

Agriculture and Natural Resources—ANR

- 110 New Student Seminar: Issues and Ideas in Agriculture and Natural Resources**
Fall. 1(0-2) R: Open only to freshmen or sophomores or juniors in the College of Agriculture and Natural Resources

Issues in agriculture and natural resources. Personal and professional development through discussion and interactive experiences.

- 192 Environmental Issues Seminar**

Fall, Spring. 1 credit. A student may earn a maximum of 4 credits in all enrollments for this course. Interdepartmental with Natural Science; Engineering; Social Science; Communication Arts and Sciences. Administered by College of 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.

- 202 Michigan's Agricultural and Natural Resources Heritage**

Fall. 2(2-0) Interdepartmental with ANR Education and Communication Systems. P:M: Completion of Tier I writing requirement.

Michigan's historical agricultural and natural resources. Orientation to sources for research and learning. Self-directed study integrating agricultural and natural resources heritage to family, community and careers.

- 210 Pathways in Connected Learning**

Fall, 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.

- 250 Global Issues in Agriculture and Natural Resources**

Fall. 3(3-0) Interdepartmental with Community, Agriculture, Recreation and Resource Studies. P:M: Completion of Tier I writing requirement. SA: AEE 301

Globalization. Economic, political, and social issues related to natural resources and agricultural production. Historical perspectives and future projections.

- 292 Applications in Environmental Studies**

Fall. 2(1-2) Interdepartmental with Natural Science; Engineering; Communication Arts and Sciences; Social Science. Administered by College of Natural Science. P:M: (NSC 192) R: Open only to students in the Specialization in Environmental Studies.

Community engagement project. Projects vary depending on student's major and area of environmental interest.

- 310 Connected Learning Seminar I**

Fall, Spring, Summer. 3(3-0) P:M: (ANR 210)

Learner-directed critical analysis of contemporary issues in agriculture and natural resources. Communication of outcomes to professional communities. Collaborative learning integrated with individual experiences.

- 311 Connected Learning Seminar II**

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P:M: (ANR 310)

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 or sophomores.

Current agricultural, natural resources and environmental problems and solutions. Discussion leaders from various disciplines.

- 410 Connected Learning Transitions**

Fall, Spring. 3(3-0) P:M: (ANR 310)

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. Fall: Given at various off campus sites.. Spring: Given at various off campus sites.. Summer: Given at various off campus sites.. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of college; application required.

Study-travel experience. Contemporary problems affecting agriculture and natural resources in world, national and local communities. Case studies and interviews with officials, community leaders and leading professionals.

- 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 or 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 or seniors in the College of Agriculture and Natural Resources. Approval of department; application required. A student may earn a maximum of 6 credits in all enrollments for any or all of these courses: ABM 493, AEE 493, ANR 493, ANS 493, CSS 493, EEP 493, FIM 493, FW 493, HRT 493, PKG 493, PLP 493, PRR 493, and RD 493.

Supervised professional experiences in agencies and businesses related to a student's major field of study.

- 810 International Food Laws and Regulations**

Fall, Spring, Summer. 3(3-0) RB: Food science, law, food safety or related disciplines.

Survey of food laws of various countries and regions.

- 811 U.S. Food Laws and Regulations**

Fall, Spring, Summer. 3(3-0) RB: (ANR 810) Food science, law or food safety. Not open to students with credit in FSC 421.

Food laws and regulations of the United States.

- 828 Food Safety Seminar Series**

Fall, Spring. 1(1-0) Interdepartmental with Veterinary Medicine; Natural Science; Social Science. Administered by College of Veterinary Medicine. RB: Enrollment in graduate program in related discipline

Selected current topics covering the broad areas of food safety as they relate to production, processing, transport, microbiology, toxicology, and social and human dimensions.

- 829 Problems in Food Safety**

Fall. 1(1-0) Interdepartmental with Veterinary Medicine; Natural Science; Social Science. Administered by College of Veterinary Medicine. RB: Enrollment in graduate program in related discipline

In-depth discussion of selected problems in food safety.

AMERICAN STUDIES

AMS

College of Arts and Letters

- 210 American Popular Culture**

Fall. 4(4-0) P:M: Completion of Tier I writing requirement.

Significant social issues in American popular culture. American studies theory and methods employed to analyze thematic and historical cultural representations in popular culture.

- 250 American Art**

Spring. 3(3-0) Interdepartmental with History of Art; American Studies. Administered by Department of Art and Art History.

Major developments and themes in non-indigenous American art (painting, sculpture, architecture, material culture) from its colonial origins through the 20th century.

- 265 Transcultural Perspectives**

Spring. 3(3-0) P:M: Completion of Tier I writing requirement.

Comparative study of contemporary and historical cultural discourses of and about the Americas and their place in the global commons. Implications of cultural identities, especially as shaped by age, race, ethnicity, gender and sexuality. Borders and tourism and the import and export of technologies, media and commodities.

