858. Collective Bargaining  
Fall, Summer. 3(3-0)  
R: Open only to students in the School of Labor and Industrial Relations.  
Description—Labor and Industrial Relations  
Theory and practice of collective bargaining. Wages, benefits, seniority, grievances, arbitration, and labor-management committees. Legal, economic, technological, and historical contexts.  
QA: LIR 858

860. Negotiation and Conflict Resolution  
Spring. 3(3-0)  
P: LIR 824 or LIR 858. R: Open only to students in the School of Labor and Industrial Relations. Negotiation and conflict resolution in employment settings. Use of experiential simulations to develop bargaining strategies.  
QA: LIR 858

863. Law of Labor Management Relations  
Fall, Spring. 3(3-0)  
R: Open only to students in the School of Labor and Industrial Relations. Legal framework for contract negotiations and administration. National Labor Relations Act as amended. Right to organize and undertake concerted activity. Strikes and lockouts. Unfair labor practices.  
QA: LIR 863

865. Grievance Administration and Arbitration  
Spring. 3(3-0)  
P: LIR 858 or LIR 863. R: Open only to students in the School of Labor and Industrial Relations. Grievance procedures and arbitration as the terminal step in the grievances process under collective bargaining. Grievance procedures in non-union employment settings.  
QA: LIR 858 or LIR 863 QA: LIR 865

871. Collective Bargaining in Public Employment  
Fall. 3(3-0)  
P: LIR 858 or LIR 863. R: Open only to students in the School of Labor and Industrial Relations. History and current status of collective bargaining policies and practices in public jurisdictions, including federal, state, and local government units.  
QA: LIR 868

891. Special Topics in Labor Relations and Human Resources  
Fall. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.  
R: Open only to students in the School of Labor and Industrial Relations. Special topics in collective bargaining, human resources, employment, and training.  
QA: LIR 881

934. Survey Methods in Labor and Industrial Relations  
Spring of odd-numbered years. 3(3-0)  
R: Open only to students in the School of Labor and Industrial Relations. Design and conduct of data collection operations in labor and industrial relations. Sample design and sampling procedures. Use of field questionnaires and interviews schedules. Data editing, coding, and analysis.  
QA: LIR 824

992A. Seminar in Organizational Behavior and Human Resources  
Pall of odd-numbered years. 3(3-0)  
A student may earn a maximum of 6 credits in all enrollments for this course.  
P: LIR 823 and LIR 824. R: Open only to students in the School of Labor and Industrial Relations. Research and policy analysis of selected topics in organizational behavior and human resources in labor and industrial relations.  
QA: LIR 923

992B. Seminar in Collective Bargaining and Labor Unions  
Spring of even-numbered years. 3(3-0)  
A student may earn a maximum of 6 credits in all enrollments for this course.  
P: LIR 801 and LIR 858. R: Open only to students in the School of Labor and Industrial Relations. Research and policy analysis of selected topics in collective bargaining and labor unions.  
QA: LIR 958

LANDSCAPE ARCHITECTURE  

200. Introduction to Landscape Architecture  
Fall. 3(3-0)  
Environnental issues and problem-solving strategies within landscape architecture.  
QA: LA 100, LA 201

220. Graphic Communication  
Fall. 2(2-4)  
R: Open only to students in Landscape Architecture, Urban and Regional Planning, and Horticulture. Freehand and mechanical drafting and lettering, sketching, and perspective drawing. Graphic symbols and diagrams. Delineation and rendering media and techniques. Presentation and graphic reproduction methods.  
QA: LA 120, LA 221

240. Applied Design Fundamentals  
Spring. 4(2-4)  
R: Open only to majors in Landscape Architecture, Horticulture, Crop and Soil Sciences, and Urban Planning. Application of the principles and theory of design in advanced two- and three-dimensional representation.  
QA: LA 110, LA 221

270. Landscape Design History  
Spring. 3(3-0)  
History of landscape architecture. Landscape development styles, design forms, and organization.  
QA: LA 270, LA 471

330. Site Construction: Materials and Methods  
Fall. 2(2-4)  
R: Open only to majors in Landscape Architecture, Horticulture, Crop and Soil Sciences, and Park and Recreation Resources. Elements and principles of grading, drainage, construction materials and methods.  
QA: LA 220 or LA 221 QA: LA 233, LA 330

331. Site Engineering  
Spring. 2(2-4)  
R: Open only to majors in Landscape Architecture and Horticulture. Principles and procedures for landscape engineering of site structures and systems such as road alignment, storm and subsurface drainage, site utilities.  
QA: LA 233, LA 330 QA: LA 332

341. Basic Site Design I  
Fall. 4(2-4)  
P: LA 240. R: Open only to students in Landscape Architecture, Agriculture, Crop and Soil Sciences, and Urban Planning. Introduction to the design process. Focus on program development, inventory, and analysis.  
QA: LA 120 QA: LA 240

342. Basic Site Design II  
Spring. 4(2-4)  
P: LA 241. R: Open only to students in Landscape Architecture, Agriculture, Crop and Soil Sciences, and Urban Planning. Development of design solutions for individual projects at a small scale. Focus on simple design programs and problems of limited complexity.  
QA: LA 240 QA: LA 340 LA 340E

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 and seniors in Landscape Architecture. Preparation for field work in the design process.  
QA: LA 390

401. Environmental Land-Planning Theory  
Fall. 3(3-0)  
R: Open only to seniors and graduate students. Issues and principles of ecology-based land planning. Use of natural resources in development. Assessment of environmental quality. Environmental regulations and policies at local, state, and national levels.  
QA: LA 401

