

- 473. Urban Design Theory**
Fall, 3(3-0)
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 403, LA 471
- 480. Professional Practice**
Spring, 3(2-2)
P: LA 443. R: Open only to seniors and graduate students in Landscape Architecture. Principles and procedures of professional office practice. Organization and management of offices, personnel, and projects. Ethical and legal issues.
QP: LA 346 QA: LA 480
- 490. Independent Study**
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 students in Landscape Architecture. Approval of department. Individual investigation of landscape architecture topics in the interest areas of the Landscape Architecture faculty.
QA: LA 490
- 490H. 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 483
- 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: Seniors in Landscape Architecture or approval of department. Supervised experience in approved public agencies and professional offices.
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: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Advanced clinical training in a problem related to large animal clinical sciences.
- 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 630 or LCS 631; 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 650. Supervised practice in equine medicine and surgery. Diagnosis, prognosis, treatment, and disease prevention.
QA: LCS 650
- 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.
- 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 graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in LCS 654. In-depth, supervised equine medicine and surgery.
QA: LCS 654
- 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: 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 651. Techniques and procedures used for the diagnosis and management of equine musculoskeletal diseases. Hospitalized and field cases.
QA: LCS 651
- 624. Equine Theriogenology Clerkship**
Fall, Spring, Summer, 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate-professional students 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 666. Establishing and maintaining equine herd health programs. Reproduction, parasite control, immunization, and diagnostic medicine and surgery in the field.
QA: LCS 666
- 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 660. Disease diagnosis and therapy of 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 660. Management of on-farm environment. Epidemiological approach to problem solving involving total herd medicine.
QA: LCS 660
- 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 630, 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 664. Dairy farm and herd health management. Record keeping, general management, housing, nutrition. Mastitis control.
QA: LCS 664
- 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 668. Swine diseases and related production problems encountered in swine herd health programs.
QA: LCS 668
- 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 graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 656. Concepts and supervised practice in large animal anesthesia.
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.
R: Open only to fourth 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.
- 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 624. Clinical experience with diagnostic methods used in large animal reproduction. Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 644

**Descriptions—Large Animal Clinical Sciences
of
Courses**

**650. Equine Medicine and Surgery
Clerkship**

Fall, Spring, Summer. 6 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 620.
Supervised practice in equine medicine and surgery. Diagnosis, prognosis, treatment, and disease prevention.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 650

**651. Equine Musculoskeletal Disease
Clerkship**

Fall. 2 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 623.
Diagnosis and management of equine musculoskeletal diseases. Hospitalized and field cases.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 651

**654. Advanced Equine Medicine and
Surgery Clerkship**

Spring. 2 credits.
P: LCS 650. R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 622.
In-depth, supervised equine medicine and surgery.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 654

**656. Large Animal Anesthesiology
Clerkship**

Fall, 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 640.
Concepts and supervised practice in large animal anesthesiology.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 656

**660. Field Service and Food Animal
Clerkship**

Fall, Spring, Summer. 6 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 630 or LCS 631.
Management of individual and herd animal disease problems. Hospital and on-farm environment. Theriogenology. Herd health management and clinical epidemiology.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QP: LCS 630 or LCS 631 QA: LCS 660

664. Dairy Herd Health Clerkship

Fall, Spring. 2 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 633.
Dairy farm and herd health management. Record keeping, general management, housing, nutrition. Mastitis control.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 664

666. Equine Herd Health Clerkship

Fall, Spring. 2 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 625.
Establishing and maintaining herd health programs for equine operations.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 666

668. Swine Herd Health Clerkship

Fall, Spring. 2 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 634.
Swine diseases and related production problems in swine herd health programs.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 668

672. Advanced Food Animal Clerkship

Spring. 2 credits.
P: LCS 660. R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 632.
In depth, supervised food animal surgery and medicine.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 672

674. Preceptorship

Fall, Spring, Summer. 4 credits.
R: Open only to fourth year graduate-professional students in College of Veterinary Medicine. Not open to students with credit in LCS 677 or VM 610 or VM 611.
Applied large animal clinical science in private practices. Supervised off-campus experience.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 674

**676. Veterinary Nutrition for Livestock
Clerkship**

Fall, Spring. 2 credits.
P: LCS 660. R: Open only to fourth year graduate-professional students in College of Veterinary Medicine.
Evaluating the nutritional status and rations of livestock.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 676

677. Veterinary Preceptorship

Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in LCS 674 or VM 610 or VM 611.
Applied large animal clinical science in private practices. Supervised off-campus experience.
QA: LCS 674

**809. Special Problems in Large Animal
Surgery**

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department.
Elective work in surgical research problems student's interest.
QA: LCS 809

**811. Special Problems in Large Animal
Medicine**

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department.
Elective work in medicine related research problems student's interest.
QA: LCS 811

813. Seminar

Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course.
R: Open only to graduate students in Large Animal Clinical Sciences or Small Animal Clinical Sciences. Approval of department.
Presentation and discussions of current topics by graduate students, faculty, or outside speakers.

**825. Experimental Surgical Techniques for
Animal Research**

Fall of odd-numbered years. 2(1-2)
P: B.S. degree. R: Open only to graduate students. Approval of department.
Humane treatment of research animals. Anesthesia, aseptic surgical techniques. Instrumentation for surgery, suture materials and patterns. Tissue handling and wound healing.

827. Comparative Theriogenology

Spring of odd-numbered years. 2(2-0)
P: VM 580. R: Open only to graduate students in Large Animal Clinical Sciences or Small Animal Clinical Sciences. Approval of department.
Comparative pathophysiology of reproductive systems of domestic animals. Emphasis on clinical theriogenology.

828. Tropical Animal Health

Spring. 2(2-0)
R: Open only to graduate-professional students in College of Human Medicine, College of Osteopathic Medicine, College of Veterinary Medicine. Approval of department.
Animal health in the tropics. Impact on agriculture, the livestock industry, and human welfare.

**829. Design and Conduct of
Epidemiological Studies and
Clinical Trials**

Spring. 2(2-0)
P: VM 533. R: Open only to graduate student. Approval of department.
Applied analytical methods in experimental design. Assessment of health and disease status of animal and human populations. Risk assessment and interpretation of clinical trials.

899. Master's Thesis Research

Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 18 credits in all enrollments for this course.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department.

901. Investigating the Lung

Fall of even-numbered years. 3(3-0) Inter-departmental with Physiology and Pathology.
R: Open only to M.S. and Ph.D. students in Large Animal Clinical Sciences, Small Animal Clinical Sciences, Physiology, and Pathology. Approval of department.
Classic and current concepts of respiratory structure and function in health and disease. Mechanisms of lung injury.
QA: LCS 901

999. Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department.

LATIN

LTN

**Department of Romance and
Classical Languages
College of Arts and Letters**

101. Elementary Latin I

Fall. 4(4-1)
R: No previous experience in Latin or designated score on Latin placement test.
Fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.
QA: LTN 101, LTN 102

102. Elementary Latin II

Spring. 4(4-1)
P: LTN 101 or designated score on Latin placement test.
Continued study of the fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.
QP: LTN 102 QA: LTN 102, LTN 103