

895. **Readings in Labor and Industrial Relations**
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 8 credits. Approval of school.

899. **Master's Thesis Research**
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 9 credits. Approval of school.

911. **Seminar in Manpower**
Fall. 4(3-0) Approval of school.
Critical study of research and policy on selected manpower problems.

923. **Seminar in Organizational Behavior**
Spring. 4(4-0) Approval of school.
Research and policy on selected problems of organizational behavior in labor and industrial relations.

958. **Seminar in Collective Bargaining and Trade Union Behavior**
Spring. 4(3-0) EC 858 or approval of school.
Critical study of selected contemporary areas and issues in collective bargaining.

LANDSCAPE ARCHITECTURE

See Urban Planning and Landscape Architecture

LARGE ANIMAL SURGERY AND MEDICINE LSM

College of Veterinary Medicine

412. **Livestock Hygiene and Disease Control**
Spring. 3(3-0) Juniors; Agriculture majors.
Fundamentals of health and disease in animals, relation of infectious and parasitic diseases of animals to human health, disease prevention and role of veterinarian in preventive medicine.

IDC. **The Impact of Animal Resource Management Upon the World's Developing Nations**
For course description, see *Interdisciplinary Courses*.

621. **Integrative Clinical Problems**
Fall, Winter, Spring, Summer. 2(0-6) to 4(0-12) May reenroll for a maximum of 12 credits. Approval of department.
Comprehensive problem-solving explorations of selected clinical diseases, either systems or species oriented, in large animals.

642. **Special Problems-Research**
Fall, Winter, Spring, Summer. 2 to 4 credits. May reenroll for a maximum of 8 credits. LSM 650 or LSM 660 or LSM 670, approval of department.
Research related to a large animal specialty.

650. **Equine Clerkship I**
Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 8 of the professional veterinary curriculum, approval of department.
Concepts and supervised practice in equine medicine. Emphasis on diagnosis, prognosis, treatment and disease prevention.

652. **Equine Clerkship II**
Fall, Winter, Spring, Summer. 4 credits. LSM 650 and approval of department.
Advanced, supervised equine medicine and surgery.

654. **Equine Clerkship III**
Fall, Winter, Spring, Summer. 4 credits. LSM 652 and approval of department.
In-depth, supervised equine medicine and surgery.

656. **Large Animal Anesthesiology Clerkship I**
Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 8 of the professional veterinary curriculum, LSM 650, approval of department.
Concepts and supervised practice in large animal anesthesiology.

660. **Ambulatory Clerkship I**
Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 8 of the professional veterinary curriculum, approval of department.
Concepts and supervised practice in ambulatory clinics. Emphasis is on diagnosis, prognosis, treatment and disease prevention.

662. **Ambulatory Clerkship II**
Fall, Winter, Spring, Summer. 4 credits. LSM 660, approval of department.
Advanced, supervised ambulatory clinics.

664. **Ambulatory Clerkship III**
Fall, Winter, Spring, Summer. 4 credits. LSM 662, approval of department.
In-depth, supervised farm animal medicine and surgery.

666. **Herd Health Clerkship I**
Fall, Winter, Spring, Summer. 4 credits. LSM 660, approval of department.
Concepts and supervised procedures for preventing health problems in herds maintained for food and fiber production.

670. **Food Animal Clerkship I**
Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 8 of the professional veterinary curriculum, approval of department.
Concepts and supervised practice in food animal medicine. Emphasis on diagnosis, prognosis, treatment and disease prevention.

672. **Food Animal Clerkship II**
Fall, Winter, Spring, Summer. 4 credits. LSM 670, approval of department.
Advanced, supervised food animal surgery and medicine.

674. **Preceptorial Clerkship**
(603.) Fall, Winter, Spring, Summer. 8(0-24) to 16(0-48) May reenroll for a maximum of 16 credits. LSM 660, LSM 670, approval of department.
Applied large animal clinical science. Students participate in all activities in assigned private practices tutored by practitioners with adjunct faculty appointments.

809. **Problems in Large Animal Surgery**
Fall, Winter, Spring, Summer. Variable credit.

811. **Problems in Large Animal Medicine**
Fall, Winter, Spring, Summer. Variable credit.

813. **Seminar**
Fall, Winter, Spring. 1 credit.

899. **Research**
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 18 credits. Approval of department.
Research on thesis problems.

