445 Sociocultural Analysis of Physical Activity (W)
Fall, Spring. 3(3-0) P:M: (KIN 170) and completion of Tier I writing requirement. R: Open only to seniors or graduate students. SA: PES 445
Sociocultural context of and social practices in sport and physical activity.

450 Design and Evaluation of Physical Activity Programs
Fall, Spring. 3(3-0) R: Open only to seniors or graduate students in the Department of Kinesiology. SA: PES 450
Development and evaluation of programs in kinesiology.

451 Physical Education in Preschools and Elementary Schools
Fall. 3(1-5) RB: (KIN 260 or KIN 460) Previous experience working with children. R: Not open to freshmen or sophomores. SA: PES 451 Not open to students with credit in TE 401. Methods of instruction for teaching physical activities to preschool and elementary school children. Development of teaching sequences. Clinical experience in teaching children and peers.

453 Administration of Intramural Sports Programs
Spring. 3(2-2) R: Not open to freshmen or sophomores. SA: PES 453
Organization and administration of intramural programs in educational settings. Philosophy, planning, scheduling, budgeting, facilities, officiating, exercise fitness, marketing, risk management, computer applications, and required practical experience in administering intramural programs.

454 Facility Planning and Construction
Spring. 3(3-0) R: Not open to freshmen or sophomores. SA: PES 454
Planning of athletic and physical education facilities such as gymnasium, ice rinks, swimming pools, and outdoor areas. Space utilization standards and guidelines. Selection of materials and equipment.

455 Issues in School Health Education
Spring. 3(3-0) P:M: (KIN 420) Community health issues and resources affecting educational programming. Teaching methods and techniques as applicable to traditional and controversial health topics.

456 Ethical Issues in Athletics
Summer. 2(2-0) R: Not open to freshmen or sophomores. SA: KIN 482C, PES 482C
Ethics of sports at the institutional level in contemporary society. Political, social, and commercial pressures.

460 Developmental Bases of Motor Skills
Fall, Spring. 2(2-0) R: Open only to majors in the College of Education and College of Human Ecology. Not open to students in the Department of Kinesiology. SA: PES 460 Not open to students with credit in KIN 260. Influence of physical growth and biological maturation on motor skill development. Sequential progressions of fundamental motor skills. Gross motor dysfunction and health-related fitness of children. Techniques of helping children to acquire skills.

465 Adapted Physical Activity
Fall, Spring. 3(2-2) P:M: (KIN 170) R: Not open to freshmen or sophomores. SA: PES 465
Teaching and coaching physical activities for persons with disabilities.

466 Practicum in Adapted Physical Activity
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department. SA: PES 466
Supervised teaching of physical activities and/or coaching sports to persons with disabilities and youths at risk.

467 Physical Activity and Disability
Fall, Spring. 2(2-0) R: Not open to freshmen or sophomores. Not open to Kinesiology majors. SA: PES 467 Not open to students with credit in KIN 465. Teaching and coaching of persons with disabilities.

490 Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department. SA: PES 490
Supervised individual or group study in various fields of emphasis in kinesiology.

493 Internship
Fall, Spring, Summer. 2 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department. SA: PES 493
Professional internship in kinesiology under faculty supervision.

494 Fieldwork
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department. SA: PES 494
Supervised practice in teaching physical education activities, coaching sports, administering sports programs, or conducting research or service activities in kinesiology.

LANDSCAPE ARCHITECTURE

Department of Geography
College of Social Science

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.
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(2-2) 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.
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, Agriculture, and Urban and Regional Planning.
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 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.

342 Basic Site Design II
Spring. 5(3-5) RB: (LA 341) R: Open only to majors in Landscape Architecture or Horticulture 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.

369 Introduction to Zoo and Aquarium 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 148H)
Fundamentals of zoo and aquarium operations including research, interpretation, design, nutrition, captive breeding, conservation, ethics and management.
430 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. 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.

439 Golf Course Planning and Design
Fall of even years. 3(3-0) Interdepartmental with Urban Planning, Administration by Department of Geography. R: (LA 342) R: Open only to seniors in the Landscape Architecture or Horticulture major. C: LA 443 concurrently and LA 480 concurrently. Development of a complete package of contract documents for a representative site development project, including construction plans, bid documents, and specifications.

440 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 and LA 443 concurrently. Principles and procedures of professional office practice. Organization and management of offices, personnel, and projects. Ethical and legal issues.

490 Independent Study
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 Architecture. Contempory 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 seniors or approval of department. Application of zoological experience in a zoo or aquarium setting outside the university.

390 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.

337 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 and LA 480 concurrently. Development of a complete package of contract documents for a representative site development project, including construction plans, bid documents, and specifications.

339 Community Project Design I
Fall. 3(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 and LA 480 concurrently. Development of design solutions for medium scale site development projects focusing on moderately complex design programs and problems.

344 Community Project Design II
Spring. 3(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 infrastructure.

345 Advanced Project Design
Spring. 4(0-8) RB: (LA 444 and LA 480) R: Open only to seniors in Landscape Architecture. Application of design theory to complex site development projects in community settings. Interaction of human activities, sites, and end uses. Use of community feedback.

346 Pedagogical English Grammar for English Teachers
Fall. 3(3-0) P:M: (LIN 200 or LIN 401) RB: (LIN 434) Teaching grammar to English-as-second-language (ESL) students. Grammar lesson plan development. English grammar, error identification, common English-as-second language errors, evaluation of grammar textbooks, and the role of error correction in English-as-second language teaching.

461 Second Language Acquisition
Fall. 3(3-0) P:M: Completion of Tier I writing requirement. R: Open only to freshmen or sophomores. Approval of department. SA: ENG 461 Factors in second language learning such as age, motivation, language input and interaction, social influences, the role of the native language, and language universals.

LARGE ANIMAL CLINICAL SCIENCES

Department of Large Animal Clinical Sciences

College of Veterinary Medicine

412 Hazard Analysis and Critical Control Points in Production Medicine
Spring. 2(2-0) R: Not open to freshmen. Not open to graduate-professional students in the College of Veterinary Medicine. Animal disease and health in relation to livestock production, food safety and public health. Production medicine and the ability to develop hazard analysis critical control points (HACCP) strategies for animal disease management.

LATIN

Department of French, Classics, and Italian
College of Arts and Letters

101 Elementary Latin I
Fall. 4(4-0) R: No previous experience in Latin or designated score on Latin placement test. Fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.

102 Elementary Latin II
Spring. 4(4-0) P:M: (LTN 101) or designated score on Latin placement test. Continued study of the fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.

201 Latin Prose
Fall. 4(4-0) P:M: (LTN 102) or designated score on Latin placement test. Intermediate-level Latin prose based on readings of such authors as Sallust, Livy, and Cicero.

202 Latin Poetry
Spring. 4(4-0) P:M: (LTN 201) Intermediate-level Latin poetry of the Republic and Augustan periods.