420. Advanced Graphic Communication  
Spring. 4(1-6)  
P: LA 342. R: Open only to majors in Landscape Architecture. Methods of 3-D visualization in the design process.  
QA: LA 420

437. Design Implementation  
Spring. 3(0-6)  
P: LA 331, LA 480. R: Open only to seniors in the fifth year of the Landscape Architecture major and to seniors in Horticulture. Development of a complete package of contract documents for a representative site development project, including construction plans, bid documents, and specifications.  
QA: LA 437

443. Community Project Design I  
Fall. 4(2-4)  
P: LA 342. R: Open only to students in Landscape Architecture with an urban design cognate and to students in Urban Planning. Development of design solutions for medium scale site development projects focusing on community design opportunities.  
QA: LA 340L QA: LA 342, LA 346

444. Community Project Design II  
Spring. 4(2-4)  
P: LA 443. R: Open only to students in Landscape Architecture. The community systems planning process. Application of the design theory and techniques. Integration of project demands and community infrastructure.  
QA: LA 340L QA: LA 342, LA 346

445. Advanced Project Design  
Spring. 4(0-8)  
P: LA 444, LA 440. R: Open only to juniors and seniors in Landscape Architecture. Application of design theory to complex site development projects in community settings, interactions of human activities, sites, and ends use. Use of community feedback.  
QA: LA 444, LA 490 QA: LA 445
473. Urban Design Theory
Fall, 3(0-0)
R: Not open to freshmen and sophomores.
Concepts and procedures for the organization, design, and development of public and private urban forms and spaces. Focus on American communities.
QA: LA 408, LA 471

480. Professional Practice
Spring, 3(2-2)
P: LA 445. Open only to seniors and graduate students in Landscape Architecture.
Principles and procedures of professional office practice. Organization of information, personnel, and projects. Ethical and legal issues.
QA: LA 348. QA: LA 480

480H. Honors in Landscape Architecture
Fall, Spring, 3 to 4 credits. A student may earn a maximum of 7 credits in all enrollments for this course.
R: Open only to Honors College seniors. Approval of department.
Supervised individual investigation of Landscape Architecture topics.
QA: LA 400H

492. Senior Research Seminar
Spring, 3(2-2)
R: Open only to seniors and graduate students in Landscape Architecture.
Contemporary issues of relevance to the profession.
QA: LA 489

LARGE ANIMAL CLINICAL SCIENCES

LCS

Department of Large Animal Clinical Sciences
College of Veterinary Medicine

412. Principles of Production Medicine
Spring, 2(2-0)
R: Open only to juniors and seniors in College of Agriculture and Natural Resources. Animal health with emphasis on infectious, parasitic and metabolic disease control and prevention. Principles of production medicine.
QA: LCS 412

610. Problems in Large Animal Clinical Sciences
Fall, Spring, Summer: 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to students with credit in LCS 616. Establishing and maintaining equine health programs. Reproduction, parasite control, immunization, and dermatologic medicine and surgery in the field.
QA: LCS 616

612. Problems in Production Medicine
Fall, Spring, Summer: 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 640 or LCS 681; approval of department.
R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Production medicine problems of livestock health management. Course offered through a consortium with the universities of Illinois, Florida, California, and Nebraska, and Kansas State University, work to be completed at one of those universities.

620. Equine Medicine and Surgery Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 681.
Supervised experience in equine medicine and surgery. Diagnoses, treatment, and prevention of common diseases of horses in a field setting.
QA: LCS 620

621. Equine Field Service Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Diagnosis, treatment, and prevention of common diseases of horses in a field setting.
QA: LCS 621

622. Advanced Equine Medicine and Surgery Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 620. R: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 682.
In-depth, supervised equine medicine and surgery.
QA: LCS 628

623. Equine Musculoskeletal Diseases Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Complete of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 683.
Techniques and procedures used for the diagnosis and management of equine musculoskeletal diseases. Hospitalized and field cases.
QA: LCS 623

624. Equine Theriogenology Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 620. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in LCS 644.
Emphasis on diagnostic methods utilized in equine reproduction.
QA: LCS 644

625. Equine Herd Health Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 621. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in LCS 644.
Emphasis on diagnostic methods utilized in equine reproduction.
QA: LCS 644

630. Food Animal Medicine and Surgery Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 664.
Supervised experience in food animal species in a hospital setting. Disease process related to herd of origin.
QA: LCS 660

631. Introductory Food Animal Production Medicine
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 680.
Management of on-farm environment. Epidemiological approach to problem solving involving total herd medicine.
QA: LCS 680

632. Advanced Food Animal Medicine and Surgery Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 631. Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 672.
In-depth, supervised food animal medicine and surgery.
QA: LCS 672

633. Dairy Production Medicine Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 631. Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 684.
Dairy farm and herd health management. Record keeping, general management, housing, nutrition. Mastitis control.
QA: LCS 684

634. Swine Production Medicine Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: LCS 631. Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 684.
Swine diseases and related production problems encountered in swine herd health programs.
QA: LCS 688

640. Large Animal Anesthesia Clerkship
Fall, Spring, Summer: 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 656.
Concepts and supervised practice in large animal anesthesiology.
QA: LCS 656

642. Special Problems-Research Clerkship
Fall, Spring, Summer: 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the professional veterinary program. R: Open only to second year graduate-professional students in College of Veterinary Medicine. Application required. Research related to a large animal specialty. Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 642

644. Theriogenology Clerkship
Spring, Summer: 2 credits. R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 644.
Theriogenology, identification and management of infectious diseases in livestock.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 644