921. **Pathology of Nutritional and Metabolic Diseases**
Summer of even-numbered years. 4(3-2) Approval of department; PTH 404 or ANT 420. ANS 525, BCH 452, HNF 462 recommended. Interdepartmental with the departments of Animal Husbandry and Pathology and Human Nutrition and Foods. Administered by Human Nutrition and Foods.
Development, physiopathology and morphologic pathology of nutritional and metabolic diseases including carbohydrate, protein, fatty acid, vitamin and mineral deficiencies, their experimental induction and their medical or economic significance.

LATIN

See Romance and Classical Languages

LINGUISTICS AND ORIENTAL AND AFRICAN LANGUAGES

College of Arts and Letters

Courses in Chinese and Japanese on the 300 level or higher are normally conducted in the language.

Linguistics and Oriental and African Language Courses LOA

299. **Special Projects**
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 18 credits. Approval of department.
Work in areas outside regular course offerings.

315. **World Literature in English**
Fall. 3(3-0) Interdepartmental with and administered by the Department of English. Representative works, not from England or the United States, which were written originally in English, especially the English literature of present or former British Commonwealth nations, and nations from the Middle East and Africa.

316. **World Literature in English Translation**
Winter. 3(3-0) Interdepartmental with the Department of English.
Significant and characteristic works of the Orient, the Middle East, and Africa in English translation.

**Descriptions – Linguistics and Oriental and African Language
of
Courses**

317. Genres and Themes in World Literature
Spring. 3(3-0) *Interdepartmental with and administered by the Department of English.* Work will center each term round a single literary genre, type or theme. Typical examples: The Quest, Literature of Revolt, Satire. Literary examples will be selected from several national literatures.

499. Special Projects
Fall, Winter, Spring, Summer. *Variable credit. May reenroll for a maximum of 18 credits. Approval of department.* Work in areas outside regular course offerings.

African Languages AFR

101. African Languages–Elementary
Fall. 5(3-2) *May reenroll for AFR 101-102-103 sequence in more than one African language.* Comprehension and speaking taught by a linguist with native informants. Offerings include Bemba, Hausa, Ibo, Pidgin, Swahili, Yoruba. These and other African languages are taught upon sufficient demand and availability of instructors.

102. African Languages–Elementary
Winter, 5(3-2) *May reenroll for AFR 101-102-103 sequence in more than one African language. AFR 101.* Continuation of AFR 101.

103. African Languages–Elementary
Spring. 5(3-2) *May reenroll for AFR 101-102-103 sequence in more than one African Language. AFR 102.* Continuation of AFR 102.

200H. Honors Work
Fall, Winter, Spring. 1 to 16 credits. *Approval of department.*

201. African Languages–Intermediate
Fall. 4(5-0) *May reenroll for AFR 201-202-203 sequence in more than one African language. AFR 103 in appropriate language or approval of department.* Continuation of African Languages–Elementary. Comprehension, speaking, reading and writing taught by a linguist with native informants. See AFR 101 for languages available.

202. African Languages–Intermediate
Winter. 4(5-0) *May reenroll for AFR 201-202-203 sequence in more than one African Language. AFR 201.* Continuation of AFR 201.

203. African Languages–Intermediate
Spring. 4(5-0) *May reenroll for AFR 201-202-203 sequence in more than one African language. AFR 202.* Continuation of AFR 202.

400H. Honors Work
Fall, Winter, Spring. *Variable credit. Approval of department.*

420. African Literature in Translation
Fall, Winter, Spring. 3(3-0) *May reenroll for a maximum of 9 credits. Juniors or approval of department.* Development and influence of the ideas, forms and motifs of African literatures in the literatures of the world.

450. African Languages–Advanced
Fall, Winter, Spring. *Variable credit. May reenroll for a maximum of 18 credits. Approval of department.* Advanced training or specialized research in particular African languages.

Chinese CHS

101. Elementary Chinese
Fall. 5(3-5) Introduction to Mandarin, the official spoken language of China, with emphasis on pronunciation drill and conversation practice.

102. Elementary Chinese
Winter. 5(3-5) CHS 101. Continued practice in conversation and aural comprehension; introduction to the reading and writing of Chinese characters.

103. Elementary Chinese
Spring. 5(3-5) CHS 102. Continuation of CHS 102 and grammatical analysis of basic Chinese sentence structure.

200H. Honors Work
Fall, Winter, Spring. 1 to 16 credits. *Approval of department.*

201. Second-Year Chinese
Fall. 3(3-0) CHS 103. Conversation, reading, and writing at the intermediate level.

202. Second-Year Chinese
Winter. 3(3-0) CHS 201. Reading of advanced texts; introducing Chinese radicals and practice in the use of a Chinese dictionary.

203. Second-Year Chinese
Spring. 3(3-0) CHS 202. Continuation of CHS 202; selected texts from Chinese newspapers, periodicals, and political journals.

