

**992A Seminar in Organizational Behavior and Human Resources**  
Fall of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (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.

**992B Employment Relations Theory and Research**  
Fall of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (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.

## LANGUAGE, LEARNING AND TEACHING

LLT

### Department of Linguistics and Germanic, Slavic, Asian and African Languages College of Arts and Letters

**307 Methods of Teaching English to Speakers of Other Languages**  
Spring. 3(3-0) P:M: Completion of Tier I writing requirement. SA: ENG 307  
National and international approaches, methods, materials, settings, needs, and characteristics of TESOL. Survey, evaluation, and application of major effective methods and materials.

**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.

**361 Second and Foreign Language Learning**  
Fall, Spring. 3(3-0) P:M: (LIN 200) SA: LIN 461

Basic principles of learning a second or foreign language. Issues in first language acquisition. Theories of second language learning. Aptitude, motivation, attitude, learning grammar, age, learning in a classroom, myths, and facts about second language learning.

**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 Language Teaching Methods**  
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 foreign and second languages, including the teaching of listening, speaking, reading, and writing. Selection and evaluation of materials, lesson planning, and management of activities and materials.

**808 Advanced Studies in Language Teaching**  
Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (LLT 807) R: Open only to master's students in Teaching English to Speakers of Other Languages. SA: ENG 808  
Application of second language acquisition theory and research to pedagogical practice. Needs analysis and syllabus design. Testing methods and assessment in the macroskills. Case studies in language teaching. Contemporary issues including professional development.

**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: Only open to master's students in Teaching 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.

**861 Advanced Topics in Second Language Acquisition**  
Fall. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (LLT 461 or LLT 872) R: Approval of department.

Advanced course in second language acquisition. Topics will vary from year to year based on current topics in the field and faculty interests.

**862 Advanced Research in Second Language Acquisition**  
Spring. 3(3-0) P:M: (LLT 861) R: Approval of department.

Continuation of LLT 861. Professional development seminar in second language acquisition. Research project. Collecting and analyzing data. Preparing projects for conference presentation and publication. Topics vary.

**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 8 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) A student may earn a maximum of 6 credits in all enrollments for this course.  
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

**423 Principles of Fish and Wildlife Disease**  
Spring of odd years. 3(3-0) Interdepartmental with Fisheries and Wildlife. Administered by Department of Fisheries and Wildlife. P:M: (BS 110 or LBS 144 or LBS 148H) RB: Additional course work in ecology, zoology, microbiology or environmental science. R: Open only to juniors or seniors or graduate students in the College of Agriculture and Natural Resources, the College of Natural Science, or the College of Veterinary Medicine.

Diseases of fish and wildlife species. Disease detection and diagnosis. Ecological and epidemiological analysis and management of major classes of wildlife diseases. Threatened and endangered species, game species, and fish and wildlife species that serve as vectors or reservoirs of human and domestic animal diseases.

## Large Animal Clinical Sciences—LIR

- 423L Principles of Fish and Wildlife Disease Laboratory**  
Spring of odd years. 1(0-3) Interdepartmental with Fisheries and Wildlife. Administered by Department of Fisheries and Wildlife. RB: Additional laboratory course work in ecology, zoology, microbiology or environmental sciences. C: FW 423 concurrently.  
Tools for diagnosis and assessment of disease in fish and wildlife populations. Field trips required.
- 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. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: 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. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Approval of department.  
Research related to a large animal specialty.
- 613 Problems in Large Animal Clinical Sciences at Off-Campus Sites**  
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Approval of department.  
Advanced clinical-phase training in large animal clinical sciences for which on-campus training is not available. Individualized problems and training objectives.
- 620 Equine Clinical Clerkship I**  
Fall, Spring, Summer. 3 credits. RB: 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. RB: 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) 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. RB: 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. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
Diagnostic methods used in equine reproduction.
- 625 Equine Herd Health Clerkship**  
Fall, Spring. 3 credits. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
Establishment and maintenance of 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) 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. Breeds used for racing or sport.
- 627 Advanced Equine Medicine**  
Spring. 3 credits. RB: (LCS 620) 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) Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
Advanced equine anesthesia and surgery. Preoperative care of University-owned equids, induction of anesthesia, and performance of minor surgical procedures.
- 630 Food Animal Medicine and Surgery Clerkship**  
Fall, Spring, Summer. 3 credits. RB: 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. In-clinic and on-farm experience. Required clerkship.
- 631 Food Animal Practice Clerkship**  
Fall, Spring, Summer. 3 credits. RB: 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) 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: 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.
- 638 Beef Production Medicine**  
Fall. 3 credits. RB: (LCS 630 or LCS 631 or LCS 680 or LCS 681) 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**  
Spring, Summer. 3 credits. RB: 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. RB: 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 680 and LCS 681 and LCS 682) 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. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
Principles of breeding farm management. Diagnosis and treatment of equine neonatal disorders. Supervised, in-clinic experience. Elective clerkship.
- 677 Veterinary Preceptorship**  
Fall, Spring, Summer. 3 credits. RB: (LCS 620 or LCS 621 or LCS 630 or LCS 631) 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.

