461 Second Language Acquisition  
Fall, 3(3-0) P:M: Completion of Tier I writing requirement. R: Not open 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.

807 Methods of Teaching English to Speakers of Other Languages  
Spring, 3(3-0) R: Open only to graduate students in College of Arts and Letters. SA: ENG 807  
Approaches, methods, and materials for teaching English to non-native speakers, including the teaching of listening, speaking, reading, and writing. Selection and evaluation of materials, lesson planning, and management of activities and materials.

808 Studies in Teaching English to Speakers of Other Languages  
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (ENG 807) R: Open only to master's students in English-Teaching of English to Speakers of Other Languages. SA: ENG 808  

841 Topics in Second/Foreign Language Learning and Teaching  
Fall, Spring, 3(3-0)  
Selected topics and issues in second/foreign language learning and teaching.

846 English Structures and Functions  
Spring, 3(3-0) R: Open only to master's students in English-Teaching of English to Speakers of Other Languages. SA: ENG 846  
Phonological, morphological, grammatical, lexical, discourse and pragmatic systems of English, including historical origins and social, regional, and gender variations. Application to the teaching of English to speakers of other languages.

872 Research Methods for Language Teaching and Foreign/Second Language Learning  
Fall, Spring, 3(3-0) RB: (LLT 807 and LLT 461)  
Concepts and procedures for designing and conducting research in second/foreign language learning and teaching.

890 Independent Study  
Fall, Spring, Summer, 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

896 Practicum in Teaching English as a Second Language  
Spring, 3(3-1)  
Syllabus and lesson plan development for a six-week English as a Second Language course. Team teach in a community setting.

897 Teaching English as a Second Language  
Spring, 3(3-0)  
Teaching of pedagogical skills and grammar at different proficiency levels.

898 Master's Research  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.  
Directed research in support of Plan B master's degree requirements.

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.  
Directed research leading to a master's thesis, used in partial fulfillment of Plan A master's degree requirements.

992B Seminar in English as a Second Language  
Fall, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to doctoral students in the College of Arts and Letters or approval of department. SA: ENG 992B  
Contemporary theories and issues relating to learning English as a second language.

LARGE ANIMAL CLINICAL SCIENCES  
LCS

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.

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 or approval of department.  
Advanced clinical training in a problem related to large animal clinical sciences.

611 Research 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 or approval of department.  
Research related to a large animal specialty

613 Off-Campus Problems in Large Animal Clinical Sciences  
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. Approval of department.  
Advanced clinical-phase training in an off-campus setting in a specific problem related to large animal clinical sciences, for which on-campus training is not available. The student's specific training objective will be developed and approved from both an on-campus liaison and the off-campus liaison.

620 Equine Clinical Clerkship I  
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Supervised practice in equine medicine and surgery. Diagnosis, prognosis, treatment, and disease prevention. Required clerkship.

621 Equine Practice Clerkship  
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Supervised, off-campus experience in an assigned veterinary practice. Regular equine farm calls. After-hours emergencies. Veterinary practice management.

622 Equine Clinical Clerkship II  
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (LCS 620) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Advanced general training in equine medicine and surgery.

623 Equine Musculoskeletal Diseases Clerkship  
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Techniques and procedures used for the diagnosis and management of equine musculoskeletal diseases. Hospital and field cases.

624 Equine Theriogenology Clerkship  
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Emphasis on diagnostic methods utilized in equine reproduction.

625 Equine Herd Health Clerkship  
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Establishing and maintaining equine herd health programs. Reproduction, parasite control, immunization, and diagnostic medicine and surgery in the field.
626 Advanced Equine Surgery
Fall, Spring, Summer. 3 credits. RB: (LCS 620 and LCS 622) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Advanced, in-depth training in overall surgical management of equine surgical patients. Emphasis on breeds used for racing or sport.

627 Advanced Equine Medicine
Spring. 3 credits. RB: (LCS 620) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Advanced, in-depth training in the medical management of equine patients. Emphasis on neonates.

628 Techniques in Equine Anesthesia and Surgery
Fall, Spring, Summer. 3 credits. RB: (LCS 620 and LCS 622 and LCS 640) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.

630 Food Animal Medicine and Surgery Clerkship
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Principles of diagnosis, treatment and prevention of diseases in food and fiber animals. Provides in-clinic and off-campus experience. Required clerkship.

631 Food Animal Practice Clerkship
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Supervised, off-campus experience in an assigned veterinary practice. Regular food animal farm calls. After-hours emergencies. Veterinary practice management.

632 Advanced Food Animal Medicine and Surgery Clerkship
Fall, Spring, Summer. 3 credits. RB: (LCS 630) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
In-depth, supervised food animal medicine and surgery.

634 Swine Production Medicine Clerkship
Fall, Spring, Summer. 3 credits. RB: Permission of course moderator R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Swine diseases and related production problems encountered in swine herd health programs.

635 Advanced Dairy Production Medicine
Fall, Spring, Summer. 3 credits. RB: (LCS 633 and LCS 643) or permission of course moderator R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Topics related to enhancing profitability, decreasing disease, and improving management of dairy farms.

638 Beef Production Medicine
Fall. 3 credits. RB: (LCS 630 or LCS 631) and (LCS 643) or permission of course moderator R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Veterinary management of production and health of beef cattle. Optional visits to out-of-state facilities may be offered.

