115. The Nature and Continuity of Life
Fall, Winter, Spring, Summer. 4(3-2)
A. The development and testing of scientific concepts in examples of man's attempt to understand the world in which he lives. Selected topics from the life sciences illustrate the nature of scientific investigation.
B. Theories of the origin, development and structure of life and the universe of which it is a part. Examination of contemporary problems associated with defining life and death.
C. Consideration of social and ethical issues relating to our increasing control of reproduction and heredity. Reproduction and heredity from molecular, cellular and organismic perspectives, including human structure and function.
D. The nature of living things, contrasting various scientific and non-scientific views. The implications of the modern scientists understanding of life for our beliefs and values.

122. Biocultural Evolution of Man (193B.) Fall, Winter, Spring. 4(3-2)
Man's current understanding of himself and his beliefs as products of biological and cultural evolution. Implications for man's future.

125. Time and Change in Nature
Fall, Winter, Spring. 4(3-2)
A. Man's efforts to explain the present in terms of past events are explored through selected topics from the life sciences and earth sciences. Stresses the role of controversy in science and the nature of scientific evidence.
B. Heredity, evolution and diversity of life are examined from the viewpoint of the biological and cultural development of the human species and the relationships between humans and their environment.
C. The origin and evolution of earth and living things are studied as vital and related problems. Emphasis on problem-solving in science and impact of evolutionary concepts on human societies.

127. The Biocultural Health
Fall, Winter, Spring. 4(3-2)
Man's health examined from evolutionary and ecological viewpoints. Emphasis on the impact as increasingly man-made environment has had on the health of Western man.

129. The Biotechnology of Health
Winter. 4(4-0)
Survey of the biotechnology currently and potentially available to manage health problems. Social issues associated with this biotechnology.

135. Changing Concepts of the Universe
Fall, Winter, Spring, Summer. 4(3-2)
A. The origin and development of scientific explanations of the physical world. The origins of modern science and scientific revolutions.
B. The role of science in the development of Western man's ideas about reality. The origin and development of mechanistic concepts of the physical world and their part in intellectual dialogue.
C. Growth of theories of celestial motion and of matter. Their interrelationship. Impact of scientific knowledge on society. The contribution of science to clarification and solution of social problems.
D. Man's attempts to understand the universe and his place within it. The interaction between scientific concepts and the beliefs and values of the culture in which they are proposed.
Descriptions — Natural Science (College of)

436. Pest Management II: Biological Systems for Plant Protection
Winter. 3(2-0) ENT 430, 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.

437. Pest Management III: Systems Management for Plant Protection
Spring. 4(3-2) 435 and 436, FSM 300 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.

460. Clinic in Natural Science Teaching
Fall, Winter, Spring, Summer. 1 credit. May re-enroll for a maximum of 6 credits. Bachelor's degree.
Each practicum will deal with a specific science or science related problem and its implications for instruction. Discussions are intended to have immediate application by participants.

471. Environmental Topics in Nonmetropolitan Regions
Fall. 4(4-0) Nomination of students by own department and approved by participating faculty. Interdepartmental with Natural Resources and Agriculture and administered by Natural Resources.
Environmental topics in nonmetropolitan regions including issues on: production agriculture, service industries, nonagricultural uses, rural urban balance, discussion topics and case studies.

801. Special Problems in Electron Microscopy
Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of instructor.

810. Methods in Transmission Electron Microscopy
Winter, Spring. 3(1-5) 400 or approval of instructor.
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
Winter, Spring. 3(1-5) 400 or approval of instructor.
Use of the scanning electron microscope and preparative equipment. Preparative technique for biological and nonbiological materials. Interpretation of micrographs.

830. Analytical Electron Microscopy
Fall. 2(1-3) 810 or 820 or approval of instructor.
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 Natural Science

200. Nursing I
Spring. 4(4-0) Admission to School of Nursing.

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. 3(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. 4(2-6) 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.

300. Nursing II
Fall, Summer. 10(7-6) 200.

301. Nursing III
Fall, Winter. 10(6-12) 300.
Independent nursing role. Application of nursing process in a variety of health care settings. Healthy clients adapting to stress at all stages in the life cycle.

302. Nursing IV
Winter, Spring. 10(5-15) 301, 441.
Promotion of adaptation of individuals in diminished-stable health states and families in stable health states. Related research findings to practice.

303. Medical and Surgical Nursing
Fall, Spring. 12 credits. 307.
Care of individuals receiving medical and surgical therapy with emphasis on integration of preventative, 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. Maternity Nursing
Fall, Winter, Spring, Summer. 12 credits. Approval of school.
Nursing through pregnancy, parturition, and puerperium, including care of the newborn. Instruction and guided practice.

306. Nursing of Children
Fall, Winter, Spring, Summer. 12 credits. 207, FCS 2628.
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.

400. Nursing V
Fall, Spring. 10(5-15) 302.
Individuals in diminished-unsatisfactory health states and families in stable health states. Community assessment skills. Interdisciplinary approach to health care systems. Relates research findings to practice.

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

401. Nursing VI
Fall, Winter, Summer. 10(4-18) 400.
Individuals in compensated-decompensated health states, families in diminished-unsatisfactory health states, and communities in optimal health states. Functions interdependently within health care teams. Applies research findings to practice.

402A. Psychiatric Nursing of Individuals
Fall, Winter, Spring. 6 credits. Seniors, 402B concurrently.
Provides opportunities to develop skill in utilizing concepts and principles relevant to creating and maintaining therapeutic interpersonal relationships, individual and group participation with other professionals in providing comprehensive mental health services to the mentally ill individual and his family.

402B. Group Process and Community Action in Psychiatric Nursing
Fall, Winter, Spring. 6 credits. Seniors, 402A concurrently.
Provides opportunities to develop skill in utilizing concepts and principles and dynamics of group and community interactions relevant to providing nursing intervention in programs for primary, secondary and tertiary prevention in community mental health.

403A. Introduction to Public Health
Fall, Winter, Spring. 4(4-0) Majors or approval of school.
Philosophy, development, organization, and responsibilities of public health are explored in the light of the current economic and political climate. An introduction to vital statistics, epidemiology, and environmental health is included. Provides a frame of reference for practice in this field.

403B. Public Health Nursing
Fall, Winter, Spring. 8(4-16) Seniors.
Relationships between public health nursing and other health and welfare services. Guided practice is provided for students working with individuals, families and community resources. Major focus is on health maintenance, health promotion and nursing care to the sick in their homes. Roles, responsibilities and functions of the nurse in the community area stressed.

405. Nursing VII
Fall, Spring. 10(3-21) 401.
Integration of nursing, biological and behavioral sciences stressing application of the nursing process to the care of individuals, families and communities in depleted health states. Applies research findings to practice.