for human shelter including the design of subdivisions and related facilities, and developments for apartments, townhouses, condominiums, and mass-produced units.

345. *Site Planning for Recreational Facilities*
Spring. 4(1-6) 331, 344.

Techniques of analysis and design for outdoor recreational facilities such as playgrounds, parks and parkways, golf courses, marinas and facilities for athletics. Field trips required.

402. *History of Environmental Development*
(202.) Winter, Spring. 4(3-0)

Analysis of man's attempts to organize and design outdoor space. Emphasis on major influences, people and historical landscape styles and movements.

421. *Bibliographic Research and Methods in Environmental Design*
Fall. 4(2-2) Senior majors.

Research into published information in environmental design; abstraction of data; synthesis into oral and written presentations.

430. *Special Projects in Environmental Design*
Summer. 5(2-6) 318, 332, 345.

The improvement of man's physical environment as taught by a sequence of highly regarded professional practitioners and educators in the environmental design professions.

440. *Graphic Communication*
Fall. 3(0-6) Bachelor of Science in Landscape Architecture.

Development and perfection of individual delineation techniques as applied to landscape design projects.

445. *Design Theory and Implementation—Natural Materials*
Fall. 3(0-6) Bachelor of Science in Landscape Architecture.

Designs, working drawings and specifications related to the use of vegetation and other natural materials on various projects in a wide range of scales.

446. *Site Planning for Urban Areas*
Fall. 5(2-6) 318, 332, 345.

Lectures, readings, and laboratory projects concerning site planning for public and quasi-public urban buildings and spaces, including central business districts, malls, plazas, and college and university campuses. Field trips required.

447. *Advanced Landscape Design*
Winter. 5(2-6) 446.

Lectures, readings and laboratory assignments on a variety of landscape design projects. A personal biographical dossier and portfolio, based on previous landscape architectural courses, is required from each student as collateral.

448. *Terminal Project in Design*
Spring. 5(2-6) 332, 447.

Completion of a design project, selected by the student and approved by the School, with report, simulating professional office procedures and demonstrating proficiency in beginning levels of professional landscape architecture. This involves the preparation of a set of drawings including site design, planting design, construction, rendering and sketching.

450. *Architectural Design*
Winter. 4(0-6) Bachelor of Science in Landscape Architecture.

Lectures, discussions, assigned readings, written reports, and studio projects in architectural design, emphasizing complex architectural planning, form structure and site relationships.

455. *History of Landscape Design*
Winter. 3(3-0) Bachelor of Science in Landscape Architecture.

Significant movements, personalities, and projects in landscape design, from ancient to contemporary times, with emphasis on the development of the current practice of landscape architecture.

460. *Research Methods*
Winter. 3(3-0) Bachelor of Science in Landscape Architecture.

Review of traditional and proven research methods in the physical and social sciences utilizing representative case studies as applied to environmental considerations.

465. *Seminar*
Spring. 3(3-0) Bachelor of Science in Landscape Architecture.

Professional philosophy of landscape architecture; the social responsibility of the landscape architect; administrative processes and methods essential for effective professional practice.

470. *Design Theory and Implementation—Construction*
Spring. 3(3-0) Bachelor of Science in Landscape Architecture.

Comprehensive site projects involving construction plans, working drawings, contract documents, cost estimates and office practice.

475. *Comprehensive Design*
Fall, Winter, Spring. 4(0-8) Must be repeated for a total of twelve credits. Bachelor of Science in Landscape Architecture.

Studio projects and discussions emphasizing the synthesis of landscape architectural principles and related disciplines as applied to a wide range of design scales and sites in both urban and regional contexts.

485. *Professional Contact*
Summer. 4(0-8) Bachelor of Science in Landscape Architecture.

Similar to 475, but taught by a sequence of highly regarded professional practitioners and educators in the environmental design professions.

490. *Special Problems*
Fall, Winter, Spring, Summer. 2 to 5 credits. May re-enroll for a maximum of 8 credits. Approval of school.

Investigation, for advanced undergraduate students in landscape architecture, developed from special interest areas.

801. *Graduate Landscape Architecture I*
Fall, Winter, Spring, Summer. 5 to 12 credits.

A series of complex problems of variable subject matter adjusted to the interests and needs of each individual student and designed to emphasize the various phases of landscape architecture such as plant materials and planting design, drafting and delineation, surveying and construction, contracts, specifications and reports, architecture and city planning and landscape design.

802. *Graduate Landscape Architecture II*
Fall, Winter, Spring, Summer. 5 to 12 credits. 801.

Continuation of 801.

803. *Graduate Landscape Architecture III*
Fall, Winter, Spring, Summer. 5 to 12 credits. 802.

Continuation of 802.

804. *Comprehensive Problem*
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 15 credits. 803.

Development of a terminal, creative project of subject matter selected by the student and approved by the department, involving the various phases of landscape architecture and submitted to the faculty as evidence of his mastery of the principles of his profession.

VETERINARY MEDICINE V M

(College of)

500. *Veterinary Medical Communication*
Fall, Spring. 1(1-0) Admission to the professional veterinary program.

Seminars on professional speaking and writing research design and data interpretation, and client relations.

600. *Veterinary Medical History, Ethics, and Jurisprudence*
Fall, Spring. 1(1-0) Admission to the veterinary professional program.

Seminars on historical background, ethical principles, and legal responsibilities of the veterinary medical profession.

ZOOLOGY ZOL

College of Human Medicine
College of Natural Science
College of Osteopathic Medicine

200. *Resource Ecology and Man*
For course description, see **Interdisciplinary Courses.**

204. *Natural History of Birds*
Fall. 4(2-6) Three terms of natural science; not open to zoology majors.

Identification of Michigan birds in field and laboratory, including life histories, habits, and consideration of their economics, aesthetic and recreational value.