497.  Senior Project  
Fall, Winter, Spring.  3 to 5 credits.  
Seniors.  
Project stressing integration and synthesis of a student's field of concentration under the guidance of the student's adviser.

498.  Senior Thesis  
Fall, Winter, Spring.  3 to 5 credits.  
Seniors.  
Thesis stressing integration and synthesis of a student's field of concentration under the supervision of a faculty member.

499.  Senior Seminar  
Fall, Winter, Spring.  3 credits.  
Seniors.  
Seminar on selected topics, stressing synthesis and integration of student's area of concentration.

LABOR AND INDUSTRIAL RELATIONS  
LIR

College of Social Science

501.  Labor in Twentieth Century America  
Fall, Winter.  4(3-0).  Approval of school.  

1DC.  Seminar in Industrial Relations  
For course description, see Interdisciplinary Courses.

509.  Labor Markets  
Fall, Winter.  4(4-0).  Approval of school.  
Review of labor market structure 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).  Approval of school.  
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, with particular emphasis on welfare and unemployment programs.  Relationship between public and private programs.

815.  Labor Force Behavior  
Spring.  4(4-0).  LIR 809, EC 457 or approval of school.  
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.

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

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.

832.  Data Sources in Labor and Industrial Relations  
Fall, Winter, Spring.  3(3-0)  One undergraduate statistics course and approval of school.  
Review and evaluation of published data on labor and industrial relations.  Methods of presentation, report writing.  Index numbers, time series decomposition.

834.  Survey Methods in Labor and Industrial Relations  
Fall, Spring.  3 credits.  
One undergraduate statistics course and approval of school.  
Design and conduct of data collection operations.  Sample design and sampling procedures.  Design of questionnaires and interview schedules.  Field operations.  Data editing and coding.

491H.  Perspectives in the Social Sciences and Humanities  
Fall, Winter, Spring.  2 to 6 credits.  May reenroll for a maximum of 12 credits if different topics are taken.  Juniors, approval of Honors College, or approval of instructor.  Interdepartmental with the colleges of Arts and Letters and Social Science and administered by the College of Arts and Letters.

An integration of subject matter and methodologies of several disciplines as they are relevant to particular topic areas.

841.  Collective Bargaining in Public Employment  
Spring, Summer.  4(3-0).  LIR 858, LIR 863, 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).  LIR 801, LIR 858, LIR 863, or approval of school.  
Comparative analysis of industrial relations systems of countries in various stages of economic development.

857.  Wage Theory  
Fall.  3(3-0).  EC 320, EC 324, or approval of school.  
Interdepartmental with and administered by the Department of Economics.  
Advanced analysis of theories of wage determination; labor market research; economic effects of collective bargaining upon the national wage structure; output, unemployment, distribution of national income, the price level, nature and effects of government wage policies.

858.  Industrial Relations  
Winter.  3(3-0).  EC 365, or approval of department.  Open both to graduate students in economics and related fields such as labor and industrial relations, psychology, sociology, anthropologies, political science, business, and history.  Interdepartmental with the Department of Economics.  
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; the rights to organize and undertake concerted activity; the collective bargaining process; representation of bargaining unit members; union member rights; proposed statutory changes.

865.  Grievance Administration and Arbitration  
Winter, Spring.  4(3-0).  LIR 858, LIR 863, or approval of school.  
Grievance procedure and arbitration as the terminal step in the grievance process.  Analysis of this industrial common law.

868.  Equal Employment Opportunity and Occupational Safety and Health Policy  
Spring.  4(4-0).  
Major emphasis on government policies to promote equal employment opportunity, their scope and impact on collective bargaining.  Attention also given to governmental policies to protect workers from substandard working conditions.

881.  Advanced Seminar in Labor and Industrial Relations  
Spring.  4(4-0).  May reenroll for a maximum of 6 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.
95. **Readings in Labor and Industrial Relations**

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

99. **Master's Thesis Research**

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

111. **Seminar in Manpower**

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

23. **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.

35. **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.

1DC. **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. 2(0-6) to 4(0-12) May reenroll for a maximum of 12 credits. Approval of department. Comprehensive problem-solving exploration of selected clinical diseases, either systems or species oriented, in large animals.

642. **Special Problems-Research**

Fall, Winter, Spring. 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.

560. **Equine Clerkship I**

Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 6 of the professional veterinary curriculum, approval of department. Concepts and supervised practice in equine medicine. Emphasis on diagnosis, prognosis, treatment and disease prevention.

562. **Equine Clerkship II**

Fall, Winter, Spring, Summer. 4 credits. LSM 650 and approval of department. Advanced, supervised equine medicine and surgery.

564. **Equine Clerkship III**

Fall, Winter, Spring, Summer. 4 credits. LSM 662 and approval of department. In-depth, supervised equine medicine and surgery.

566. **Large Animal Anesthesia Clerkship**

Fall, Winter, Spring, Summer. 4 credits. Satisfactory completion of term 8 of the professional veterinary curriculum, approval of department. Concepts and supervised practice in large animal anesthesiology.

568. **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 on diagnosis, prognosis, treatment and disease prevention.

568. **Ambulatory Clerkship II**

Fall, Winter, Spring, Summer. 4 credits. LSM 660, approval of department. Advanced, supervised ambulatory clinics.

570. **Food Animal Clerkship I**

Fall, Winter, Spring, Summer. 4 credits. LSM 650, approval of department. Concepts and supervised practice in food animal medicine. Emphasis on diagnosis, prognosis, treatment and disease prevention.

572. **Food Animal Clerkship II**

Fall, Winter, Spring, Summer. 4 credits. LSM 670, approval of department. Advanced, supervised food animal surgery and medicine.

574. **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.

599. **Problems in Large Animal Surgery**

Fall, Winter, Spring, Summer. Variable credit.

611. **Problems in Large Animal Medicine**

Fall, Winter, Spring, Summer. Variable credit.

613. **Seminar**

Fall, Winter, Spring. 1 credit.

299. **Special Projects**

Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 8 credits. Approval of department.

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.