871 Research Methods in Kinesiology

Spring. 3(3-0) R: Open only to graduate students in the Department of Kinesiology. SA: PES 871

Experimental, longitudinal, survey, and qualitative research methods in kinesiology. Writing research proposals and reports. Research ethics.

890 Independent Study in Kinesiology

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to master's students. Approval of department. SA: PES 890

Individual study in an area of kinesiology under faculty supervision.

893 Internship in Kinesiology

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in the Department of Kinesiology. SA: PES 893

Supervised internship in sports medicine, athletic administration, coaching, or education agencies. Capstone experience option in master's degree program.

894 Field Experiences in Kinesiology

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department. SA: PES 894

Supervised graduate practicum in schools or other settings.

895 Research Ethics

Summer. 1(1-0) Interdepartmental with Teacher Education; Counseling, Educational Psychology and Special Education; Educational Administration. R: Open only to graduate students in the Department of Counseling, Educational Psychology and Special Education or Department of Educational Administration or Department of Kinesiology or Department of Teacher Education. SA: PES 895

Identifying and resolving ethical problems in research, including issues related to collegial interactions; authorship, publication, and reviewing practices; data management; ownership of data and intellectual property; conflicts of interest; protectionof human and animal subjects; and lab safety and compliance.

897 Project in Kinesiology

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to master's students in the Department of Kinesiology. SA: PES 897

Project experience under the guidance and supervision of MSU faculty. Development of products such as technical reports, instructional media, or curriculum materials to address an educationally significant problem. Capstone experience option in master's degree program.

899 Master's Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (KIN 871) SA: PES 899

Master's thesis research.

910 Issues in Exercise Physiology

Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: (KIN 810) SA: PES 910

Selected issues in exercise physiology and related fields of study.

930 Issues in Biomechanical Aspects of Physical Activity

Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: (KIN 830) SA: PES 930

Selected issues of biomechanical analyses of sport and physical activity.

940 Issues in Psychosocial Aspects of Physical Activity

Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. SA: PES 940

Selected issues in the psychology and sociology of sport and physical activity.

960 Issues in Motor Behavior

Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: (KIN 860) SA: PES 960

Selected issues in motor development, motor learning, adapted physical education, and related fields of study.

990 Independent Study in Kinesiology

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to doctoral students. Approval of department. SA: PES 990

Individual study in an area of kinesiology under faculty supervision.

995 Research Practicum in Kinesiology

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to doctoral students in the College of Education. Approval of department. SA: PES 995

Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects.

999 Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 100 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Kinesiology. SA: PES 999

Doctoral dissertation research.

LANDSCAPE ARCHITECTURE

LA

School of Planning, Design and Construction College of Agriculture and Natural Resources

200 Introduction to Landscape Architecture Fall. 3(3-0)

Environmental issues and problem-solving strategies within landscape architecture.

220 Graphic Communication

Fall. 4(2-4) R: Open only to majors in Landscape Architecture or Urban and Regional Planning or Horticulture.

Planning or Horticulture.
Fundamentals of graphics including freehand and technical drafting, lettering, sketching, perspective drawing, and delineation and rendering. Principles of design and field drawing techniques. Also introduced: plan, section, elevation and basic symbols, references, methods of presentation and graphic reproduction.

240 Applied Design Fundamentals

Spring. 4(2-4) RB: (LA 220) or approval of department. R: Open only to majors in Landscape Architecture or Horticulture or Crop and Soil Sciences or Urban and Regional Planning

gional Planning.

Application of the principles and theory of design in advanced two-and three-dimensional representation.

270 Landscape Design History

Spring. 3(3-0)

History of landscape architecture. Landscape development styles, design forms, and organization.

311 Landscape Design and Management Specifications

Spring. 4(3-2) Interdepartmental with Horticulture. Administered by Department of Horticulture. P:M: (HRT 211 and HRT 212 or concurrently)

Landscape design techniques, spatial organization, plant selection, plant and site interaction. Relationship between design, construction and maintenance. Preparation of planting and maintenance specifications.

330 Site Construction: Materials and Methods

Fall. 4(2-4) RB: (LA 220) R: Open only to majors in Landscape Architecture, Horticulture or Crop and Soil Sciences or Park, Recreation and Tourism Resources.

Elements and principles of grading, drainage, construction materials and methods.

331 Site Engineering

Spring. 4(2-4) RB: (LA 330) R: Open only to majors in Landscape Architecture or Horticulture.

Principles and procedures for landscape engineering of site structures and systems such as road alignment, storm and subsurface drainage. Site utilities

341 Basic Site Design I

Fall. 4(2-4) RB: (LA 240) and (GEO 221 and HED 240) R: Open only to majors in Landscape Architecture or Horticulture or Crop and Soil Sciences or Urban and Regional Planning.

Introduction to the design process. Focus on program development, inventory, and analysis.

Basic Site Design II

Spring. 5(2-6) RB: (LA 341) R: Open only to majors in Landscape Architecture or Horti-culture or Crop and Soil Sciences or Urban and Regional Planning.

Development of design solutions for individual projects at a small scale. Focus on simple design programs and problems of limited complexity.

Introduction to Zoo and Aquarium 369 Science

Spring. 3(3-0) Interdepartmental with Zoology; Fisheries and Wildlife; Veterinary Medicine. Administered by Department of Zoology. P:M: (BS 110 or LBS 144 or LBS

Fundamentals of zoo and aquarium operations including research, interpretation, design, nutrition, captive breeding, conservation, ethics and management.

