300. Supervised Individual Study

Fall, Winter, Spring, Summer. 2 to 4 credits. May reenroll for a maximum of 12 credits. Approval of department.

Selected students requesting individual study of interdisciplinary problems. Variable elective credit will be determined when the student secures instructor, adviser, and department approval.

310. Science and Pseudoscience

Spring. 3(3-0) Juniors.

Techniques of reasoned, critical analysis applied to science-related ideas such as astrology, gods from outer space, and the secret life of plants. Specific topics selected from recent writings.

325. Biological and Social Aspects of Human Reproduction

Fall, Winter, Spring. 4(4-0) Juniors or approval of department.

Anatomy and physiology of human reproduction will be integrated with consideration of such current social concerns as contraception, abortion, veneral disease and drugs.

335. Science, Health and the Consumer

Spring. 4(4-0) Juniors or approval of department.

Scientific basis for decisions affecting individual and public health. Emphasis is on learning to use scientific principles to make rational judgments in these areas.

380. Issues in Science and Religion

Winter. 4(4-0) Juniors or approval of department. Interdepartmental with and administered by the Department of Religious Studies.

History of relationships between science and religion. Methods of science and religion. Attempts at resolution of conflicts and formation of new syntheses.

401. Engineering and Public Policy

Spring. 3(3-0) Seniors, or approval of department. Interdepartmental with and administered by Engineering.

Sociotechnical assessment of impact of technology on society, with analysis of the role of engineering and natural science in contributing to public policy formulation.

456. Foundations of Developmental Biology

Winter of even-numbered years. 3(3-0) ZOL 317; ZOL 417 recommended. Interdepartmental with and administered by the Department of Zoology.

Reading and discussion of original research which posed significant problems of modern developmental biology.

NATURAL SCIENCE (COLLEGE OF) NSC

201. Science Problem Solving Seminar I

Fall. 2(2-0) MTH 108 concurrently, approval of instructor.

Problem solving principles and application of strategies to the disciplines of science and mathematics. Activities reflecting the types of problems encountered in these disciplines emphasized.

202. Science Problem Solving Seminar II

Winter. 2(2-0) NSC 201, approval of instructor.

Continuation of NSC 201. Emphasis upon problem solving in science disciplines and principles of research design.

203. Science Problem Solving Seminar III

Spring. 2(1-3) May reenroll for a maximum of 4 credits. NSC 202, approval of instructor.

Applied experience in research. Design and implementation of simple research problems. Relationship of science and society.

305. Women in Science

Spring. 3(3-0) Introductory course in chemistry or physics or biological science or approval of instructor.

The development of women scientists of the past, present, and future will be examined. Emphasis will be on representatives from physics, biology, medicine, mathematics, and engineering.

390H. The Human Organism

Winter. 3(3-0) Approval of the Honors College or course coordinator.

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. Our Universe

Fall. 3(3-0) Approval of the Honors College or course coordinator.

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. The Uniqueness of Human Beings

Spring. 3(3-0) Approval of the Honors College, or course coordinator.

Physiological processes; behavioral mechanisms; genetic information; life support systems; physical disorders and adjustment to hostile environments.

410. Environmental Toxicology

Winter. 4(4-0) B S 212, BCH 401. Interdepartmental with Agriculture and Natural Resources.

Fate and effects of toxic chemicals in soil, plants, wildlife, and aquatic systems. Interactions between chemicals and the environment which influence their fate and ecological importance.

444. Pest Management I: Systems Management for Plant Protection

Fall. 4(3-2) FSM 200 or EC 201. Interdepartmental with Agriculture and Natural Resources.

Designed to integrate knowledge and improve ability in arriving at pest management decisions of varying complexity involving the fields of agronomy, wildlife, horticulture, entomology, and plant pathology.

445. Pest Management II: Pesticide Chemistry and Application Systems for Plant Protection

Winter. 5(3-4) CEM 132. Interdepartmental with Agriculture and Natural Resources.

A broad overview of pesticide chemistry, efficient usage, environmental fate, legislation and application techniques.

446. Pest Management III: Biological Systems for Plant Protection

Spring. 3(3-0) ENT 425, BOT 405, HRT 402 or CSS 402. Interdepartmental with Agriculture and Natural Resources.

Management of plant pests utilizing host resistance, cultural practices, legislation, and biological systems.

492. Integrative Studies

(U C 492.) Fall, Winter, Spring, Summer. 3 to 5 credits. Juniors.

In-depth study of topics which require an integration within or among the natural sciences or between the natural sciences and other major areas of human knowledge.

801. Special Problems in Electron Microscopy

Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of instructor.

802. Essentials of Electron Microscopy

Fall, Winter, Spring. 2(2-0) Approval of instructor; NSC 810 or NSC 820 or NSC 830 concurrently.

Principles of electron microscopy including optical theory, instrument design and construction and selected specimen preparative procedures. Emphasis on current literature.

810. Methods in Transmission Electron Microscopy

Fall, Winter, Spring. 3(1-5) Approval of instructor; NSC 802 or concurrently.

Use of the transmission electron microscopes and preparative instruments. Preparative technique for biological and nonbiological materials. Photographic principles including interpretation of micrographs.

820. Methods in Scanning Electron Microscopy

Fall, Winter, Spring. 3(1-5) Approval of instructor; NSC 802 or concurrently.

Use of the scanning electron microscope and preparative equipment. Preparative technique for biological and nonbiological materials. Interpretation of micrographs.

830. Analytical Electron Microscopy

Fall, Spring. 2(1-3) Approval of instructor; NSC 802 or concurrently.

Use of X-ray analysis on electron microscopes and electron microprobes with biological and physical materials. Methods of preparation and analysis of product data.

NURSING (COLLEGE OF) N E

(Effective July 1, 1980. Formerly School of Nursing.)

200. Nursing I

Spring. 3(3-0) or 4(4-0) Approval of college.

Concepts and theories of nursing in relation to professional nursing practice. Role of nursing in contemporary society.