7024

#### 402. 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(2-0) 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.

#### 450. United States Agriculture for Overseas Students

Fall. 3(3-0) Advanced undergraduate or graduate students from countries other than the United States or Canada.

Orientation course for overseas students. Development of United States agriculture. Institutions serving agriculture with emphasis on Land Grant University system. Scientific developments and their impact on agriculture. Field trips.

# 462. Rural Transformation in Developing Societies

Fall. 3(3-0) PAM 201 or EC 201; PAM 260 recommended. Interdepartmental with Public Affairs Management and Food Systems Economics and Management and administered by Food Systems Economics and Management. Traditional agricultural systems and the incentive environment for economic growth in rural areas. Adjustment to technological, institutional and human change. Strategies for rapid agricultural transformation.

# 471. Environmental Topics in Nonmetropolitan Regions

Fall. 4(4-0) Nomination of students by own department and approved by participating faculty. Interdepartmental with the College of Natural Science and Natural Resources and administered by Natural Resources.

Environmental topics in nonmetropolitan regions including issues on: production agriculture, scrvice industries, non-agricultural uses, rural urban balance, discussion topics and case studies.

# 475. International Studies in Agriculture and Natural Resources

Spring, Summer. 3 to 9 credits. Approval of the college. Interdepartmental with Natural Resources.

Study-travel experience emphasizing contemporary problems affecting agriculture in the world, national, and local communities. Field trips, case studies, interviews with leading experts, government officials, community leaders. Supervised individual study.

#### 488. The Impact of Animal Resource Management Upon the World's Developing Nations

Winter. 3(4-0)

For course description, see Interdisciplinary Courses.

# 880. Soils and Land Use in Tropical and Subtropical Regions

Spring. 3(3-0) Approval of department. Interdepartmental with and administered by Soil Sciences.

Problem oriented studies of soils and land use in the tropics and subtropics in relation to their genesis, morphology, taxonomy, and management.

#### 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.

# 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 carn credit in only one of the courses in each of the following three groups: 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(3-1) 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(3-1) 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(3-1) 101A or 101B.

Continuation of 101 with emphasis on writing and reading.

#### 103. Comprehensive English

Fall, Winter, Spring, Summer 3(3-1)

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 conoerning 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.

# 165. American Utopianism: Beginnings

Fall. 3(3-0)

Utopian and communitarian urge in early American thought and experience; improvement of the student's reading, writing, and speaking abilities.

#### 166. American Utopianism: Middle Years

Winter. 3(3-0)

Utopian and communitarian urge in American thought and experience in the middle years; improvement of the student's reading, writing, and speaking abilities.

#### 167. American Utopianism: Contemporary

Spring. 3(3-0)

Utopian and communitarian urge in contemporary American thought and experience; improvement of the student's reading, writing, and speaking abilities.

#### 171. America on Film

(111F.) Fall. 3(4-0) 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(4-0) 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(4-0) 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

(1111.) 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

(1121.) 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

(1131.) 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.

#### **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.

#### 420. Microscopic Anatomy

Fall. 5(2-8) Medical Technology students or approval of department.

Microscopic study of the structure of cells, tissues and organs.

# 505A. Anatomy in Physical Diagnosis (505.) Fall. 1 to 3 credits.

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. 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. 505B or ap-

proval of department.

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

# 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 prosections, slides, models and living animals.