

277A. Spanish Track II
(267A.) Winter. 4(4-0) 216A,
216B; 277B concurrently.
Continuation of 216A.

277B. Spanish Track II
(267B.) Winter. 3 credits. 277A
concurrently.
Oral practice. Continuation of 216B.

318A. Spanish Track II
(308A.) Spring. 4(4-0) 277A,
277B; 318B concurrently.
Continuation of 277A.

318B. Spanish Track II
(308B.) Spring. 3 credits. 318A
concurrently.
Oral practice. Continuation of 277B.

236A. Spanish Track III
(226A.) Fall. 4(4-0) Three years
high school Spanish, placement test. 236B Con-
currently.

Intensive study of Spanish for oral understand-
ing, speaking, reading, and writing to permit
enriched cultural insight.

236B. Spanish Track III
(226B.) Fall. 2 credits. Three years
high school Spanish, placement test. 236A con-
currently.

Oral practice.

297A. Spanish Track III
(287A.) Winter. 4(4-0) 236A,
236B; 297B concurrently.
Continuation of 236A.

297B. Spanish Track III
(287B.) Winter. 2 credits. 297A
concurrently.
Oral practice. Continuation of 236B.

348A. Spanish Track III
(338A.) Spring. 4(4-0) 297A,
297B; 348B concurrently.
Continuation of 297A.

348B. Spanish Track III
(338B.) Spring. 2 credits. 348A
concurrently.
Oral practice. Continuation of 297B.

286A. Spanish Track IV
(276A.) Fall. 3(3-0) Four years
high school Spanish, placement test. 286B con-
currently.

Intensive study of Spanish for oral understand-
ing, speaking, and writing to permit enriched
cultural insight.

286B. Spanish Track IV
(276B.) Fall. 2 credits. Four
years high school Spanish, placement test. 286A
concurrently.
Oral practice.

337A. Spanish Track IV
(327A.) Winter. 3(3-0) 286A,
286B; 337B concurrently.
Continuation of 286A.

337B. Spanish Track IV
(327B.) Winter. 2 credits. 337A
concurrently.
Oral practice. Continuation of 286B.

368A. Spanish Track IV
(358A.) Spring. 3(3-0) 337A,
337B; 368B concurrently.
Continuation of 337A.

368B. Spanish Track IV
(358B.) Spring. 2 credits. 368A
concurrently.
Oral practice. Continuation of 337B.

Language and Culture

141A. Studies in Language and Culture
Fall. 3(3-0) 141B concurrently.

Analysis of language in human culture and of
language learning to acquaint the student with
a broad knowledge of the nature and function of
language with illustrations from a variety of
languages, ancient and modern.

141B. Studies in Language and Culture
Fall. 1 credit. 141A concurrently.

Independent study in language and culture.

142A. Studies in Language and Culture
Winter. 3(3-0) 141A or approval of
college; 142B concurrently.

Lectures on the basic concepts of phonetics and
phonemics with intensive drills in the recogni-
tion, transcription and reproduction of sound,
rhythm, tone and intonation to prepare students
to transcribe any language he may study. Pho-
nemic drills will be possible for the lan-
guage students will study in the following term.

142B. Studies in Language and Culture
Winter. 1 credit. 142A concurrently.

Independent study in language and culture.

Independent, Field, and Foreign Study

400A. Independent Study
Fall, Winter, Spring, Summer. 2 to
12 credits. Approval of college.

Study in a selected number of ways on a selected
number of topics under the guidance of the stu-
dent's adviser.

400B. Field Study
Fall, Winter, Spring, Summer. 4 to
12 credits. Approval of college.

Study in off-campus situations in a variety of
ways using involvement in community service,
government, or business as means to cultural in-
sight.

400C. Foreign Study
Fall, Winter, Spring, Summer. 4 to
12 credits. Approval of college.

Study abroad in a variety of places under the
guidance of an adviser.

410. Studies in Composition
Fall, Winter, Spring. 4 to 8 credits.
103.

Intensive individual and seminar instruction in
advanced composition.

499. Senior Seminar
Fall, Winter, Spring. 3 to 5 credits.
Seniors.

Study of selected topics of international and
cross-cultural significance in small groups. Each
student will be expected to approach his topic
from at least two disciplinary points of view.

