292. Selected Topics

Fall, Winter, Spring. 3 to 5 credits. May reenroll for a maximum of 8 credits if different topic is taken.

Interdisciplinary study of topics in the natural sciences or the natural sciences as related to the humanities and social sciences.

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.

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.

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.

394H. Current Topics in Science (MTC)

Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 9 credits if different topics are taken. Approval of Honors College or course coordinator.

Scientists from several disciplines lecture on a common topic of current scientific interest, indicating the key concepts, the analytic approaches, the processes and the constraints of their respective disciplines.

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.

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

Fall. 5(3-4) CEM 143, ENT 425, HRT 402 or CSS 402, BOT 405 or concurrently or approval of instructor. Interdepartmental with Agriculture and Natural Resources.

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

446. Pest Management: Biological Systems for Plant Protection

Fall. 3(3-0) ENT 425, HRT 402 or CSS 402, BOT 405 or concurrently or approval of instructor. Interdepartmental with Agriculture and Natural Resources.

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

447. Pest Management: Systems Management for Plant Protection

Winter. 4(3-2) NSC 445, NSC 446 or approval of instructor. 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.

492. Integrative Studies

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. 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

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.

Approved through Winter 1989.

202. Introduction to Professional Nursing Practice

Winter. 3(3-0) Approval of college, N E 203 concurrently. Not open to Registered Nurses.

Fundamental theoretical concepts necessary for the delivery of professional practice utilizing the nursing process. Development of interpersonal communication and documentation skills. Accountability in nursing practice.

203. Introduction to Professional Nursing Practice Practicum

Winter. 3(0-9) Approval of college, N E 202 concurrently. Not open to Registered Nurses.

Application of fundamental theoretical concepts in nursing utilizing nursing process in simulated and real life settings. Development of fundamental psychomotor nursing skills.

212. Professional Nursing I: Basic Concepts

Winter. 2(2-0) Approval of college.

Introductory concepts forming foundation of professional nursing practice. Standards of practice, code of ethics. Relationship of nursing research to practice and health promotion.