221. Second-Year Conversation and Composition
Fall. 2(2-0) CHS 103. Conversation and composition at the intermediate level to supplement CHS 201.

222. Second-Year Conversation and Composition
Winter. 2(2-0) CHS 221. Continuation of CHS 221.

223. Second-Year Conversation and Composition
Spring. 2(2-0) CHS 222. Continuation of CHS 222.

250. Chinese Calligraphy
Spring. 2(2-0) *One year in Chinese language or approval of department.* The essential characteristics of and fundamental skills involved in writing Chinese characters, from the point of view of practical use.

301. Readings in Modern Chinese Literature
Fall. 3(3-0) CHS 203. Selected short stories from authors of the twentieth century.

302. Readings in Modern Chinese Literature
Winter. 3(3-0) CHS 301. Selected essays from authors of the twentieth century.

303. Readings in Classical Chinese Literature
Spring. 3(3-0) CHS 302. Selections from the writings of the important philosophers, historians and poets.

321. Conversation and Composition
Fall, Winter, Spring. 3(3-0) *May reenroll for a maximum of 9 credits. CHS 203.* Directed topical conversation and practice in composition.

400H. Honors Work
Fall, Winter, Spring. *Variable credit. Approval of department.*

401. Survey of Chinese Literature
Fall, Winter, Spring. 3(3-0) *May reenroll for a maximum of 9 credits. Oral command and reading knowledge of Chinese language.* Survey of Chinese literature from earliest record to contemporary writings. Lectures and discussions conducted in Chinese. Most assigned readings in Chinese, some in English translation.

420. Oriental Literature in Translation
Fall, Winter, Spring. 3(3-0) *May reenroll for a maximum of 9 credits. Juniors or approval of department.* Development and influence of the ideas, forms and motifs of Far Eastern literatures in the literatures of the world.

431. Chinese Poetry
Fall. 3(3-0) *Reading knowledge of Chinese.* Rise and development of Chinese poetry with particular attention to poetry of the T'ang Dynasty.

