

**512. Small Animal Surgery and Medicine II**

Winter, Summer. 7(6-3) 511.

Diseases of musculoskeletal, digestive and respiratory systems. Includes radiology and surgical laboratory with demonstrations.

**513. Small Animal Surgery and Medicine III**

Fall, Spring. 7(7-0) 512.

Diseases of urogenital, endocrine, cardiovascular, hematopoietic and integumentary systems and specific infectious diseases. Includes radiographic and surgical techniques.

**601. Small Animal Clinical Surgery**

Fall, Winter, Spring, Summer. 3(0-9)

Veterinary Medicine students in terms 9, 10, 11 electing Large Animal or Non-Practice option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation will be limited to general surgery.

**602. Small Animal Clinical Surgery**

Fall, Winter, Spring, Summer. 6(0-18)

Veterinary Medicine students in terms 9, 10, 11 electing Mixed-Practice option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation includes general surgery and selected specialty sections.

**603. Small Animal Clinical Surgery**

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

Veterinary Medicine students in terms 9, 10, 11 electing Small Animal option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation includes general surgery and all specialty sections.

**604. Small Animal Clinic II**

Fall, Winter, Spring, Summer. 12(0-36) 504.

Concepts and practices of clinical veterinary medicine. Rotation through hospital services. Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of staff veterinarians.

**608. Special Problems in Clinical Surgery**

Fall, Winter, Spring, Summer. 3(0-9)

to 12(0-36) May re-enroll for a maximum of 12 credits. 601 or 602 or 603 and approval of department.

Advanced undergraduate training in clinical surgery under direct supervision of faculty and staff.

**611. Small Animal Clinical Medicine**

Fall, Winter, Spring, Summer. 3(0-9)

Veterinary Medicine students in terms 9, 10, 11 electing Large Animal or Non-Practice option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation will be limited to general medicine.

**612. Small Animal Clinical Medicine**

Fall, Winter, Spring, Summer. 6(0-18)

Veterinary Medicine students in terms 9, 10, 11 electing Mixed-Practice option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation includes general medicine and selected specialty sections.

**613. Small Animal Clinical Medicine**

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

Veterinary Medicine students in terms 9, 10, 11 electing Small Animal option and approval of department.

Diagnosis, prognosis, treatment, and prevention of disease through handling of clinic patients under direct supervision of faculty and staff. Clinical rotation includes general medicine and all specialty sections.

**614. Small Animal Surgery and Medicine IV**

Winter, Summer. 3(3-0) Sixth-term

Veterinary Medicine students.

Occurrence, etiology, symptomatology, diagnosis, treatment and prevention of diseases of nervous system, organs of special sense, physical and chemical agents and neoplasia.

**618. Special Problems in Clinical Medicine**

Fall, Winter, Spring, Summer. 3(0-9)

to 12(0-36) May re-enroll for a maximum of 12 credits. 611 or 612 or 613 and approval of department.

Advanced undergraduate training in clinical medicine under direct supervision of faculty and staff.

**620. Small Animal Focal Problems**

Fall, Winter, Spring, Summer. 2(0-6)

to 4(0-12) May re-enroll for a maximum of 12 credits. Concurrent enrollment or previous completion of 601, 611; or 602, 612; or 603, 613; and approval of department.

Case oriented problem solving through faculty-student group discussions and seminars.

**651. Clinico-Pathologic Conference**

Fall, Winter, Spring, Summer. 0 or 1(1-0)

May re-enroll for a maximum of 2 credits. Professional Veterinary Medicine students.

Clinico-pathologic conference on selected clinical cases. Students will be required to enroll each term (first nine terms) without credit and in terms ten and eleven for 1 credit each term.

**808. Problems in Small Animal Surgery**

Fall, Winter, Spring, Summer. Variable credit.

Advanced undergraduate training in clinical surgery under direct supervision of faculty and staff.

**810. Problems in Small Animal Medicine**

Fall, Winter, Spring, Summer. Variable credit.

Advanced undergraduate training in clinical medicine under direct supervision of faculty and staff.

**813. Seminar**

Fall, Winter, Spring. 1 credit.

**822. Bone and Joint Surgery**

Winter. 3(2-4) Approval of department.

Fundamentals, theory and practice covering the various conditions and surgery of bones and joints.

**823. Special Surgery**

Spring. 3(1-6) May re-enroll for a maximum of 6 credits. Approval of department.

Surgical technique and tissue reactions following surgery in small animals.

**825. Advanced Anesthesiology**

Winter. 4(2-3) Approval of department.

Principles of drug action pertaining to anesthetics 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(2-4) Approval of department.

Study recent advances in veterinary cardiology. Includes electrocardiology, congenital and acquired diseases, cardiac catheterization and surgery.

**899. Research**

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 18 credits. Approval of department.

Research on thesis problems.

**SOCIAL SCIENCE**

**S S**

**University College**

To satisfy the University General Education requirement, a student must take one course in each of the following groups. Additional courses may be taken for elective credit.

1. 201, 211, 221, 241
2. 202, 212, 222, 242
3. 203, 213, 223, 243

**100. Personal Decision Making and Public Policy**

Spring. 4(4-0)

Public policy and decision-making processes. Effects of policy on the quality of life. Development of descriptive and prescriptive social science skills. Improving the policy-making process.

**201. Americans and Their Values**

(231A.) Fall, Winter, Spring, Summer.

4(4-0)

Processes by which individuals are socialized to the prevailing patterns of behavior by such agencies as family, school, peer groups, mass media and church. Part played by each in the development of personality.

