

Descriptions - AGRICULTURE AND NATURAL RESOURCES

of

Courses

- IDC.** *The Impact of Animal Resource Management Upon the World's Developing Nations*
For course description, see Interdisciplinary Courses.

- 491.** *Natural Resources and Modern Society*
(N R 491.) Spring. 3(3-0) Juniors. Interdepartmental with the departments of Forestry and Resource Development. Administered by the Department of Forestry.
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.

AMERICAN STUDIES AMS

College of Arts and Letters

- 301.** *Issues in American Civilization*
Fall, Winter, Spring. 3(3-0) May reenroll 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.
- 378.** *Popular Culture and Technical Change*
Winter. 4(4-0) Juniors or approval of department. Interdepartmental with and administered by Lyman Briggs College.
Interrelationships among elements of mass culture and technical change. Introduction to relevant research methods.
- 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.
- 411.** *Problems in American Civilization*
Winter, Spring. 3 credits. Majors must reenroll for a maximum of 6 credits. AMS 410, Juniors in American Studies or approval of American Studies Committee.
Seminar approach to selected problems in American life employing the objectives and approaches of interdisciplinary studies. Offered by members of relevant departments, for majors in the American Studies program.

AMERICAN THOUGHT AND LANGUAGE ATL

College of Arts and Letters

To satisfy the University General Education requirement, a student must take one course in each of the following groups. Additional courses may be taken for elective credit.

1. 121 or 121E, 131, 141, 151, 161, 171, 181, 191H
2. 122 or 122E, 132, 142, 152, 162, 172, 182, 192H
3. 123 or 123E, 133, 143, 153, 163, 173, 183, 193H

101A. Comprehensive English

Fall, Winter, Spring, Summer. 3(3-1)
Admission by examination or approval of department. Students may not receive credit in more than one of the following courses: ATL 101A, ATL 101B, ATL 101E.

Instruction and practice in reading and writing. Emphasis upon mastery of fundamental skills needed for a variety of reading and writing assignments.

101B. Comprehensive English

Fall, Winter, Spring, Summer. 3(3-1)
Admission by examination or approval of department. Students may not receive credit in more than one of the following courses: ATL 101A, ATL 101B, ATL 101E.

Instruction and practice in reading and writing. Instruction in reading is emphasized.

101E. Comprehensive English-Experimental

Fall. 3 credits. Admission by examination or approval of department. Students may not receive credit in more than one of the following courses: ATL 101A, ATL 101B, ATL 101E.

Instruction and practice in reading and writing. Approved through Spring 1981.

102. Comprehensive English

Fall, Winter, Spring, Summer. 3(3-1)
ATL 101A or ATL 101B or approval of department. Students may not receive credit in both ATL 102 and ATL 102E.

Continuation of ATL 101 with emphasis on writing and reading.

102E. Comprehensive English-Experimental

Winter. 3 credits. ATL 101E or approval of department. Students may not receive credit in both ATL 102 and ATL 102E.
Continuation of ATL 101E.
Approved through Spring 1981.

103. Comprehensive English

Fall, Winter, Spring, Summer. 3(3-1)
ATL 102 or approval of department. Students may not receive credit in both ATL 103 and ATL 103E.

Continuation of ATL 102 with emphasis on reading and writing on American cultural topics.

103E. Comprehensive English-Experimental

Spring. 3 credits. ATL 102E or approval of department. Students may not receive credit in both ATL 103 and ATL 103E.
Continuation of ATL 102E.
Approved through Spring 1981.

117. Use of Libraries

Fall, Winter. 1(1-0)
The use of libraries, with emphasis on MSU Library. Course will stress knowledge and use of bibliographic and reference resources.

121. American Expression

Fall, Winter, Spring, Summer. 3(3-0)
Satisfactory grade on English proficiency examination or in Comprehensive English. Students may not receive credit in both ATL 121 and ATL 121E.

Aims to improve the student's ability to read and write and to acquaint him with his American heritage. Selected reading and theme topics.

121E. American Expression-Experimental

Fall. 3 credits. Admission by examination or approval of department. Students may not receive credit in both ATL 121 and ATL 121E.
Approved through Spring 1981.