390 Landscape Architecture Field Studies

Fall, Spring. 2 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors in Landscape Architecture. Approval of department.

Field observation and analysis of selected professional offices, design and planning projects, natural areas, or places of historic interest. Background familiarization of selected study sites. Evaluation and synthesis of study experiences.

420 **Advanced Graphic Communication**

Spring. 4(1-6) RB: (LA 342) R: Open only to majors in Landscape Architecture.

Methods of 3-D visualization in the design process.

437 **Design Implementation**

Fall. 3(0-6) RB: (LA 331) R: Open only to seniors in the Landscape Architecture or Horticulture major. C: LA 443 concurrently, LA 480 concurrently.

Development of a complete package of contract documents for a representative site development project, including construction plans, bid documents, and specifications.

Golf Course Planning and Design 439

Fall of even years. 3(3-0) Interdepartmental Urban Planning. Administered by School of Planning, Design and Construction. RB: (LA 342) R: Open only to majors in Urban and Regional Planning.

History, planning, and design of the golf course as a component of the community. Environmental, regulatory, technical, and financing issues.

443 Community Project Design I

Fall. 5(2-6) RB: (LA 342) R: Open only to majors in Landscape Architecture or Urban and Regional Planning. Approval of department. C: LA 437 concurrently, LA 480 concurrently.

Development of design solutions for medium scale site development projects focusing on moderately complex design programs and problems.

Community Project Design II 444

Spring. 5(2-6) RB: (LA 443) R: Open only to majors in Landscape Architecture.

The community systems planning process. Application of multiple use theory and techniques. Integration of project demands and community infrastruc-

Advanced Project Design 445

Spring. 4(0-8) RB: (LA 444 and LA 480) R: Open only to seniors in Landscape Architec-

Application of design theory to complex site development projects in community settings. Interaction of human activities, sites, and end uses. Use of community feedback.

446 Regional Environmental Design

Fall. 3(0-6) RB: (LA 444) R: Open only to seniors in Landscape Architecture or approval of department.

Theory and tools in regional environmental design and their application to site facilities, assignment of land use, and management of landscape structure with special emphasis on spatial identity, visual quality, and environmental modeling. Human dimensions to landscape change.

480 **Professional Practice (W)**

Fall. 3(2-2) P:M: Completion of Tier I writing requirement. R: Open only to seniors or graduate students in Landscape Architecture. C: LA 437 concurrently, LA 443 concurrently.

Principles and procedures of professional office practice. Organization and management of offices, personnel, and projects. Ethical and legal issues.

Independent Study 490

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 7 credits in all enrollments for this course. R: Open only to students in Landscape Architecture. Approval of department.

Individual investigation of landscape architecture topics in the interest areas of the Landscape Architecture faculty.

492 Senior Research Seminar (W)

Spring. 3(2-2) P:M: Completion of Tier I writing requirement. R: Open only to seniors or graduate students in Landscape Architec-

Contemporary issues of relevance to the profession.

493 Internship in Landscape Architecture

Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to seniors in Landscape Architecture or approval of department.

Supervised experience in approved public agencies and professional offices.

494 Special Topics in Landscape Architecture

Fall, Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to juniors or seniors in Landscape Architecture or approval of department.

Selected subjects in landscape architecture derived from emerging issues and topics.

498 Internship in Zoo and Aquarium Science

Fall, Spring, Summer. 3 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. Interdepartmental with Zoology; Fisheries and Wildlife. Administered by Department of Zoology. R: Open only to juniors or seniors. Approval of department.

Application of zoological experience in a zoo or aquarium setting outside the university.

Environmental Design Theory

Fall. 3(3-0) Interdepartmental with Horticulture; Park, Recreation and Tourism Resources; Human Environment and Design. RB: Undergraduate design degree recommended.

Differences between normative theories, scientific theories, models, and constructs. Exploration of normative theories related to thesis or practicum.

Environmental Design Studio

Spring. 3(0-6) Interdepartmental with Horticulture; Park, Recreation and Tourism Resources; Human Environment and Design. P:M: (LA 816 and LA 883) RB: Undergraduate design degree.

Development of a student-selected environmental design project in a collaborative setting.

883 **Environmental Design Seminar**

Fall. 3(3-0) Interdepartmental with Horticulture; Park, Recreation and Tourism Resources; Human Environment and Design. RB: Undergraduate design degree.

Examination of the breadth of environmental design projects. Literature review of focused projects. Development of practicum or thesis proposals.

Master's Thesis Practicum

Fall, Spring, Summer. 3 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. RB: Undergraduate design degree. R: Open only to graduate students in Environmental Design.

Detailed professional application of a studentselected environmental design project.

899 Master's Thesis Research

Fall, Spring, Summer. 3 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. RB: Under-graduate design degree. R: Open only to graduate students in Environmental Design.

Preparation and completion of an independent

research thesis.

LABOR AND LIR INDUSTRIAL RELATIONS

School of Labor and Industrial Relations College of Social Science

Trade Union History, Structure, and 801 Administration

Fall, Spring. 3(3-0) R: Open only to students in the School of Labor and Industrial Relations.

History of American unions. Theories of unionism. Union structure, government and democracy. Role of unions in society and politics. Legal requirements of unions. Current union problems.