

**NATURAL SCIENCE N S**

**University College**

Alternative approaches or tracks are offered on an optional basis all of which meet the course objectives of 191, 192, 193. These are described briefly below and are designated by letters which are used as part of the course number for registration. *No student may receive credit for more than one track within a course (191, 192, 193).*

**191. Natural Science**  
(183.) *Fall, Winter, Spring, Summer.*  
4(2-3)

- A. The Copernican Revolution, Atomic Theory and Relativity related to man's attempt to find a unified view of nature. Emphasis on effects of science and society on one another.
- B. Man's conception of nature and origin of the universe and social and philosophical implications of his changing views. Consideration of major controversies regarding man's place in the universe.
- C. Major revolutions in physical science illustrate growth and structure of theories. Special attention to effects on man's world view, the impact of science on society and of society on scientists.
- D. Development of physical sciences; emphasis on contemporary social and moral dilemmas created by scientific advancement; application of scientific criteria, and exploration of future potential of man.
- E. World views (man's view of himself, his universe and his place in the universe) are emphasized. The Copernican Revolution and Relativity illustrate how major changes in world view come about.
- H. Honors track. Man's attempt to find a unified view of nature. Effects of science and society on one another.

**192. Natural Science**  
(181.) *Fall, Winter, Spring, Summer.*  
4(2-3) *Four credits in a 191 track.*

- A. A major explanatory system in depth: the gene theory. Cell and reproduction as background and, once developed, its subsequent modification resulting from experiment and observation.
- B. Man's conception of life. Development of contemporary ideas on its nature and origin. Is scientific discovery an orderly, logical process? Is life only a matter of physics and chemistry?
- C. Cell and gene concepts illustrate development and nature of theories. The present biological revolution raises social problems of genetic surgery, creation of life, conquest of death, transplants, mind control, etc.
- D. Development of the concepts of life, reproduction and heredity. Examination of contemporary socio-scientific problems associated with these topics and application of scientific criteria to proposed solutions.
- H. Honors track. A major explanatory system in the gene theory. Development and modification of the theory.

**193. Natural Science**  
(182.) *Fall, Winter, Spring, Summer.*  
4(2-3) *Four credits in a 192 track.*

- A. Interaction of scientific and cultural thought leading to consideration of man's past, present and future. Interaction of scientific and cultural thought in the rise of geology and biology.
- B. Man's conception of his own nature and origins. Consideration of human biological and cultural evolution directed to investigation of the question: "What is the nature of man?"

- C. Recent geological research gives new view of earth. Concept of uniformity used to interpret this evidence and tie it to evolution. Evolutionary principles applied to problems of population, pollution and aggression.
- D. Development of the concept of evolution in science. Emphasis given to human evolution and application of evolutionary principles to contemporary socio-scientific problems.
- H. Honors track. Interaction of scientific and cultural thought leading to consideration of man's past, present and future.

**300. Supervised Individual Study**  
*Fall, Winter, Spring. 1 to 4 credits.*  
193; *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.

**NATURAL SCIENCE NSC  
(COLLEGE OF)**

**390H. The Human Organism**  
*Spring. 3(2-0) Juniors; approval of the Honors College.*

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.

**391H. Man's Universe**  
*Fall. 3(2-0) Juniors; approval of the Honors College.*

A creative review by senior faculty from astronomy, biochemistry, biophysics, geology, physics, and philosophy of the impact of recent space probes in developing modern concepts of the universe, the origin of the earth and life upon it.

**392H. Man's Earth**  
*Winter. 3(2-0) Juniors; approval of the Honors College.*

A summary by senior faculty from astronomy, anthropology, botany, geology, meteorology, and zoology of new theories and methods employed by current researchers to unravel the mysteries of the earth's origin, its interior, the forces developing the scenic surface features, and the evolution of life in its historical setting.

**800. Electron Microscopy of Biological Material**  
*Fall, Spring. 4(2-6) Graduate student in area of biology; or approval of college.*

Preparation of biological material for observation in the electron microscope; operation and principles of the electron microscope; associated electron microscope photography and dark room techniques.

**801. Special Problems in Electron Microscopy**

*Fall, Winter, Spring, Summer. 1 to 15 credits. Student in area of biology; or approval of college.*

**NURSING N E**

**College of Natural Science**

**205. Foundations of Nursing**  
*Fall. 3(2-3) Approval of school.*

Introduction to principles basic in identifying nursing problems and their use in sound planning of patient care.

**206. Foundations of Nursing**  
*Winter. 4(3-3) 205.*

Fundamental principles are presented as they relate to the care of the whole person; identification of problems confronting the individual in illness, methods of approach to the patient as a person whereby joint effort may contribute to improved well-being and/or recovery.

**207. Foundations of Nursing**  
*Spring. 7(5-6) 206.*

Continues building on concepts, using principles and knowledge introduced in the foregoing nursing courses. The laboratory now moves into the clinical area where practice in the nursing of patients becomes the focus of application of past learning and study.

**303. Medical and Surgical Nursing**  
*Fall, Spring. 12 credits. 207.*

Care of individuals receiving medical and surgical therapy with emphasis on integration of preventive, emotional and social aspects of illness, pathological relationships, and all forms of therapy and rehabilitation as they relate to medical and surgical nursing. Instruction and guided practice.

**304. Medical and Surgical Specialties**  
*Winter, Summer. 12 credits. 303.*

Continuation of 303.

**305. Obstetrical Nursing**  
*Fall, Winter, Spring, Summer. 12 credits. Approval of school.*

Nursing through pregnancy, parturition, and puerperium, including care of the new born. Instruction and guided practice.

**306. Nursing of Children**  
*Fall, Winter, Spring, Summer. 12 credits. 207; FCS 362.*

Normal growth and development from infancy through adolescence, care and health supervision of well children, treatment and rehabilitation of sick and handicapped children. Instruction and guided practice.

**400H. Honors Work**  
*Fall, Winter, Spring, Summer. 1 to 12 credits. Approval of school.*

**402. Psychiatric Nursing**  
*Fall, Winter, Spring. 12 credits. Approval of school.*

Principles of practice in nursing the mentally ill with emphasis on rehabilitation program. Fundamental bases of behavior reactions. Instruction and guided practice.

**403A. Introduction to Public Health for Nurses**  
*Fall, Winter, Spring. 4(4-0) Seniors.*

Principles of organization and administration, responsibility and function of public health including epidemiology, environmental health and biostatistics.

**403B. Public Health Nursing**  
*Fall, Winter, Spring. 8(2-24) Seniors.*

Objectives and responsibilities of public health nursing; basic principles underlying its practice with guided application in selected public health agencies.