122. American Expression

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English. Students may not receive credit in both ATL 122 and ATL 122E.

Aims to improve the student's ability to read and write, and to acquaint him with his American heritage. Selected reading and theme topics.

122E. American Expression-Experimental

Winter. 3 credits. Completion of ATL 121E or approval of department. Students may not receive credit in both ATL 122 and ATL 122E.
Approved through Spring 1981.

123. American Expression

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English. Students may not receive credit in both ATL 123 and ATL 123E.

Aims to improve the student's ability to read and write, and to acquaint him with his American heritage. Selected reading and theme topics.

123E. American Expression-Experimental

Spring. 3 credits. Completion of ATL 122E or approval of department. Students may not receive credit in both ATL 123 and ATL 123E.
Approved through Spring 1981.

131. Major Currents in American Experience

Fall, Winter, Spring, Summer. 3(3-0)
Satisfactory grade on English proficiency examination or in Comprehensive English.

Investigation into the significance Americans place on individual search for meaning and its effect on our American heritage. Subject matter is the focus for improving reading and writing abilities.

132. Major Currents in American Experience

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

The dreams and realities by which Americans have been inspired and betrayed are emphasized. Subject matter is the focus for improving reading and writing abilities.

133. Major Currents in American Experience

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Literary and historical study of the major cultural confrontations among groups and subcultures in American's heterogenous society. Subject matter is the focus for improving reading and writing abilities.

141. American Humanities

Fall, Winter, Spring, Summer. 3(3-0)
Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with his American heritage with emphasis on artistic and literary expression; and to improve his ability to read and write.

142. American Humanities

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with his American heritage with emphasis on artistic and literary expression; and to improve his ability to read and write.

143. American Humanities

Fall, Winter, Spring, Summer. 3(3-0)
Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with his American heritage with emphasis on artistic and literary expression and to improve his ability to read and write.

151. American Minorities

Fall. 3(3-0) Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with the experience of minorities in America, and to improve his ability at reading and writing. Selected readings and theme topics.

152. American Minorities

Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with the experience of minorities in America, and to improve his ability at reading and writing. Selected readings and theme topics.

153. American Minorities

Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with the experience of minorities in America, and to improve his ability at reading and writing. Selected readings and theme topics.

161. American Radical Thought

Fall. 3(3-0) Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with ideas concerning radical social change, and to improve his ability at reading and writing. Selected readings and theme topics.

162. American Radical Thought

Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with ideas concerning radical social change, and to improve his ability at reading and writing. Selected readings and theme topics.

163. American Radical Thought

Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with ideas concerning radical social change, and to improve his ability at reading and writing. Selected readings and theme topics.

171. America on Film

Fall. 3(3-2) Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with cinematic and fictional representation of experience, and to improve his ability at reading and writing. Selected readings and theme topics.

172. America on Film

Winter. 3(3-2) Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with cinematic and fictional representation of experience, and to improve his ability at reading and writing. Selected readings and theme topics.

173. America on Film

Spring. 3(3-2) Three credits in the second term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with cinematic and fictional representation of experience, and to improve his ability at reading and writing. Selected readings and theme topics.

181. Women in America

Fall. 3(3-0) Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with women's experience in America, and to improve the student's ability at reading and writing. Selected readings and theme topics.

182. Women in America

Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with women's experience in America, and to improve the student's ability at reading and writing. Selected readings and theme topics.

183. Women in America

Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered from ATL 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with women's experience in America, and to improve the student's ability at reading and writing. Selected readings and theme topics.

191H. Honors Work in American Experience

Fall. 3(3-0) Satisfactory grade in entrance examination.

Students read and write on selected topics to improve their knowledge of the American heritage and their ability at reading and writing.

192H. Honors Work in American Experience

Winter. 3(3-0) Satisfactory grade in the first term of any ATL sequence numbered ATL 121 or above.

Students read and write on selected topics to improve their knowledge of the American heritage and their ability at reading and writing.

193H. Honors Work in American Experience

Spring. 3(3-0) Satisfactory grade in the second term of any ATL sequence numbered ATL 121 or above.

