

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.

### 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 student'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 insight.

**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.

### Other JMC Courses

**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.

**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 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.

**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. Twice 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 profes-  
sional 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 ani-  
mals, unusual pet, and laboratory animals.

**824. Laboratory Animal Medicine**  
(VSM 824.) Fall, Spring. 3(2-3)  
Completion of ninth-term professional Veteri-  
nary Medicine program.

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

**825. Comparative Medical  
Experimentation**  
Winter. 2(1-3) Graduate status, B.S.  
in biological sciences and approval of depart-  
ment.  
Critical analysis of animal experimentation re-  
ported 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 inter-  
fere 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) Jun-  
iors; 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 Interdisci-  
plinary Courses.

**502. Introduction to Veterinary  
Medicine II**  
Spring. 4(3-3) Admission  
to the professional veterinary program. Inter-  
departmental with and administered by the  
Small Animal Surgery and Medicine Depart-  
ment.  
Anesthetic principles, agents, and techniques.  
Basic surgical principles, including aseptic  
technic, hemostasis, wound healing, suturing  
and suturing materials. Fundamentals of radi-  
ology.

**503. Introduction to Veterinary  
Medicine III**  
Spring. 4(3-3) Admission to profes-  
sional veterinary program. Interdepartmental  
with the Department of Small Animal Surgery  
and Medicine.  
Physical and systemic examination of the vari-  
ous 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 pre-  
vention, 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 sys-  
tems. Demonstrations of laboratory experience  
in basic clinical skills including restraint, diag-  
nosis, 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 dis-  
eases of cardiovascular, hematopoietic, urinary,  
nervous and integumentary systems. Demonstra-  
tions 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, para-  
sitology and pathology. Organization and oper-  
ation 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, dis-  
ease prevention, and herd health. Includes  
handling of clinic patients under direct super-  
vision of staff veterinarians and ambulatory  
clinic.

**624. Large Animal Surgery and  
Medicine IV**  
(VSM 624.) Winter, Summer. 4(4-0)  
523.

Etiology, pathogenesis, epidemiology, pathologi-  
cal changes, differential diagnosis, prevention,  
control and treatment of specific infectious dis-  
eases of large animals.

**630. Veterinary Economics and  
Practice Management**  
(VSM 630.) Fall, Spring. 3(3-0)  
Veterinary medicine students.  
Management and business principles of veteri-  
nary 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 de-  
partment.  
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.