

## Descriptions—Agricultural Technology and Systems Management of Courses

### 490. Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: ATM 231 or ATM 240 or BCM 311. R: Open only to majors in Agricultural Technology and Systems Management. Approval of department; application required. Supervised individual student research and study in agricultural technology and systems management.

### 890. Special Problems

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department. Individual study of selected topics.

### 899. Master's Thesis Research

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to graduate students in Agricultural Technology and Systems Management.

### 999. Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Agricultural Technology and Systems Management.

## AGRICULTURE AND NATURAL RESOURCES ANR

### College of Agriculture and Natural Resources

#### 101. Preview of Science

Fall. 1(1-0) Interdepartmental with Natural Science; Engineering; and Social Science. Administered by Natural Science. R: Approval of College. Overview of natural sciences. Transitional problems. Communications and computer skills. Problem solving skills. Diversity and ethics problems in science. Science and society.

#### 110. New Student Seminar: Issues and Ideas in Agriculture and Natural Resources

Fall. 2(1-2) R: Open only to freshmen or sophomores or juniors in the College of Agriculture and Natural Resources. Exploration of broad issues in agriculture and natural resources. Personal and professional development through discussion and interactive experiences.

#### 192. Environmental Issues Seminar

Fall, Spring. 1(1-0) A student may earn a maximum of 4 credits in all enrollments for this course. Interdepartmental with Natural Science; Engineering; Social Science; and Communication Arts and Sciences. Administered by Natural Science. R: Open only to students in the College of Agriculture and Natural Resources or College of Engineering or College of Natural Science or College of Communication Arts and Sciences or College of Social Science. Approval of college. Environmental issues and problems explored from a variety of perspectives, including legal, scientific, historical, political, socio-economic, and technical points of view.

#### 210. Foundations in Connected Learning

Spring. 3(2-2) R: Approval of college. Active, self-directed, and reflective learning associated with agriculture and natural resource issues, self and social development, and ethical choice making. Development of a learning plan and design of a learning portfolio. Individual and group presentations. Field trips required.

#### 289. Civilizations, Food Crops and the Environment

Fall, Spring. 3(3-0) Interdepartmental with Crop and Soil Sciences. Role of the major food crops in the survival of civilizations and cultures from the past to the present, and the resulting environmental impacts. SA: TCC 289

#### 310. Connected Learning Seminar I

Fall, Spring, Summer. 2(2-0) P: (ANR 210) Learner-directed critical analysis of contemporary issues in agriculture and natural resources. Communication of outcomes to professional community. Collaborative learning integrated with individual experiences.

#### 311. Connected Learning Seminar II

Fall, Spring, Summer. 1(1-0) P: (ANR 310) Transition to a professional career through advanced analysis and presentation of contemporary issues in agriculture and natural resources.

#### 392. Agriculture and Natural Resources Seminar

Spring. 1(2-0) R: Not open to freshmen and sophomores. Current agricultural, natural resources and environmental problems and solutions. Discussion leaders from various disciplines.

#### 410. Connected Learning Application

Spring. 3(1-4) P: (ANR 311) Integration, synthesis, and analysis of structured experiences in agriculture and natural resources. Personal and interpersonal development, personal and professional integrity, communication competence, and critical and reflective thinking.

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

Fall, Spring, Summer. 2 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of college; application required. Study-travel experience emphasizing contemporary problems affecting agriculture and natural resources in the world, national and local communities. Case studies and interviews with officials, community leaders and leading professionals.

#### 489. Integrated Approaches to Agriculture and Natural Resources Problems (W)

Fall, Spring. 3(2-2) P: MTH 110 or MTH 116; EC 201 or EC 202. R: Open only to seniors in the College of Agriculture and Natural Resources. Completion of Tier I writing requirement. Holistic solutions to resource management and allocation: an integrated, multidisciplinary team approach to case study problems.

#### 490. Independent Study in Agriculture and Natural Resources

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to sophomores or juniors or seniors or graduate students in the College of Agriculture and Natural Resources. Supervised individual study in topics related to agriculture and natural resources.

#### 491. Selected Topics

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen and sophomores. Special topics in agriculture and natural resources.

#### 493. Professional Internship in Agriculture and Natural Resources

Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors and seniors in the College of Agriculture and Natural Resources. Approval of department; application required. A student may earn a maximum of 6 credits in the following courses: AEE 493, ANR 493, ANS 493, FW 493, PKG 493, PRM 493, PRR 493, and RD 493. Supervised professional experiences in agencies and businesses related to a student's major field of study.

## AMERICAN STUDIES AMS

### Department of American Studies College of Arts and Letters

#### 250. American Art

Spring. 3(3-0) Interdepartmental with History of Art. Administered by History of Art. Major developments and themes in non-indigenous American art (painting, sculpture, architecture, material culture) from its colonial origins through the 20th century.

#### 332. Technology and Culture

Fall. 4(4-0) Interdepartmental with Lyman Briggs School. Administered by Lyman Briggs School. P: Completion of Tier I writing requirement. R: Open only to juniors or seniors in the American Studies major in Lyman Briggs School. History of technology with special emphasis on the interaction of technical innovation and other elements of culture.

#### 335. The Natural Environment: Perceptions and Practices

Spring. 4(4-0) Interdepartmental with Lyman Briggs School. Administered by Lyman Briggs School. P: Completion of Tier I writing requirement. R: Open only to sophomores or juniors or seniors in the American Studies major or in Lyman Briggs School. American attitudes toward the natural environment and related public and private institutions.