432. Chinese Drama
Winter. 3(3-0) *Reading knowledge of Chinese.* Special emphasis on drama of the Yuan Dynasty.

Japanese JAP

101. Elementary Japanese
Fall. 5(4-1) Spoken and written Japanese; emphasis on conversation and easy reading.

102. Elementary Japanese
Winter. 5(4-1) JAP 101. Continuation of JAP 101.

103. Elementary Japanese
Spring. 5(4-1) JAP 102. Continuation of JAP 102.

201. Second-Year Japanese
Fall. 3(3-0) JAP 103. A second-year course, stressing both oral and written Japanese.

202. Second-Year Japanese
Winter. 3(3-0) JAP 201. Continuation of JAP 201.

- 203. Second-Year Japanese**
Spring. 3(3-0) JAP 202.
Continuation of JAP 202.
- 221. Second-Year Composition**
Fall. 2(2-0) JAP 103.
Review grammar and composition to supplement JAP 201.
- 222. Second-Year Composition**
Winter. 2(2-0) JAP 221.
Continuation of JAP 221.
- 223. Second-Year Composition**
Spring. 2(2-0) JAP 222.
Continuation of JAP 222.
- 400H. Honors Work**
Fall, Winter, Spring. Variable credit.
Approval of department.
- Linguistics** **LIN**
- 200. Language and Linguistics**
Fall, Winter, Spring. 3(3-0)
Especially for students in areas other than linguistics, this course consists of an introduction to language and linguistics, emphasizing the application of linguistics to various other disciplines.
- 320. Introduction to Sociolinguistics**
Winter. 3(3-0)
The association of linguistic features and choice among linguistic varieties with socio-cultural variables. Topics: small group interactions, styles and dialects, multilingualism, code-switching, language maintenance and shift, language policy.
- 401. Introduction to Linguistics**
Fall, Winter, Spring, Summer. 4(4-0)
Juniors or approval of department. Not open to students with credit in LIN 200.
The scientific study of human languages. Basic goals, assumptions, terminology, and research results of modern theoretical and applied linguistics, with examples from a variety of languages.
- 402. Phonology**
Fall, Winter. 3(3-0) LIN 200, LIN 401 or approval of department.
Sounds and sound systems, emphasizing the four basic areas of articulatory phonetics, phonetic features and components, classical phonemics, and phonology in contemporary linguistic theories.
- 403. Morphology**
Winter, Spring. 3(3-0) LIN 402 the previous term or approval of department.
Structure of words, covering the identification and classification of morphemes, morphophonemics alternation, and morphology in contemporary linguistic theories.
- 404. Syntactic Phenomena**
Spring. 3(3-0) LIN 200 or LIN 401.
Essential syntactic phenomena in the languages of the world. Syntactic description of phrases, clauses, and sentences, and its relation to morphological structures and meaning structures.
- 408. History of Linguistics**
(811.) Fall. 3(3-0) LIN 200 or LIN 401.
The origin and development of linguistic studies from ancient India and Greece to the present. Provides a foundation for the understanding of contemporary issues in linguistics.
- 410. Child Language Acquisition**
Fall. 3(3-0) LIN 200 or LIN 401 or approval of instructor.
Linguistic issues, perspectives, and research on the acquisition of language, in spoken and written form, by children; phonology, morphology, syntax, semantics, and linguistic universals; implications for related disciplines.
- 421. Articulatory Phonetics**
Fall, Spring. 3(2-2) Approval of department.
Development of phonetic skills for the learning and teaching of languages.
- 425. Field Methods**
(841.) Fall. 3(3-0) May reenroll for a maximum of 9 credits. LIN 403 or approval of department.
Methods of working with informants in order to gather linguistic information, processing and analyzing data, writing linguistic descriptions.
- 431. Introduction to Transformational Grammar**
Winter, Spring. 3(3-0) LIN 200, LIN 401 or approval of department.
Investigation of the origin and development of transformational theory of syntax; properties of deep structure, surface structure, and transformations; application of transformational concepts to native and foreign language learning.
- 471. Principles and Methods of Historical Linguistics**
Winter. 3(3-0) LIN 403 or concurrently.
Types of linguistic change and the methods used by linguists to study the historical development of languages and language families.
- 490. Senior Research**
Spring. 3(3-0)
Individual projects demonstrating ability to do independent research.
- 808. Foundations of Modern Linguistics**
Fall. 3(3-0) LIN 403.
Critical reading of basic texts of modern linguistics from 1900 to the 1950's with primary emphasis on American writers.
- 821. Phonological Analysis**
Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 9 credits. Approval of department.
Advanced study of phonology, generally utilizing one of the following theories: stratificational, tagmemic, transformational.
- 831. Grammatical Analysis**
Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 9 credits. Approval of department.
Advanced study of syntax and related topics, generally utilizing one of the following theories: stratificational, tagmemic, transformational.
- 835. Semantics of Natural Languages**
Spring. 3(3-0) LIN 431 or approval of department.
Selected topics on the study of meaning in human languages. History, issues, and theories of semantics.
- IDC. Interdisciplinary Seminar on Africa**
For course description, see *Interdisciplinary Courses*.
- 851. African Linguistics**
Winter. 3(3-0) May reenroll for a maximum of 9 credits. LIN 401; LIN 402 or concurrently.
Investigation of linguistic issues and phenomena in one or a group of African languages.
- 860. Special Projects**
Fall, Winter, Spring, Summer. Variable credit. Approval of instructor.
Supervised study, reading, and research in specialized areas of linguistics.
- 865. Contrastive Analysis**
Spring. 3(3-0) LIN 403.
The essentials of contrastive analysis, with emphasis on methods of making such analysis. The usefulness of and controversies concerning contrastive analysis will also be discussed.
- 871. Comparative Indo-European Linguistics**
Spring of odd-numbered years. 3(3-0) LIN 471.
Comparative linguistics as applied to the investigation of the development and historical relationships of the languages of the Indo-European family.
- 880. Seminar in Linguistics**
Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 18 credits in different topics. Approval of department.
Advanced critical study of current topics in linguistics such as applications to other disciplines, aspects of linguistic theory, child language acquisition, contrastive analysis, structure of particular languages.
- 899. Research**
Fall, Winter, Spring, Summer. Variable credit. Approval of instructor.
- 999. Research**
Fall, Winter, Spring. Variable credit. Approval of instructor.

**LYMAN BRIGGS
COLLEGE**

LBC

- 111. College Algebra**
Fall. 5(5-0) Placement Test or approval of college. Not open to students with credit in MTH 108, MTH 109, or MTH 111.
Topics covered include polynomial, trigonometric, exponential, and logarithmic functions, their inverses and their properties; and analytic geometry with an emphasis on conics.
- 112. Calculus I**
Fall, Winter, Spring. 5(5-0) LBC 111 or MTH 109; LBC 124 concurrently. Not open to students with credit in MTH 112.
Topics covered include sequences and their limits, derivatives of rational power functions, techniques of differentiation, applications, numerical methods for evaluating polynomials and approximating square roots.