822. General Practice Clerkship  
Supervised general practice.
860. Graduate Reading  
Supervised reading course for investigation of professional veterinary curriculum, approval of department. May reenroll for a maximum of 15 credits. Satisfactory completion of term required.
899. Master's Thesis Research  
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 12 credits. Satisfactory completion of term required.
971. Problems in Internal Medicine  
Fall, Winter, Spring, Summer. 4 credits. SSM 661, approval of department. Supervised internal medicine problems.
663. Ophthalmology Clerkship  
Supervised ophthalmology practice.
671. Problems in Clinical Ophthalmology  
Fall, Winter, Spring, Summer. 4 credits. SSM 663, approval of department. Supervised ophthalmology problems.
674. Problems in Orthopedic Surgery  
Fall, Winter, Spring, Summer. 4 credits. SSM 664, approval of department. Supervised orthopedic surgery problems.
899. Master's Thesis Research  
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 12 credits. Satisfactory completion of term required.
825. Advanced Anesthesiology  
Winter. 4 credits. Study recent advances in veterinary cardiology. Principles of drug action pertaining to anesthesiology will be discussed including respiratory and cardiovascular effects of inhalation and intravenous agents. Anesthetic techniques for various animal species will be presented.
826. Cardiology  
Fall. 3 credits. Study recent advances in veterinary cardiology. Includes electrocardiography, congenital and acquired diseases, cardiac catheterization and surgery.
899. Master's Thesis Research  

**RUSSIAN**
See German and Russian.

**SANITARY ENGINEERING**
See Civil and Sanitary Engineering.

**SMALL ANIMAL SURGERY AND MEDICINE**  
SSM  
College of Veterinary Medicine

**VETERINARY MANAGEMENT OF UNUSUAL ANIMALS**  
Spring. 2-2-4. Satisfactory completion of term 8 of the professional veterinary curriculum. Emphasis will be placed on husbandry, restraint, and anesthesia, diagnosis and treatment of common diseases.

**ANESTHESIOLOGY CLERKSHIP**  
Supervised anesthesiology practice.

**GENERAL PRACTICE CLERKSHIP**  
Supervised general practice.
202. Power in America (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 201, or S S 211, or S S 221, or S S 241 recommended; S S 201 preferred.  
Problems of regulating and controlling human behavior. Emphasis placed on major economic and political institutions involved in social control. This includes problems of human wants and needs.

203. American and World Problems (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 202, S S 212, S S 222 or S S 242 recommended; S S 202 preferred.  
The international scene with the focus on problems of economic development, conflict among the nation-states and attempts at conflict control.

211. The Emergence of Man (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
The bio-social evolution of man. The theories and empirical findings of the behavioral sciences are brought to bear upon the nature of man.

212. Coping with Changing Institutions in Modern Society (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 202, S S 211, S S 221 or S S 241 recommended; S S 202 preferred.  
The meaning of deviant behavior and personal disorganization and their impact on society. Selected problems examined in depth.

213. Casualties of Contemporary Society (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 202, S S 212, S S 222 or S S 242 recommended; S S 212 preferred.  
The meaning of deviant behavior and personal disorganization and their impact on society. Selected problems examined in depth.

221. The Individual and Metropolitan Society (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
Factors and directions in metropolitan change. Impacts on life styles and life strategies of individuals and groups. Challenges to traditional family, educational and community patterns.

222. Economics, Politics and the Individual in the Metropolis (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 201, S S 211, S S 221, or S S 241 recommended; S S 221 preferred.  
Patterns of economic and political participation: the impact on the individual. Employment security and job satisfaction, economic rewards, political power and civil rights. Intermeshing of economic and political activities.

223. World Urbanization: Cultures and Common Issues (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 202, S S 212, S S 222 or S S 242 recommended; S S 222 preferred.  
The unity of urban life patterns and the emergence of modern-day urban problems. Cultural variations in approach to issues-comparative political, social, economic, ideological systems.

241. Cultures in Crisis (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
The nature and sources of social cohesion. Approaches to the modernization of traditional societies. Problems and alternative strategies of nation building.

SOCIAL SCIENCE  
(COLLEGE OF)

242. Freedom and Justice (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 201, S S 211, S S 221 or S S 241 recommended; S S 241 preferred.  
Ideologies of change in the modern world—sources, appeals, problems. Issues of social justice and individual freedom.

243. War and Morality (S)  
Fall, Winter, Spring, Summer. 4(4-0)  
S S 202, S S 212, S S 222 or S S 242 recommended; S S 242 preferred.  
Social tensions and revolutionary change. The causes of war: international conflict and the great powers. Strategies for peace. Man's conscience versus state policies.

292. Selected Topics  
(U C 292) Fall, Winter, Spring. 3 to 5 credits. May reenroll for a maximum of 8 credits if different topic is chosen. Interdisciplinary study of topics in the social sciences.

300. Supervised Individual Study  
Fall, Winter, Spring, Summer. 2 to 4 credits. 8 credits completed in general education social science, approval of Department. Selected students requesting individual study of interdisciplinary problems will work under supervision of University College professors. Variable elective credit will be determined when the student secures instructor, adviser, and department approval.

IDC. Modernization: The Middle East  
For course description, see Interdisciplinary Courses.

IDC. Refugees, Hostages, Exiles  
For course description, see Interdisciplinary Courses.

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 topic is taken. Juniors, approval of Honors College, or approval of instructor. Interdepartmental with Justin Morrill Inter-College Program and the College of Arts and Letters. 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.

492. Integrative Studies  
(U C 492) Fall, Winter, Spring. 3 to 5 credits. May reenroll for a maximum of 10 credits if different topics are taken. Juniors. Topics which require an integration within or among the social sciences.

495. Foreign Area Field Study  
Fall, Winter, Spring, Summer. 3 to 15 credits. May reenroll for a maximum of 24 credits. Juniors and 12 credits in social science. Study in a variety of foreign settings under the guidance of an advisor, such as American University Field Study Centers in Rome and Singapore.

810. Introduction to Linear System Theory  
Fall. 3(3-0) MTH 214. Interdepartmental with and administered by Systems Science.  
A first course in system theory for students from a range of disciplines. Mathematical representation of system variables, transform and state space method of analysis, introduction to control theory, applications to physical, economic and social systems.

811. System Methodology and Simulation  
Winter. 3(3-0) SYS 810, STT 441. Interdepartmental with and administered by Systems Science.  
Problem definition, design of abstract models for system design and control, simulation of systems described by differential and difference equations, generation of random variables, simulation of discrete object stochastic systems, simulation languages, applications to physical, economic and social systems.

813. System Project  
Spring. 3(1-6) SYS 811. Interdepartmental with and administered by Systems Science.  
Individual or team application of simulation methods to system design and/or management.

999. Doctoral Dissertation Research  
Fall, Winter, Spring. Variable credit. Approval of college.

SOCIAL WORK  
SW

College of Social Science

205. Contemporary Social Work  
Fall, Winter, Spring. 3(3-0)  
Role of the social worker in relation to social issues and human needs; social service programs, structures and functions of public and voluntary agencies in a changing society.

228. Marriage  
Fall, Winter, Spring. 4(4-0) Students may not receive credit in both SW 228 and FCS 145. Examination of marriage and the family, from a social work point of view. Consideration of such areas of adjustment as emotional, physical, social, financial, religious and legal.

322. Child Welfare  
Winter. Spring. 3(3-0) Juniors.  
Child welfare movement and contemporary children's agencies and their services. Programs for improving home and for substitute care, safeguarding health, employment protection, delinquency prevention, and other needs of children and youth.