**202. Power in America**

(232A.) Fall, Winter, Spring, Summer.

4(4-0) 201 preferred; or 211, 221, or 241.

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. A Peaceful World?**

(233A.) Fall, Winter, Spring, Summer.

4(4-0) 202 preferred; or 212 or 222, or 242.

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**

(231B.) 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.

**Descriptions — Social Science  
of  
Courses**

- 212. Coping with Changing Institutions in Modern Society**  
(232B.) Fall, Winter, Spring, Summer.  
4(4-0) 211 preferred; or 201, 221, or 241.

Individuals and the changing institutional framework of modern society. Emphasis on socialization enabling personality systems in different cultural settings to cope with life in the future.

- 213. Casualties of Contemporary Society**  
(233B.) Fall, Winter, Spring, Summer.  
4(4-0) 212 preferred; or 202, 222, or 242.

The meaning of deviant behavior and personal disorganization and their impact on society. Selected problems examined in depth.

- IDC. The Politics of Ecology**  
For course description, see Interdisciplinary Courses.

- 221. The Changing American Metropolis: Ecology of the Urban Community**  
(231C.) Fall, Winter, Spring, Summer.  
4(4-0)

Factors and directions in urban change. Impacts on life styles and life strategies of urban groups. Challenges to traditional family, educational, and community patterns.

- 222. Work and Politics in Urban America**  
(232C.) Fall, Winter, Spring, Summer.  
4(4-0) 221 preferred; or 201, 211, 241.

Changing patterns of economic and political participation. Issues of employment security and job satisfaction. Distribution of economic rewards, political power, and civil rights. Inter-meshing of economic and political activities.

- 223. The World's Cities: An Urban Culture and Common Problems**  
(233C.) Fall, Winter, Spring, Summer.  
4(4-0) 222 preferred; or 202, 212, or 242.

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. Modernization: Political and Social**  
(231D.) 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.

- 242. Modern Ideologies: Justifications of Political and Economic Power**  
(232D.) Fall, Winter, Spring, Summer.  
4(4-0) 241 preferred; or 201, 211 or 221.

Ideologies of change in the modern world—sources, appeals, problems. Issues of social justice and individual freedom.

- 243. Revolutionary Change and International Conflict**  
(233D.) Fall, Winter, Spring, Summer,  
4(4-0) 242 preferred; or 202, 212, or 222.

Social tensions and revolutionary change. The causes of war: international conflict and the great powers. Strategies for peace. Man's conscience versus state policies.

- 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: India and Japan**  
For course description, see Interdisciplinary Courses.

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

- IDC. Far East: Contemporary Issues and Problems**  
For course description, see Interdisciplinary Courses.

- IDC. Refugees, Displaced Persons, Hostages, Exiles**  
For course description, see Interdisciplinary Courses.

**SOCIAL SCIENCE SSC  
(COLLEGE OF)**

- 210. Methods of Social Science I**  
Fall, Winter, Spring, Summer. 4(4-0)  
Sophomores.

Characteristics of social science theory and method. Logical and practical aspects of data collection; standard techniques of investigation in the social sciences.

- 211. Methods of Social Science II**  
Fall, Winter, Spring, Summer. 4(4-0)  
210.

Principles of measurement and scaling. Types of variables. Techniques and problems of sampling. Research design. Role of explanation and of value judgments in social science.

- IDC. Human Adjustment to Environment**  
For course description see Interdisciplinary Courses.

- 450H. Perspectives in Social Science**  
(390H.) Fall, Winter, Spring. 4(4-0)  
Juniors, approval of Honors College. Preference given to majors in Social Science and professional schools of the College of Social Science.

Seminars in selected topics in areas of knowledge represented by the social science disciplines and allied professional fields.

- 470. Selected Topics in Social Science**  
Winter, Spring. 4(4-0) May re-enroll for a maximum of 8 credits. 18 credits in Social Science.

An interdisciplinary investigation of major theoretical and applied topics in the social sciences, including computer utilization in social science research, and interdisciplinary approaches to contemporary problems. Topics will vary from term to term.

- 480. Contemporary Social Problems in the United States**  
Fall, Winter. 4(4-0) May re-enroll for a maximum of 8 credits. 18 credits in Social Science.

Interdisciplinary investigation of selected major social problems of the United States, such as urban redevelopment, environmental control, welfare reform, crime and society, the future of American society.

- 482. Contemporary Social Problems Abroad**  
Spring. 4(4-0) 18 credits in social science.

Seminars dealing with major theoretical topics and social problems concerning foreign areas, such as economic and educational development, population explosions, war crises and peace-keeping. A multi-disciplinary approach involving specialists from the social science disciplines and allied professional fields.

- 490. Individual Research Projects**

Fall, Winter, Spring. 4 credits. May re-enroll for a maximum of 8 credits. Multidisciplinary social science majors and 12 credits in social sciences—agricultural economics, anthropology, economics, geography, political science, psychology and sociology.

Individually supervised study and research on a topic using a multidisciplinary approach.

- 495. Foreign Area Field Study**  
Fall, Winter, Spring, Summer. 3 to 15 credits. May re-enroll 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 adviser, such as American University Field Study Centers in Rome and Singapore.

- 810. Introduction to Linear System Theory**

(812.) Fall. 3(3-0) MTH 214. Interdepartmental with the Computer Science Department and Systems Science 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) 810, STT 441. Interdepartmental with the Computer Science Department and Systems Science 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) 811. Interdepartmental with the Computer Science Department and Systems Science and administered by Systems Science.

Individual or team application of simulation methods to system design and/or management.

- 999. Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of college.