324. Processing Systems for Biological Products
Spring. 4(4-0) MTH 109 or 111, PHY 238.
Physical processes which influence biological products during production, handling, processing and distribution. Mass and heat balances, fluid flow, steam generation, psychrometrics, heat exchange, refrigeration and dehydration will be discussed.

416. Light Structural Systems
(AE 416) Fall. 4(4-0) PHY 238 or approval of department.
Functional planning of animal structures. Properties of building materials and selecting building components to satisfy requirements of light structures.

421. Electrical Energy Utilization
(AE 421) Spring. 4(3-2) PHY 238 or approval of department.
Efficient utilization of electrical energy, selection, operation and control of electrical equipment. Design of electrical systems.

431. Irrigation, Drainage and Erosion Control Systems
(AE 431) Spring. 4(3-2) CSS 210 or approval of department.
Use of surveying, design, construction and cost estimates of drainage, irrigation and water control systems.

443. Machinery and Tractor Systems
(AE 443) Fall. Spring. 4(2-0) A E 243 or approval of department.
Characteristics of basic agricultural field machinery. Diesel engine fuel injection and combustion chamber characteristics. Torque and power transmission, tractor stability and implement hitching.

490. Special Problems
Fall. Winter. Spring. Summer. 1 to 5 credits. May re-enroll for a maximum of 5 credits. Approval of department.
Individual student research and study in: agricultural machinery and tractor, waste management, food processing, structures and environment, materials processing and handling, water management, meteorology and climatology, agricultural systems analysis.

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

399. Agriculture Internship
Fall, Winter, Spring, Summer. Zero to 10 credits. [10 credits] Juniors and approval of department. Interdepartmental with Natural Resources.
Professionalized experiences in a student's major. Supervision and evaluation by faculty and cooperating agencies.

401. Agriculture and Natural Resources Communications Internship
Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 6 credits. 401, approval of college.
Internship with professionals in communications field with emphasis on student's areas of interest — writing, radio, TV, publications, etc.

425. Agriculture and Natural Resources Seminar
Spring. 2(3-0) Interdepartmental with Natural Resources.
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 139, Interdepartmental with Natural Resources 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.

436. Pest Management II: Biological Systems for Plant Protection
Winter. 3(3-0) ENT 436, BOT 405, HRT 402 or CSS 402. Interdepartmental with Natural Resources 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.

Agriculture

College of Agriculture and Natural Resources

AG 124A. Introduction to Careers in Vocational and Practical Arts Education—Agriculture
Fall and Fall. 2(1-2) Interdepartmental with and administered by the College of Education.

AG 275. Exploring International Agriculture
Spring. 3(3-0) Interdepartmental with Natural Resources.
Exploration of overseas assignments with international agencies; potential world food actualities and potentialities; special problems of the tropics compared with those in temperate regions.

American Studies

College of Arts and Letters

AMS 301. Issues in American Civilization
Fall. Winter. Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Not applicable to major requirements
Selected issues in American life past and present, with materials drawn from such disciplines as history, social sciences, philosophy, literature and the arts. Topics vary.

410. Perspectives in American Studies
Fall. 3 credits. Juniors in American Studies or approval of American Studies Committee.
Methods and significant works, for majors in the American Studies program. Offered by members of the relevant departments.