LABOR AND INDUSTRIAL RELATIONS

LIR

College of Social Science

**801. Labor in Twentieth Century
America**
Fall, Winter. 4(3-0) EC 305 or ap-
proval of school.

Review of the history of American labor and
its evolving structure and an analysis of cur-
rent problems facing unions.

803. Seminar in Industrial Relations
For course description, see Interdis-
ciplinary Courses.

**811. Manpower Programs and
Institutions**
Winter. 4(4-0) EC 457.

Role and effectiveness of the public employment
service, vocational and apprenticeship programs,
retraining and vocational rehabilitation activities,
etc., as instruments of an active manpower policy.

813. Income Maintenance Programs
Fall. 4(3-0) Approval of school.

Causes and social consequences of poverty.
Nature and effectiveness of income transfer pro-
grams against poverty and insecurity. Integra-
tion with manpower programs. Relation be-
tween public and private programs.

815. Labor Force Behavior
Spring. 4(4-0) EC 457 Interdepart-
mental with the Department of Economics.

Theoretical and empirical analysis of factors af-
fecting labor force participation rates, unemploy-
ment levels, employment distribution, hours of
work, and labor mobility. Concepts and meas-
urement methods.

817. Methods of Program Evaluation
Winter. 4(3-0) Approval of school.

Principles of benefit-cost analysis, cost-effec-
tiveness analysis, and other methods of evalua-
tion applicable to human resource programs.

**823. Organizational Behavior in
Labor and Industrial Relations**
Fall. 4(4-0) Approval of school. In-
terdepartmental with the Sociology Department.

Analysis of why organizations, individuals and
groups in unions, management and government
act as they do in industrial relations situations
with emphasis on sociological, psychological and
cultural factors.

824. Employment Relations
Fall, Winter. 4(3-0) Approval of
school.

A social system approach to employment rela-
tions and employee utilization in private and
public organizations.

**825. Employee Compensation and
Incentives**
Spring. 4(3-0) MGT 810 or ap-
proval of school.

Theory and practice of payment systems in
private and public employment. Compensa-
tion and motivation. Job evaluation and per-
formance review. Incentive plans, executive
compensation, and fringe benefits.

833. Data Sources and Research Methods in Labor and Industrial Relations
Fall, Winter. 4(3-0) One undergraduate statistics course.

Review and evaluation of sources and data, analysis of research design and methods used in study of labor and industrial relations.

841. Collective Bargaining in Public Employment
Spring, Summer. 4(3-0) EC 305 or approval of school.

History and current status of collective bargaining practices and governmental policies in the public sector.

854. Comparative Industrial Relations Systems
Winter. 4(3-0) EC 305.

Comparative analysis of industrial relations systems in countries of various stages of economic development.

857. Wage Theory

Fall. 3 credits. EC 320, 324, or approval of department. Interdepartmental with and administered by the Economics Department. Advanced analysis of: theories of wage determination; labor market research, economic effects of collective bargaining upon the national wage structure, output, employment, distribution of national income, the price level; nature and effects of government wage policies.

858. Industrial Relations

Winter. 3 credits. EC 305 and approval of department. Open to graduate students in economics and related fields such as labor and industrial relations, psychology, sociology, anthropology, political science, business, and history. Interdepartmental and administered jointly with the Economics Department. Problems and issues in the administration and negotiation of collective bargaining agreements; includes both economic and noneconomic aspects of industrial relations policies and practices.

865. Grievance Administration and Arbitration

Winter, Spring. 4(3-0) Approval of school.

Grievance procedure and arbitration as the terminal step in the grievance process. Analysis of industrial common law.

881. Advanced Seminar in Labor and Industrial Relations

Spring. 4(4-0) May re-enroll for a maximum of 8 credits. Twelve graduate credits or approval of school.

Integrative and synthesizing seminar for advanced students; intensive analysis of selected problems in labor and industrial relations.

895. Readings in Labor and Industrial Relations

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 8 credits. Approval of school.

899. Research in Labor and Industrial Relations

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 9 credits. Approval of school.

901. Theories of the Labor Movement

Fall. 4(4-0) 801 or approval of school.
Selected topics in the philosophy, theory, and behavior of the labor movement.

