

**NATURAL RESOURCES N R**

**College of Agriculture and  
Natural Resources**

**202. Soils and Man's Environment**  
Winter. 3(3-0) *Interdepartmental with the departments of Crop and Soil Sciences, Resource Development, and Fisheries and Wildlife and administered by the Department of Crop and Soil Sciences.*

Use of soil and water resources in a technological society as it relates to environmental quality. Nature of pollution problems and their possible solutions. Food production and world population.

**220. Plants and Their Environment**  
Winter. 3(3-0) *Interdepartmental with and administered by the Forestry Department.*

Fundamental ecological relationships between various climatic, edaphic and biotic environmental factors of the ecosystem and plant response, including structure, function and evaluation of species.

**275. Exploring International Agriculture**  
Spring. 3(3-0) *Interdepartmental with and administered by Agriculture.*

Exploration of overseas assignments with international agencies; potential world food actualities and potentialities; special problems of the tropics compared with those in temperate regions.

**350. Leadership Development for Agriculture and Natural Resources**  
Winter, Spring. 3(3-0) *May enroll for a maximum of 6 credits. Approval of department. Interdepartmental with and administered by Agriculture.*

Leadership development. Preparation for community leadership. Firsthand look at social, economic, and political problems. Series of seminars, interviews, field trips. Emphasis on awareness, action, and involvement. Field trips required.

**399. Agriculture Internship**  
Fall, Winter, Spring, Summer. *Zero to 10 credits. [10 credits.] Juniors and approval of department. Interdepartmental with and administered by Agriculture.*

Professionalized experiences in a student's major. Supervision and evaluation conducted by faculty and cooperating agencies.

**425. Agriculture and Natural Resources Seminar**  
Spring. (2-0) *Interdepartmental with and administered by Agriculture.*

Current agricultural, natural resources, and environmental problems and solutions as presented by discussion leaders from various disciplines, arranged by undergraduate students.

**435. Pest Management I: Pesticide Chemistry and Application Systems for Plant Protection**  
Fall. 5(3-4) CEM 132. *Interdepartmental with Agriculture and the College of Natural Science. Administered by the College of Natural Science.*

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

†See page A-2 item 3.

**436. Pest Management II: Biological Systems for Plant Protection**

Winter. 3(3-0) ENT 430, BOT 405, HRT 402 or CSS 402. *Interdepartmental with Agriculture and the College of Natural Science. Administered by the College of Natural Science.*

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) NSC 435 and 436, FSM 200 or EC 201. *Interdepartmental with Agriculture and the College of Natural Science. Administered by the College of Natural Science.*

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.

**450. Natural Resource Administration**

Fall, Spring. 4(4-0) Seniors. *Interdepartmental with the departments of Fisheries and Wildlife, Forestry, Park and Recreation Resources and Resource Development. Administered by the Department of Forestry.*

Concepts and methods of administering wild-land properties. The legal, economic and social environment. Benefit-cost analysis of management changes. Unit organization, personnel management and accounting. Presents a systems view of administration.

**455. Natural Resource Economics**

Winter. 4(4-0) 450 or approval of department. *Interdepartmental with the departments of Fisheries and Wildlife, Forestry, Park and Recreation Resources and Resource Development. Administered by the Department of Forestry.*

Basic economic and political principles and techniques that govern the production and consumption of forest land products, including basic forest valuation procedures.

**471. Environmental Topics in Nonmetropolitan Regions**

Fall. 4(4-0) *Nomination of students by own department and approved by participating faculty. Interdepartmental with the College of Natural Science and Agriculture.*

Environmental topics in nonmetropolitan regions including issues on: production agriculture, service industries, nonagricultural uses, rural urban balance, discussion topics and case studies.

**475. International Studies in Agriculture and Natural Resources**

Summer. 3 to 9 credits. *Approval of the college. Interdepartmental with and administered by Agriculture.*

Study-travel experience emphasizing contemporary problems affecting agriculture in the world, national, and local communities. Field trips, case studies, interviews with leading experts, government officials, community leaders. Supervised individual study.

**491. Natural Resources and Modern Society**

Spring, Summer. 3(3-0) Juniors. *Interdepartmental with the Forestry and the Resource Development Departments and administered by Forestry Department.*

A survey of the social and economic significance of natural resources in modern industrial and urban society. Current problems of natural resources management and use are examined in terms of the society in which they exist.

**NATURAL SCIENCE N S**

**University College**

Students who have not taken any of the required natural science courses, may take any three courses from the following list.

- N S 115, 122, 125, 135, 142, 152, 162, 171H, 172H, 173H

OR

If you are enrolled in ATL 101, you may take N S 181, 182, 183.

Students who already have taken one or two natural science courses should refer to the chart below to complete the University requirements of 12 credits in Natural Science.

You may take	if you have not had credit in
NS 115	111, 116, 121, 131, 140, 151, 161, 181, 192, 322
122	193
125	112, 117, 132, 141, 182, 193, 323
135	113, 120, 133, 150, 160, 183, 191, 321
142	118, 193
152	193
162	193
171H	192
172H	193
173H	191
181	115 (111, 116, 121, 131, 140, 151, 161, 192, 322)
182	125 (112, 117, 132, 141, 193, 323)
183	135 (113, 120, 133, 150, 160, 191, 321)

**115. The Nature and Continuity of Life**

Fall, Winter, Spring, Summer. 4(3-2)

- A. The development and testing of scientific concepts as 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. Biosocial 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, Summer. 4(3-2)

- A. Man's attempts 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. Evolutionary relationships between humans and their environment.
- C. The origin and evolution on 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.