Students read and write on selected topics to improve their knowledge of the American heritage and their ability at reading and writing.

205. Reading for University-Level Understanding

Fall, Winter, Spring. 2(0-4) May reenroll for a maximum of 4 credits.

Individualized instruction in techniques for improving vocabulary, comprehension, rate, study skills and test taking skills in order to achieve a better understanding of university-level materials.

232. American Humor

Winter. 4(4-0) Sophomores.

An interdisciplinary study of the relationship between American humor and the developing American experience, especially of the nineteenth and twentieth centuries.

292. Selected Topics

(U C 292.) Fall, Winter, Spring. 3 to 5 credits. May reenroll for a maximum of 8 credits if different topic is taken.

Interdisciplinary study of topics in American culture.

300. Supervised Individual Study

Fall, Winter, Spring, Summer. 2 to 4 credits. May reenroll for a maximum of 12 credits. 9 credits in a composition course; approval of department.

Selected students requesting individual study of interdisciplinary problems will work under supervision of University College professors. Variable elective credit will be determined when the student secures instructor, adviser, and department approval.

329. Advanced Writing: The Prose Essay

Spring 4(4-0) Completion of ATL sequence, ENG 213 or approval of department.

Provides instruction in the acquiring of knowledge from the prose essay, making sophisticated inferences from the ideas collected, and formulating and supporting logical theses in the writing of such essays.

350. American Film

Fall, Winter, Spring. 4(2-4) May reenroll for a maximum of 8 credits if different topic is taken. Sophomores.

American films as they reflect and influence society.

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of

Courses

- 380. The Role of Women in America: Arts and Self**
Winter of even-numbered years. 4(4-0)

Juniors.

Various art forms by women and the exploration of a feminine sensibility; sex, race, and class interactions, sexual stereotypes; male views of women and themselves; the impact of the media.

- 381. The Role of Women in America: Movements and Ideology**
Spring of odd-numbered years. 4(4-0)

Juniors.

Key personalities and philosophical currents in the women's movement; biological and cultural myths and realities; the historical role of the family, "The Culture of Romance."

- 439. Writing the Research Report**

Winter, Spring. 4(4-0) Juniors.

Advanced methods and organization of written research reports will be taught by providing examples, exercises, and writing practice based on research submitted by the students.

- 449. Technical Report Writing**

Winter, Spring. 4(4-0) Completion of ATL requirement, Juniors or approval of instructor.

Use and understanding of language through writing and editing clear, concise, purposeful technical reports, letters, instructions, proposals.

ANATOMY

ANT

College of Human Medicine College of Osteopathic Medicine College of Veterinary Medicine

- 216. Applied Human Anatomy**
Fall, Spring. 5(4-3) HPR major or minor.

Structural anatomy of the various systems of the human body. Concepts of kinesiological applications.

- 316. General Anatomy**
Fall, Spring. 5(5-0) B S 211 or B S 212 or approval of department.

Designed to impart the basic concepts of the broad field of anatomy. Special requirements of the various disciplines will be met in their respective laboratories.

- 420. Microscopic Anatomy**
Winter. 5(2-8) Medical Technology students or approval of department.
Microscopic study of the structure of cells, tissues and organs.

- 480. Special Problems**
Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 15 credits. Approval of department.
Individual study or project under the direction of a faculty member in biomedical research, gross anatomy, histology, neurology, or embryology.

- 505A. Anatomy in Physical Diagnosis**
Fall. 1 to 3 credits. H M 505 concurrently.
Exercises in which students study systemic anatomy in a physical diagnosis context. Preparatory self-instruction precedes exercises.

- 505B. Anatomy in Physical Diagnosis**
Winter. 1 to 3 credits. ANT 505A or approval of department.

Exercises in which students study regional anatomy in a physical diagnosis context. Preparatory self-instruction precedes exercises.

- 505C. Anatomy in Physical Diagnosis**
Spring. 1 to 3 credits. ANT 505B or approval of department.

Exercises in which students study regional anatomy in a physical diagnosis context. Preparatory self-instruction precedes exercises.