639 Small Ruminant Medicine
Fall, Spring, Summer. 3 credits. RB: (LCS 643) or permission of course moderator R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Health care to small ruminants on an individual and flock or herd basis. Emphasis on sheep.

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. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Concepts and supervised practice in large animal anesthesiology.

641 Food Animal Theriogenology
Fall, Spring, Summer. 3 credits. RB: (LCS 630 and LCS 643) or permission of course moderator R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Techniques for evaluating the reproductive performance of food animal individuals and populations. Emphasis on cattle. Farm visits.

646 Equine Neonatal Medicine Clerkship
Summer. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.

677 Veterinary Preceptorship
Fall, Spring, Summer. 3 credits. RB: (LCS 620 or LCS 621 or LCS 630 or LCS 631) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Applied large animal clinical science in private practices. Supervised off-campus experience.

680 Food Animal Techniques
Spring. 3 credits. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Basic food animal techniques including surgery, anesthesia, diagnostic and therapeutic procedures.

681 Food Animal Production Medicine I
Spring. 3 credits. RB: (LCS 680) or approval of department. R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Entry-level principles of production medicine as applied to food animal practice. Discussion and laboratory format.

682 Food Animal Production Medicine II
Spring. 3 credits. P:M: (LCS 682) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Continuation of LCS 681 involving farm evaluations and group problem solving. Application and further development of skills and concepts introduced in LCS 681.

683 Food Animal Production Medicine III
Spring. 3 credits. P:M: (LCS 682) R: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Individual, on-farm experiences lasting approximately one week. Analysis of farm records and production medicine variables. Advanced production medicine topics.

809 Special Problems in Large Animal Surgery
Fall, Spring. 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.

811 Special Problems in Large Animal Medicine
Fall, Spring. 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.

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 years. 2(1-2) RB: 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.
Design and Conduct of Epidemiological Studies and Clinical Trials
Spring. 3(2-2) Interdepartmental with Epidemiology. RB: (VM 553) or approval of department. R: Open only to graduate students in the colleges of Human Medicine, Osteopathic Medicine, or Veterinary Medicine. Applied analytical methods in experimental design. Assessment of health and disease status of animals and human populations. Risk assessment and interpretation of clinical trials.

Epidemiology of Foodborne Diseases and Food Safety: An Overview
Fall. 3(3-0) Interdepartmental with Epidemiology. RB: Advanced undergraduate courses in biology, microbiology, biological sciences, biochemical sciences, food technology. R: Approval of department. Epidemiologic survey of important foodborne diseases addressing recent trends. Sources of surveillance data. Measurement and management of risk factors associated with major foodborne diseases. Tracking foodborne pathogens from farm to table. Introduction to Hazard Analysis Critical Control Points (HACCP).

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 Master's thesis research.

Investigating the Lung
Fall of even years. 2(2-0) Interdepartmental with Physiology; Pathology. R: Open only to graduate students. Integrative biology of the lung; structure and function; molecular, cellular, and organ responses to injury.

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 doctoral students in Large Animal Clinical Sciences. Doctoral dissertation research.

Latin

Department of Romance and Classical Languages
College of Arts and Letters

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.

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.

Linguistics

Department of Linguistics
College of Arts and Letters

Introduction to Language
Fall, Spring. 3(3-0) Not open to students with credit in LIN 401. Linguistic structure of language. Applications of linguistics to other disciplines. Human and societal aspects of the nature, use, acquisition, and history of languages.

Women and Language
Fall. 3(3-0) Interdepartmental with Women's Studies. Women and language in societies around the world. Issues such as status and verbal politeness, importance of names, gender differences in language use, women's multilingualism, sexist language, gendered language development in children.

Special Topics in Linguistics
Fall. Spring. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. Special topics supplementing regular course offerings proposed by faculty on a group study basis.

Introduction to Linguistics
Fall. Spring. 4(4-0) Not open to students with credit in LIN 200. Basic goals, concepts, methods, and research results of modern theoretical and applied linguistics. Examples from a variety of languages.

History of Linguistics
Spring. 3(3-0) P:M: (LIN 200 or LIN 401) Origin and development of linguistic studies from ancient Greece to the present. Foundation for the understanding of contemporary issues in linguistics and in society.

Introduction to Phonetics and Phonology
Fall. Spring. 3(3-0) P:M: (LIN 200 or LIN 401) Phonetics, phonetics features and components, phonological phenomena, phonemic analysis, sound systems and data analysis.

Writing Systems
Fall. Spring. 3(3-0) P:M: (LIN 200 or LIN 401) Writing systems of the world and their history and organization in the context of linguistic science. Special attention is given to the typology of these systems and the ways they relate to the structure of spoken language.

Morphological and Syntactic Phenomena
Fall. 4(4-0) P:M: (LIN 424 or concurrently) Structure of words, phrases, clauses, and sentences. Relations among words. Examples from languages of the world, and formal methods for their description.

Introduction to Syntax
Fall. Spring. 3(3-0) P:M: (LIN 200 or LIN 401) Structure of sentences and structural relations among phrases. Methods of syntactic analysis and argumentation.

Semantics and Pragmatics
Fall. 3(3-0) P:M: (LIN 200 or LIN 401) Semantic properties and relations. Entailment, ambiguity, theories of word and sentence meaning, and logical form. Topics in pragmatics, such as presupposition, conversational implicature, speech acts.

Historical Linguistics
Fall. 3(3-0) Types of linguistic change and the methods used by linguists to study the historical development of languages and language families.