

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 recognition, transcription and reproduction of sound, rhythm, tone and intonation to prepare students to transcribe any language he may study. Phonemic drills will be possible for the language students to study in the following term.

142B. Studies in Language and Culture
Winter. 1 credit. 142A concurrently.
Independent study in language and culture.

389A. Interdisciplinary Special Topics
Fall, Winter, Spring. 3(3-0) or 4(3-0)
May re-enroll for a maximum of 8 credits if different topic is taken.
Special studies relating material from several disciplines.

389B. Interdisciplinary Special Topics
Fall, Winter, Spring. 1 to 4 credits.
May re-enroll for a maximum of 8 credits.
Independent study of topics relating material from several disciplines.

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 approval of school.
Review of the history of American labor and its evolving structure and an analysis of current problems facing unions.

803. Seminar in Industrial Relations
For course description, see *Interdisciplinary Courses*.

809. Labor Markets
Fall, Winter. 4(4-0) Approval of school.
Review of labor market structures and processes; forces affecting work and wages; and public policy on manpower development and utilization and on income maintenance.

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 programs against poverty and insecurity. Integration with manpower programs. Relation between public and private programs.

815. Labor Force Behavior
Spring. 4(4-0) EC 457 Interdepartmental with the Department of Economics.
Theoretical and empirical analysis of factors affecting labor force participation rates, unemployment levels, employment distribution, hours of work, and labor mobility. Concepts and measurement methods.

817. Methods of Program Evaluation
Winter. 4(3-0) Approval of school.
Principles of benefit-cost analysis, cost-effectiveness analysis, and other methods of evaluation applicable to human resource programs.

823. Organizational Behavior in Labor and Industrial Relations
Fall. 4(4-0) Approval of school. Interdepartmental 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 relations and employee utilization in private and public organizations.

825. Employee Compensation and Incentives
Spring. 4(3-0) MGT 810 or approval of school.
Theory and practice of payment systems in private and public employment. Compensation and motivation. Job evaluation and performance review. Incentive plans, executive compensation, and fringe benefits.

826. Organizational Development
Spring. 4(4-0) Approval of school.
Application of general systems and organizational behavior theories to the problems of organizational change and development in labor and industrial relations, with particular emphasis on the roles of leadership and change agents.

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 of countries in 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.

863. Law of Labor-Management Relations
Winter, Spring. 4(4-0) Approval of school.
The National Labor Relations Act as amended: rights to organize and undertake concerted activity; legal framework of contract negotiations; representation of bargaining unit members; union member rights; proposed statutory changes.

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. Seminar in Trade Union Behavior
Fall. 4(4-0) 801 or approval of school.
Research and policy analysis of selected problems of trade union behavior.

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
 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

501. Introduction to Veterinary Medicine I
 Summer. 2(2-0) Admission to professional veterinary program. Interdepartmental with and administered by the Small Animal Surgery and Medicine Department.

Species and breed identification, predisposition for specific diseases, basic care and feeding, restraint and handling of small domestic animals, unusual pet, and laboratory animals.

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
 Winter. 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.

488. The Impact of Animal Resource Management Upon the World's Developing Nations
 Winter. 3(4-0)

For course description, see Interdisciplinary Courses.

502. Introduction to Veterinary Medicine II
 Spring. 4(3-3) Admission to the professional veterinary program. Interdepartmental with and administered by the Small Animal Surgery and Medicine Department.

Anesthetic principles, agents, and techniques. Basic surgical principles, including aseptic technique, hemostasis, wound healing, suturing and suturing materials. Fundamentals of radiology.

503. Introduction to Veterinary Medicine III
 Spring. 4(3-3) Admission to professional veterinary program. Interdepartmental with the Department of Small Animal Surgery and Medicine.

Physical and systemic examination of the various domestic and laboratory species. Common restraint procedures, clinical skills, diagnostics and an approach to clients are included.

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. Veterinary Economics and Practice Management
 (VSM 630.) Fall, Spring. 3(3-0)
 Veterinary medicine students.
 Management and business principles of veterinary medical practice.

809. Problems in Large Animal Surgery
 (VSM 809.) Fall, Winter, Spring, Summer. Variable credit.

811. Problems in Large Animal Medicine
 (VSM 811.) Fall, Winter, Spring, Summer. Variable credit.

813. Seminar
 (VSM 813.) Fall, Winter, Spring. 1 credit.

823. Special Surgery
 (VSM 823.) Spring. 3(1-6) May re-enroll for a maximum of 6 credits. Approval of department.
 Surgical techniques and tissue reactions follow-

899. Research
 (VSM 899.) Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 18 credits. Approval of department.
 Research on thesis problems.

LATIN

See Romance 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 re-enroll for a maximum of 18 credits. Approval of department.
 Work in areas outside regular course offerings.

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