- 510. Veterinary Gross Anatomy**
Fall. 6(3-9) First-term Veterinary Medicine students.

Gross anatomy of a representative animal, the dog, is studied. Lecture, dissection of embalmed specimen, study of prosections, slides, models and living animals.

- 511. Veterinary Histology**
Fall. 5(3-6) First-term Veterinary Medicine students.

A general histology course for veterinary students which includes a survey of the tissue of the animal body.

- 512. Veterinary Neuro Anatomy**
Winter. 2(2-0) Second-term Veterinary Medicine students.

Gross anatomy of the central nervous system in animals emphasizing functional and dysfunctional aspects of pathways and nuclei in dogs as a foundation for clinical neurology.

- 513. Veterinary Microscopic Anatomy**
Winter. 4(2-4) Second-term Veterinary Medicine students.

Microscopic anatomy of the digestive, urinary, respiratory, male and female reproductive systems, integumentary system, central nervous system and special sense organs of domesticated animals.

- 514. Veterinary Comparative Anatomy**
Spring. 5(4-4) Third-term Veterinary Medicine students.

Lecture, dissection of embalmed specimens and the study of prosections, models and live animals related to the anatomy of the domestic animals.

- 540. Gross Biomedical Structure**
Winter. 1 to 15 credits. May reenroll for a maximum of 15 credits. Admission to a college of medicine; graduate students with approval of department.

Regional gross anatomy of the back, thorax, abdomen, pelvis and perineum.

- 541. Gross Biomedical Structure**
Spring. 1 to 15 credits. Admission to a college of medicine; graduate students with approval of department.

Regional gross anatomy of the head and neck.

- 542. Gross Biomedical Structure**
Fall. 1 to 15 credits. Admission to a college of medicine; graduate students with approval of department.

Regional gross anatomy of the limbs.

- 543. Microscopic Anatomy**
Winter. 3(1-3) Human Medicine students; approval of department for graduate students.

The principles of microscopic anatomy, utilizing self-instructional units and laboratory experience with organ sections viewed through the light microscope.

- 544. Human Ontogenesis**
Fall. 3(3-0) Admission to a college of medicine; graduate students with approval of department.

Formal lectures, class conferences and student reports on the normal and abnormal organogenesis of the human embryo and fetus with emphasis on clinical correlations.

- 545. Neuroanatomy**
Spring. 3(4-0) Admission to medical school or approval of Neuroscience Committee.

Introduction to gross and microscopic anatomy of the human nervous system, to related basic neurophysiologic concepts and to a problem-solving approach to the diagnosis of nervous system disease.

- 560. Medical Histology**
Summer. 4(3-4) Admission to a college of medicine or approval of department.

Structural and functional characteristics of basic cells, tissues and organ systems. Emphasis on core concepts and visual discrimination.

- 563. Osteopathic Medical Neuroanatomy**
Fall. 4(3-4) Admission to a college of medicine; graduate students with approval of department.

Medically oriented problem-solving neuroanatomy with laboratory. Structure of the human nervous system is correlated with normal function, clinical testing and classical lesions encountered in medical practice.

- 565. Introduction to Human Gross Anatomy**
Summer. 6(4-6) Admission to a college of medicine or approval of department.

Core concepts in regional, systemic and topographical human gross anatomy: Prosection, discussion and lecture methods using audiovisual aids and frequent review.

- 580. Special Problems**
Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 15 credits. Admission to professional program in the College of Human Medicine, College of Osteopathic Medicine or the College of Veterinary Medicine, and approval of department.

Biomedical research, gross anatomy, histology, neurology, immunology or embryology.

- 813. Problems in Anatomy**
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 15 credits. Basic disciplines in various areas and approval of department.

Various anatomical fields such as gross anatomy, histology, hematology, tissue culture, cytology, neurology and embryology will be studied.

- 815. Anatomy of the Nervous System**
Fall. 5(3-5) Approval of department.

Developmental, gross and microscopic anatomy of the nervous system. Organizational and functional aspects of the peripheral and central nervous system are stressed. Gross demonstrations include brain and dog dissections.