

**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 re-enroll for a maximum of 6 credits. 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

**University College**

Students may earn credit in only one of the courses in each of the following three groups:

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

**101A. Comprehensive English**

(I S 095; 100.) Fall, Winter, Spring, Summer. 3(4-0) No student may receive credit in both 101A and 101B. Admission by examination or approval of department.

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**

(I S 095; 100.) Fall, Winter, Spring, Summer. 3(4-0) No student may earn credit in both 101A and 101B. Admission by examination or approval of department.

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

**102. Comprehensive English**

Fall, Winter, Spring, Summer. 3(4-0) 101A or 101B.

Continuation of 101 with emphasis on writing and reading.

**103. Comprehensive English**

Fall, Winter, Spring, Summer. 3(4-0) 102.

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

**117. Use of Libraries**

Fall, Winter. 1(1-0)

The use of libraries, with emphasis on M.S.U. Library. Course will stress knowledge and use of bibliographic and reference resources.

**121. American Expression**

(111A.) Fall, Winter, Spring, Summer. 3(3-0) Satisfactory grade on English proficiency examination or in Comprehensive English.

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

**122. American Expression**

(112A.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the first term of any ATL sequence numbered 121 or above; or satisfactory performance in Comprehensive English.

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

**123. American Expression**

(113A.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the second term of any ATL sequence numbered 121 or above; or satisfactory performance in Comprehensive English.

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

**131. Major Documents in American Experience**

(111B.) Fall, Winter, Spring, Summer. 3(3-0) Satisfactory grade on English proficiency examination or in Comprehensive English.

Aims to acquaint the student with significant works, and to improve his abilities at reading and writing. Selected readings and theme topics.

**132. Major Documents in American Experience**

(112B.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the first term of any ATL sequence numbered 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with significant works, and to improve his abilities at reading and writing. Selected readings and theme topics.

**133. Major Documents in American Experience**

(113B.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the second term of any ATL sequence numbered 121 or above; or satisfactory performance in Comprehensive English.

Aims to acquaint the student with significant works, and to improve his abilities at reading and writing. Selected readings and theme topics.

**141. American Humanities**

(111C.) 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**

(112C.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the first term of any ATL sequence numbered 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**

(113C.) Fall, Winter, Spring, Summer. 3(3-0) Three credits in the second term of any ATL sequence numbered 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**

(111D.) 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**

(112D.) Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered 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**

(113D.) Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered 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**

(111E.) 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**

(112E.) Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered 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**

(113E.) Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered 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**

(111F.) Fall. 3(3-0) 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**

(112F.) Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered 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**

(113F.) Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered 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**  
(111J.) 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**  
(112J.) Winter. 3(3-0) Three credits in the first term of any ATL sequence numbered 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**  
(113J.) Spring. 3(3-0) Three credits in the second term of any ATL sequence numbered from 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**  
(111H.) 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**  
(112H.) Winter. 3(3-0) Satisfactory grade in the first term of any ATL sequence numbered 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**  
(113H.) Spring. 3(3-0) Satisfactory grade in the second term of any ATL sequence numbered 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.

**300. Supervised Individual Study**  
Fall, Winter, Spring. 2 to 4 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.

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

**505. Anatomy in Physical Diagnosis**  
Fall. 2(2-0)

The student will study independently to learn how anatomy is utilized in physical diagnosis by working with simulated patients. This will be supplemented by self-instructional, audiovisual carrels on radiological anatomy and projections.

**520. Veterinary Anatomy**  
Summer. 5(3-6) Admission to professional veterinary program.

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

**521. Veterinary Anatomy**  
Fall. 6(3-9) Admission to professional veterinary program.

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

**522. Veterinary Anatomy**  
Fall. 4(2-6) 520.

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

**523. Veterinary Anatomy**  
Winter. 4(2-6) 521 or approval of department.

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

**540. Gross Biomedical Structure**  
Fall, Winter, Spring. Variable credit. May re-enroll for a maximum of 15 credits. Human Medicine students; approval of department for graduate students.

Human structure, systemic and regional, is studied in self-instructional and dissection sequences. Application of this knowledge to recognition of normal and abnormal structure in appropriate medical contexts is accomplished through self-instructional and clinical sessions.

**543. Microscopic Anatomy**  
Fall. 5(3-8) Human Medicine students; approval of department for graduate students.

The normal structure of cells, tissues and organs as they appear under the light and electron microscope.

**560. Microbiomedical Structure**  
Fall. 2(1-3) Approval of department.

The purpose of this course is to assist the student in learning to better understand the various activities of the human body through interpretation of the microscopic structure of tissues.

**565. Survey of Anatomy I**  
Fall. 5(5-0) Osteopathic Freshmen, or approval of department.

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

**801. Seminar**  
Fall, Winter, Spring. 1(1-0) Approval of department.

**813. Problems in Anatomy**  
Fall, Winter, Spring, Summer. Variable credit. May re-enroll 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.

**899. Research**  
Fall, Winter, Spring, Summer. Variable credit. Majors.

**901. Seminar**  
Fall, Winter, Spring. 1(1-0) Approval of department.

**999. Research**  
Fall, Winter, Spring, Summer. Variable credit. Majors.

## ANIMAL HUSBANDRY A H

### College of Agriculture and Natural Resources

**111. Livestock and Meat Industry**  
Fall, Winter, Spring. 4(3-4)

Adaptation, distribution and numbers of livestock throughout the world; significance and economic importance. Trends in livestock production. Evaluating, grading, classifying and marketing of livestock and meat. Relationship of live animal conformation to carcass merit.

**241. Meat Production**  
Winter. 4(2-6) 111.

Principles of meat evaluation and selection. Carcass certification programs. Influence of production factors on carcass desirability. Practice in slaughtering, cutting and meat processing.

**242. Meats, Poultry and Fishery Products I**  
Fall. 3(2-2) Interdepartmental with and administered by Food Science.

Principles of evaluation and nutritive value. Identification of grades and cuts of beef, pork, lamb and poultry products.

**245. Meat Evaluation and Grading**  
Fall, Spring. 1 to 3 credits. May re-enroll for a maximum of 4 credits subject to a maximum of 10 credits in 245 and 335 combined. 241.

Evaluation of carcasses and wholesale cuts of beef, pork, veal and lamb in accordance with federal and commercial grading standards. Inspection trips through large meat packing plants.

**335. Livestock Selection**  
Fall, Winter, Spring. 1 to 3 credits. May re-enroll for a maximum of 9 credits subject to a maximum of 10 credits in 245 and 335 combined. 111.

Evaluation of productive merit of individual animals. Comparison of type with a standard. Relationship of form to function. Field trips to prominent livestock breeding establishments and to major livestock events.

## ANATOMY ANT

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

**316. General Anatomy**  
Fall, Spring. 5(5-0)

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.