860. **Graduate Reading**  
Fall, Winter, Spring, Summer. 1 to 5 credits. May re-enroll for a maximum of 15 credits. Approval of department.
- Supervised reading course for investigation of special fields.

899. **Research**  
Fall, Winter, Spring, Summer. Variable credits. Approval of department.
- A particular writer, a major work, or a limited theme is chosen for intensive analysis. The topic and the professor of the course change each term.

981. **Seminar in Hispanic Literature**  
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 16 credits.
- A particular writer, a major work, or a limited theme is chosen for intensive analysis. The topic and the professor of the course change each term.

999. **Research**  
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 36 credits.

**RUSSIAN**
- See German and Russian.

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

**SMALL ANIMAL SURGERY AND MEDICINE**

**SM**

**College of Veterinary Medicine**

501. **Introduction to Veterinary Medicine I**  
Summer. 2(2-0) Admission to professional veterinary program. Interdepartmental with Center for Laboratory Animal Resources. Species and breed identification. Origin and disposition for specific diseases. Basic care and feeding. Restraint and handling of small domestic animals, unusual pets, and laboratory animals.

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

504. **Small Animal Clinic I**  
Fall, Winter, Spring, Summer. 3(0-10)
- Eighth-term or ninth-term Veterinary Medicine students.

Concepts and principles of clinical veterinary medicine. Rotation through hospital services including outpatient clinic, medicine, surgery, radiology, clinical pathology, and pharmacy.

511. **Small Animal Surgery and Medicine I**  
(VSM 511.) Fall, Spring. 8(7-3)  
- Seventh-term Veterinary Medicine students.

Basic surgery. Laboratory and lectures with television demonstrations. Anesthesiology, basic radiology, small animal husbandry, and diseases of the upper digestive system.

512. **Small Animal Surgery and Medicine II**  
(VSM 512.) Winter, Summer. 7(6-3)
- Diseases of musculoskeletal, digestive and respiratory systems. Includes radiology and surgical laboratory with demonstrations.

513. **Small Animal Surgery and Medicine III**  
(VSM 513.) Fall Spring. 7(7-0) 512.
- Diseases of urogenital, endocrine, cardiovascular, hematopoietic and integumentary systems and specific infectious diseases. Includes radiographic and surgical techniques.

604. **Small Animal Clinic II**  
(VSM 604.) Fall, Winter, Spring.
- 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.

614. **Small Animal Surgery and Medicine IV**  
(VSM 614.) Winter, Summer. 3(3-0)
- Occurrence, etiology, symptomatology, diagnosis, treatment and prevention of diseases of nervous system, organs of special sense, physical and chemical agents and neoplasia.

651. **Clinico-Pathologic Conference**  
(VSM 651.) Fall, Winter, Spring.
- Students will be required to enroll each term (first nine terms) without credit and in terms ten and eleven for 1 credit each term.

805. **Problems in Small Animal Surgery**  
(VSM 608.) Fall, Winter, Spring.
- Students may earn credit in only one of the courses in each of the following three groups:
  1. 201, 211, 221, 241
  2. 202, 212, 222, 242
  3. 203, 213, 223, 243

810. **Problems in Small Animal Medicine**  
(VSM 610.) Fall, Winter, Spring.
- 3. 201, 211, 221, 241

813. **Seminar**  
(VSM 613.) Fall, Winter, Spring. 1 credit.

822. **Bone and Joint Surgery**  
(VSM 822.) Winter. 3(3-0) Approval of department.
- Fundamentals of anatomy and practice covering the various conditions and surgery of bones and joints.

823. **Special Surgery**  
(VSM 832.) 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**  
(VSM 825.) Winter. 4(3-2) Approval of department.
- Principles of drug action pertaining to anesthesia will be discussed including respiratory and cardiovascular effects of inhalation and intravenous agents. Anesthetic techniques for various animal species will be presented.

826. **Cardiology**  
(VSM 826.) Fall. 3(2-4) Approval of department.
- Study recent advances in veterinary cardiology. Includes electrocardiography, congenital and acquired diseases, cardiac catheterization and surgery.

833. **Radiology**  
(VSM 833.) Spring. 3(3-0) Approval of department.
- Advanced Roentgen diagnosis, with particular emphasis on early detection of diseases of bone. Problem studies concurrent with course.

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

**SOCIAL SCIENCE**

**University College**

Students may earn credit in only one of the courses in each of the following three groups:

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

821. **Americans and Their Values**  
(231A.) Fall, Winter, Spring, Summer.
- A Peaceful World?
  (233A.) Fall, Winter, Spring, Summer.
  4(4-0) 202 preferred; or 211, 221, or 243.

202. **Power in America**  
(232A.) Fall, Winter, Spring, Summer.
- 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.
- 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**  
(331B.) Fall. 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**  
(239B.) Winter. 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.