911. Seminar in Manpower

Fall. 4(3-0) Approval of school.

Critical study of research and policy on selected manpower problems.

958. Seminar in Collective Bargaining
Spring. 4(3-0) EC 858 or approval of school.

Critical study of selected contemporary areas and issues in collective bargaining.

LABORATORY ANIMAL RESOURCES LAR

College of Veterinary Medicine

824. Laboratory Animal Medicine

(VSM 824.) Fall, Spring. 3(2-3)
Completion of ninth-term professional Veterinary Medicine program.

Basic physiologic data, housing requirements, genetics, breeding systems, diseases, humane practices, and nutrition, of major laboratory animal species; administration of animal quarters, techniques of handling and treatment.

825. Comparative Medical Experimentation

Spring. 2(1-3) Graduate status, B. S. in biological sciences and approval of department.

Critical analysis of animal experimentation reported in biological journals related to the students' interest with special emphasis on effects of environment and host variables upon validity of experimental results.

826. Laboratory Animal Pathology

Spring. 4(3-3) Graduate status and approval of department. Interdepartmental with the Department of Pathology.

Macro and microscopic studies on the diseases of laboratory animals, with special emphasis on naturally-occurring diseases which might interfere with the interpretation of experimental results.

LANDSCAPE ARCHITECTURE

See Urban Planning and Landscape Architecture

LARGE ANIMAL SURGERY AND MEDICINE* LSM

College of Veterinary Medicine

412. Livestock Hygiene and Disease Control

(VSM 412.) Winter. 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.

*Established November 1, 1968. Formerly part of the Department of Veterinary Surgery and Medicine.

488. The Impact of Animal Resource Management Upon the World's Developing Nations

Winter. 3(4-0)

For course description, see Interdisciplinary Courses.

505. Large Animal Clinic I

Fall, Winter, Spring, Summer. 3(0-10)
Eighth-term or ninth-term Veterinary Medicine students.

Clinical instruction and experience in diagnosis, patient care, medication, surgery, disease prevention, and herd health.

521. Large Animal Surgery and Medicine I

(VSM 521.) Fall, Spring. 8(7-3)
Seventh-term Veterinary Medicine students.

Occurrence, etiology, symptomatology, diagnosis, prognosis, treatment and prevention of diseases of reproductive, digestive, and respiratory systems. Demonstrations of laboratory experience in basic clinical skills including restraint, diagnosis, medication, and surgery.

522. Large Animal Surgery and Medicine II

(VSM 522.) Winter, Summer. 6(5-3)

521.

Occurrence, diagnosis and treatment of surgical diseases of large animals. Discussion of diseases of cardiovascular, hematopoietic, urinary, nervous and integumentary systems. Demonstrations and laboratory experience in large animal surgery techniques.

523. Large Animal Surgery and Medicine III

(VSM 523.) Fall, Spring. 7(7-0)

522.

Occurrence, diagnosis and treatment of surgical and reproductive diseases. Includes radiology and diseases of locomotion.

531. Meat Hygiene

(VSM 531.) Fall, Spring. 2(2-0)
Ninth-term Veterinary Medicine students.

Judging fitness of meat for human consumption based on a knowledge of bacteriology, parasitology and pathology. Organization and operation of meat inspection programs. Field trip required.

605. Large Animal Clinic II

(VSM 605.) Fall, Winter, Spring, Summer. 12(0-36) 505.

Advanced clinical instruction and experience in diagnosis, patient care, medication, surgery, disease prevention, and herd health. Includes handling of clinic patients under direct supervision of staff veterinarians and ambulatory clinic.

624. Large Animal Surgery and Medicine IV

(VSM 624.) Winter, Summer. 4(4-0)

523.

Etiology, pathogenesis, epidemiology, pathological changes, differential diagnosis, prevention, control and treatment of specific infectious diseases of large animals.

630. Jurisprudence, Ethics and Business Management

(VSM 630.) Fall, Spring. 5(5-0)
Eleventh-term Veterinary Medicine students.

Legal rights, responsibilities and liabilities of practicing veterinarians. Management and business principles of veterinary practice.

809. Problems in Large Animal Surgery

(VSM 809.) Fall, Winter, Spring, Summer. Variable credit.