- 280 Major Themes in American Studies**

Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P:M: Completion of Tier I writing requirement.

Major themes pertaining to the history, culture and study of the United States. Historiography and methods of the interdisciplinary study of the United States in relation to other cultures and countries.

HUMAN ANATOMY**ANTR****Department of Anatomy
College of Human Medicine****350 Human Gross Anatomy and Structural Biology**

Fall, Spring. 3(4-0) P:M: (BS 111 or LBS 149H or LBS 145) R: Not open to freshmen or approval of department. SA: ANTR 316, ANTR 316

Survey of human systemic gross anatomy with clinical illustrations. Introduction to the language of medicine. Structural basis of physiological principles. Designed for pre-professional students entering health-care disciplines.

381 Human Gross Anatomy Laboratory

Spring. 2(0-6) P:M: (ANTR 350) R: Approval of department. Not open to students with credit in KIN 217 or ZOL 328.

Structured survey of human regional gross anatomy using prosections, cross-sections, medical imaging, multimedia, and hypermedia.

401 Quantitative Human Biology

Spring. 3(4-0) Interdepartmental with Bio-medical Engineering; Materials Science and Engineering; Radiology. Administered by College of Engineering. P:M: (MTH 235 and PHY 184) and (PSL 250 or concurrently or PSL 431 or concurrently) and (CEM 141 or CEM 151) and (ANTR 350 or concurrently) R: (CSE 131 or concurrently or CSE 231 or concurrently or PSL 410)

Qualitative description and quantitative engineering analysis of selected, tractable human-biological systems. Multi-disciplinary problem-solving among medical and engineering professionals.

480 Special Problems in Anatomy

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. R: Approval of department. SA: ANTR 480

Topics from an anatomical field such as gross anatomy, histology, tissue culture, cytology, neurology, or embryology.

485 Directed Study in Human Prosection

Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:M: (ANTR 350 or ZOL 328 or KIN 217) R: Open only to juniors or seniors.

Prosection of selected regions and isolated structures of preserved human cadavers.

534 Cell Biology and Physiology I

Fall. 3 credits. Interdepartmental with Physiology; Biochemistry and Molecular Biology. Administered by Department of Physiology. R: Open only to graduate-professional students in the College of Human Medicine or College of Osteopathic Medicine.

Modern concepts of cell biology as a basis for understanding the physiology of human tissues and organ systems in health and disease.

290 Independent Study

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (AMS 265 or AMS 210) and (AMS 280 or 250) and (HST 202 or HST 203) R: Approval of department.

Special projects, directed reading, and research arranged by an individual student and a faculty member in areas supplementing regular course offerings.

310 Topics in American Studies

Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (AMS 210 or AMS 265) and (AMS 280 or AMS 250) Completion of Tier I writing requirement.

Significant theoretical, methodological and bibliographical issues in American studies. Techniques for analyzing cultural texts such as literature, film, paintings, photographs, music and architecture.

332 Technology and Culture

Fall. 4(4-0) Interdepartmental with Lyman Briggs School. Administered by Lyman Briggs School. P:M: 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:M: 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.

451 American Art through 1875

Spring of even years. 3(3-0) Interdepartmental with History of Art. Administered by Department of Art and Art History. P:M: (HA 120 or HA 121 or HA 250) and completion of Tier I writing requirement. SA: HA 438

Artistic production in North America from colonial times to 1875 in its cultural context.

453 American Art, 1875-1940

Fall of even years. 3(3-0) Interdepartmental with History of Art. Administered by Department of Art and Art History. P:M: (HA 120 or HA 121 or HA 250) and completion of Tier I writing requirement. SA: HA 458, HA 358

Artistic production in North America from 1875 to 1940, in its cultural context.

480 Seminar in American Material Folk Culture

Spring of odd years. 3(3-0) RB: Coursework in arts, humanities and cultural studies.

Understanding American material folk culture and folklife as sources for analysis and appreciation. Methodological approaches and fieldwork techniques.

492 Seminar in American Studies

Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (AMS 265 or AMS 210) and (AMS 280 or AMS 250) and (AMS 310 and ENG 481 and HST 480 and HST 202 and HST 203) R: Open only to American Studies majors.

Selected topics in American studies emphasizing interdisciplinary approaches. Topics vary.

855 Seminar in American Art

Spring of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with History of Art. Administered by Department of Art and Art History. R: Approval of department.

Intensive investigation of a topic in the history of American art.

881 American Studies Theory, Methods, and Bibliography

Fall. 3(3-0)

Methods and bibliographical sources of American Studies research. Interdisciplinary approaches to studying American culture.

890 Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of college.

Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

891 Special Topics in American Studies

Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course.

Special topics supplementing regular course offerings proposed by faculty for graduate students on a group study basis.

899 Master's Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of college.

Directed research leading to a master's thesis in partial fulfillment of Plan A master's degree requirements.

999 Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Approval of college.

Doctoral dissertation research.