

### NSCI 115. Environmental Earth and Life Science (3)

Prerequisites: G.E. Foundation and Breadth Area B. Environmental problems related to population, energy and resource use, and pollution. Examines social and ethical issues along with technological and scientific factors. Independent work on case studies required. G.E. Integration IB.

### NSCI 116. Energy, Technology, and Society (3)

Not open to engineering students. Prerequisites: NSCI 1A and 1B. Examines the role that chemistry, physics, and technology play in our society. Designed especially for students planning careers as elementary school teachers.

### NSCI 120. Biotechnology and Its Impact on Society (3)

Prerequisites: G.E. Foundation and Breadth Area B; courses in biology and chemistry (high school or college) strongly recommended. Introduction to the tools of modern biotechnology including recombinant DNA, gene therapy, cloning, monoclonal antibodies, DNA fingerprinting, and the Polymerase Chain Reaction (PCR). Addresses applications of biotechnology to medicine, agriculture, the environment, and forensics, as well as their ethical implications. G.E. Integration IB.

### NSCI 121. Blood: Science, Art, and Folklore (3)

Prerequisites: G.E. Foundation and Breadth Area B; courses in biology and chemistry (high school or college) strongly recommended. Introduction to blood — its unique chemical, physical, and biological properties and its importance in medicine and forensics. Explores the significance of blood images for artistic and religious symbolism in both contemporary and historical cultures. G.E. Integration IB.

### NSCI 125. Revenge of the Killer Microbes (3)

Prerequisites: G.E. Foundation and Breadth Area B; courses in biology and chemistry (high school or college) strongly recommended. Introduction to the adversarial relationships between disease-causing microorganisms and human affairs, both currently and historically. Explores the unique defense and counter defense mechanisms that have developed in a variety of microbes and the human immune system. Addresses health care issues related to disease prevention and control. G.E. Integration IB.

### NSCI 131. Biological Bases of Mental Illness (4)

Prerequisites: G.E. Foundation and Breadth Area B. Biological mechanisms which underlie various neurological disorders. Nervous system structure and function will be presented as a basis for understanding pathology. Topics include multiple sclerosis, Alzheimer's disease, Parkinson's disease, language disorders, depression, obsessive-compulsive disorder, and schizophrenia. G.E. Integration IB.

### NSCI 140T. Topics in Natural Sciences (1-6; max total 12)

Prerequisite: permission of instructor. Interdisciplinary topics covering such subject matter areas as medical technology and ecology. (May include lab hours)

### NSCI 180. Practicum in Secondary Science Teaching (2)

Concurrent enrollment in EHD 155B required; for single subject life/physical science student teachers. Application of best science teaching research; practice; emphasis on reflection/discussion of current teaching, effective management of students/time, authentic assessments, laboratory/curriculum resources, sheltered techniques, student motivators.

### GRADUATE COURSE Natural Science (NSCI)

#### NSCI 240T. Topics in Natural Sciences (1-4; max total 8)

Prerequisite: permission of instructor. Interdisciplinary topics in the natural sciences at the graduate level covering such subjects as advanced techniques. Sample topics are *Radiation Techniques in Biology and the Physical Sciences* and *Recent Advances in Psychophysiology*. (May include lab hours)

### IN-SERVICE COURSE Natural Science (NSCI)

#### NSCI 380T. Topics in Natural Sciences (1-4; max total 6)

Studies in the natural sciences integrating topics from biology, chemistry, geology, mathematics, physics, and psychology.