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 403, LA 471

490. Professional Practice Spring, 3(2-2)
P: LA 445. R: Open only to seniors and graduate students in Landscape Architecture.
Principles and procedures of professional office practice. Organization of design, research, personnel, and projects. Ethical and legal issues.
QP: LA 346 QQA: 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 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 in College of Veterinary Medicine. Not open to students with credit in LCS 660.
Establishing and maintaining equine herd health programs. Reproduction, parasitic control, immunization, antimicrobial medicine and surgery in the field.
QA: LCS 660

618. Food Animal Medicine and Surgery Clerkship
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, to be completed at one of those universities.

619. 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, treatment, and prevention of common diseases of horses in a field setting.
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.
Not open to students with credit in LCS 650.
In-depth-supervised practice in 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 650.
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 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: Completion of semester 5 of the graduate-professional program in the 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 processes related to herd of origin.
QA: LCS 660

630. 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 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 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 665.
Swine diseases and related production problems encountered in swine herd health programs.
QA: LCS 665

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 665.
Concepts and supervised practice in large animal anesthesia.
QA: LCS 666

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 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.
QA: LCS 644

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 and diagnostic methods used in large animal reproduction.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: LCS 644
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 622. 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 680. 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, 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. Human, animal, and environmental interactions. Theriogenology. Herd health management and clinical epidemiology. Temporary approval effective from Fall Semester 1992 through Spring Semester 1996. QA: LCS 660 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 833. Dairy farm and herd health management. Record keeping, genetics, management, 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 825. 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 for related production problems in swine herd health programs. Temporary approval effective from Fall Semester 1992 through Spring Semester 1996. QA: LCS 688

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 practice. 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.
R: Open only to fourth year graduate-professional students in 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 practice. Supervised off-campus experience. Temporary approval effective from Fall Semester 1992 through Spring Semester 1996. QA: LCS 677

809. Special Problems in Large Animal Surgery
Fall, Spring, Summer. 1 to 3 credits.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department. Effective 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.
R: Open only to graduate students in Large Animal Clinical Sciences. Approval of department. Effective work in medical 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. Approval of department. Effective work in medical related research problems student's interest. QA: LCS 813

825. Experimental Surgical Techniques for Animal Research
Fall of even-numbered years. 2(2-0) P: B.S. degree. R: Open only to graduate students. Approval of department. Human and nonhuman research animals. Anesthesia, aseptic surgical techniques. Instrumentation for surgery, tissue handling and wound healing.

827. Comparative Theriogenology
Spring of odd-numbered years. 2(2-0) P: VM 560. 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.

829. 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

839. Master's Thesis Research
Fall, Spring, Summer. 1 to 6 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) Interdepartmental 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. Classification, 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

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. QA: LTN 102 QA: LTN 102, LTN 103