421. Seminar on Man, "The Human Organism"
Fall, Winter, Spring, Summer. 3(0-0)
Approval of department.
The importance of new discoveries in biology for our understanding of the human organism, with emphasis from the fields of genetics, molecular biology, behavior, developmental biology, physiology, and ecology.

499. Research
Fall, Winter, Spring. 2 to 4 credits. May re-enroll for a maximum of 12 credits. Approval of director of biological science program and student's advisor. Undergraduates are invited on an individual basis to research laboratories of faculty in biological departments of the college. After three terms of research, a presentation in thesis form is produced and defended.

800. Problems in Biological Science
Fall, Winter, Spring. Variable credit. B.S. degree in biological science.

801. Problems in Biological Science
Fall, Winter, Spring. Variable credit. M.S. degree in biological science or equivalent. Research in some phase of biological science, data to form the basis for the thesis required for the doctoral degree in biological science.

802. Introduction to Biophysics
Spring. 3(5-0) PHY 250, MTH 113, 1 year organic chemistry and 1 year biology.

804. Experimental Biophysics
Fall of odd-numbered years. 3 credits. Approval of department. Neuro-electric properties of cells, organ and animals, and methods of processing information in humans.

805. Experimental Biophysics
Winter of even-numbered years. 3 credits. Approval of department. Electrical and physical properties of significant biological molecules and structures.

806. Experimental Biophysics
Spring of even-numbered years. 3 credits. Approval of department. Interaction of protons and high energy particles with biological molecules and structures.

521. Molecular Biophysics
Fall of odd-numbered years. 5(3-4)

820. Resource Ecology and Man
For course description, see Interdisciplinary Courses.

822. Charge Transport and Solid State Processes
Winter of even-numbered years. 4(3-2)
Approval of department. Fundamental electrical properties, dielectric properties and photoconductivity effects and their relevance to the biological functioning of these molecules.

833. Radiation Biophysics
Spring of even-numbered years. 3(2-2)
Approval of department. Effects of various types of ionizing radiation and ultraviolet and visible light on proteins, nucleic acids, viruses and plant and animal cells. Damage and repair mechanisms at the molecular level.

824. Membrane Biophysics
Fall of even-numbered years. 4(3-2)
Approval of department. Membrane Biophysics will cover interfacial phenomena in biology and chemistry; structure and function, theoretical and experimental models for biological membranes, membrane biochemistry. Labs will emphasize bimolecular lipid membranes (BLM) techniques.

825. Basic Neurobiology
Winter of odd-numbered years. 4(3-2)
Approval of department. A comparative survey of fundamental principles of nervous organization will be undertaken in lecture. Laboratory will emphasize examination of prepared neuroanatomical material and a demonstration of important neurophysiological phenomena.

826. Biophysics of Perception and Learning
Spring. 4(3-2) Approval of department. Lectures will consider sensory systems, including transduction, coding and information processing. Muscle contraction, muscle control, learned and unlearned behavior will be considered. Laboratory will include neural recording and behavioral observations.

890. Special Topics in Biophysics
Fall, Winter, Spring. Variable credit. May re-enroll for a maximum of 15 credits. Special topics within the five subdivisions of biophysics: structure, organization and function of biological phenomena, sensory perception, and psychophysics and biomechanics.

899. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department. Undergraduate research under one of our faculty.

904. Experimental Biophysics
Fall of odd-numbered years. 3 credits. Approval of department. Neuro-electric properties of cells, organ and animals, and methods of processing information in humans.

905. Experimental Biophysics
Winter of even-numbered years. 3 credits. Approval of department. Electrical and physical properties of significant biological molecules and structures.

906. Experimental Biophysics
Spring of even-numbered years. 3 credits. Approval of department. Interaction of protons and high energy particles with biological molecules and structures.

921. Molecular Biophysics
Fall of odd-numbered years. 5(3-4)