- 678 Government and Corporate Veterinary Practice**  
 Spring. 3 credits. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
 Study of government veterinary practice issues including state, federal and international regulatory medicine, state and federal public health, state and federal wildlife, military veterinary medicine, food safety, and animal control. Study of corporate veterinary practice pertaining to the pharmaceutical and chemical industries.
- 680 Food Animal Techniques**  
 Spring. 3 credits. RB: 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: 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**  
 Fall, Spring. 3 credits. P:M: (LCS 681 or concurrently) RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
 Continuation of LCS 681. Farm evaluations and group problem-solving. Application and further development of skills and concepts.
- 683 Food Animal Production Medicine III**  
 Spring. 3 credits. P:M: (LCS 682 or concurrently) RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
 Analysis of farm records and production medicine variables. Advanced production medicine topics. Individual, off-campus farm experiences required.
- 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.
- 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 the Department of Large Animal Clinical Sciences. Approval of department.  
 Elective work in medicine-related research problems.
- 813 Seminar**  
 Fall, Spring. 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.  
 Individualized program of seminar attendance culminating in a student-presented seminar relevant to a specific discipline.

- 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.
- 829 Design and Conduct of Epidemiological Studies and Clinical Trials**  
 Spring. 3(2-2) Interdepartmental with Epidemiology. RB: (VM 533) 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 animal and human populations. Risk assessment and interpretation of clinical trials.
- 830 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).
- 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  
 Master's thesis research.
- 901 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.
- 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 doctoral students in Large Animal Clinical Sciences.  
 Doctoral dissertation research.

**LATIN**

**LTN**

**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.
- 122 Accelerated Elementary Latin**  
 Fall of even years. 5(5-2) Not open to students with credit in LTN 101 or LTN 102.  
 Accelerated introductory Latin, with emphasis on vocabulary, morphology, and syntax.
- 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.
- 206 Nepos and Latin Prose**  
 Fall of even years. 3(3-0) P:M: (LTN 102)  
 Selected lives of Cornelius Nepos in the original Latin, with readings in other early and Republican prose authors.
- 208 Catullus and Lucretius**  
 Spring of odd years. 3(3-0) P:M: (LTN 102)  
 Readings from Catullus's poems and from Lucretius's "De Rerum Natura" in Latin with additional readings.
- 211 Livy and Roman Historiography**  
 Fall of odd years. 3(3-0) P:M: (LTN 102)  
 Selections from Livy's "Ab Urbe Condita" in the original Latin.
- 221 Virgil and Latin Poetry**  
 Spring of even years. 3(3-0) P:M: (LTN 102)  
 Readings from Virgil's "Eclogues", "Georgics", and "Aeneid" in Latin. Additional readings from other Latin poets of the later Republic and Augustan periods.
- 224 Accelerated Intermediate Latin**  
 Spring of even years. 5(5-2) P:M: (LTN 102 or LTN 122) Not open to students with credit in LTN 206 or LTN 208 or LTN 211 or LTN 221.  
 Accelerated intermediate Latin with emphasis on reading and Neo-Latin.
- 290 Independent Study**  
 Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.  
 Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.