

150 Writing: The Evolution of American Thought
Fall, Spring. 4(4-0) P:M: (ATL 1004) or designated score on English placement test. Not open to students with credit in MC 111 or MC 112 or LBS 133 or AL 192 or AL 192H or ATL 110 or ATL 115 or ATL 120 or ATL 125 or ATL 130 or ATL 135 or ATL 140 or ATL 145 or ATL 195H.

Drafting, revising, and editing compositions derived from American historical, social, and cultural texts to develop skills in narration, persuasion, analysis, and documentation.

195H Writing: Major Topics in American Thought
Fall, Spring. 4(4-0) RB: Designated score on English placement test. Not open to students with credit in MC 111 or MC 112 or LBS 133 or AL 192 or AL 192H or ATL 110 or ATL 115 or ATL 120 or ATL 125 or ATL 130 or ATL 135 or ATL 140 or ATL 145 or ATL 150.

Drafting, revising, and editing compositions derived from readings on major topics in American thought to develop advanced skills in narration, persuasion, analysis, and documentation.

290 Independent Study
Fall, Spring, Summer. 1 to 4 credits. R: Open only to freshmen or sophomores. Approval of department.

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

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) RB: (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: ANT 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.

200A Introductory Judging of Livestock or Carcasses
Spring. 1 to 2 credits. A student may earn a maximum of 3 credits in all enrollments for this course. RB: (ANS 211) R: A student may earn a maximum of 8 credits from ANS 200A, ANS 200B, ANS 200C, ANS 200D, ANS 300A, ANS 300B, ANS 300C and ANS 300D.

Evaluation of functional conformation of beef cattle, sheep and swine and their carcasses. Preparation for intercollegiate competition. Field trips required.

200C Introductory Judging of Dairy Cattle
Spring. 1 to 2 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: A student may earn a maximum of 8 credits from the following courses: ANS 200A, ANS 200B, ANS 200C, ANS 200D, ANS 300A, ANS 300B, ANS 300C and ANS 300D.

Evaluation of functional conformation of dairy cattle. Preparation for intercollegiate competition. Field trips required.

200D Introductory Judging of Horses
Spring. 1 to 2 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: A student may earn a maximum of 8 credits from ANS 200A, ANS 200B, ANS 200C, ANS 200D, ANS 300A, ANS 300B, ANS 300C and ANS 300D. SA: ANS 200B

Evaluation of functional conformation and performance of horses. Preparation for intercollegiate competition. Field trips required.

210 Animal Products
Fall. 4(3-3) R: Not open to freshmen. Edible animal products. Processing, preservation, storage and distribution of dairy, meat, and egg products.

211 Animal and Product Evaluation
Fall. 3(1-4) Evaluation of breeding stock, market animals and carcasses. Production records and soundness of breeding animals. Quality grading, yield grading and pricing of market animals and carcasses.

212 Merchandising Purebred Livestock
Spring of odd years. 2(1-2) RB: (ANS 110) Purebred livestock industry. Private treaty and auction sales. Advertising, animal selection and budgeting of purebred livestock sales. Field trips required.

222 Introductory Beef Cattle Management
Spring. 3(2-2) RB: (ANS 110) Not open to students with credit in ANS 422. Management practices and systems for beef herds. Feed requirements, reproduction, breeding, performance testing, housing, and diseases. Costs and returns. Field trips required.

232 Introductory Dairy Cattle Management
Fall. 3(2-2) Not open to students with credit in ANS 432. Principles and techniques of dairy herd management including calf and heifer care plus lactating and dry cow management.

242 Introductory Horse Management
Fall. 3(2-2) Not open to students with credit in ANS 442. Principles of horse management. Reproduction, nutrition, herd health, genetics, economics, marketing. Field trips required.

ANIMAL SCIENCE ANS

Department of Animal Science College of Agriculture and Natural Resources

110 Introductory Animal Agriculture
Fall, Spring. 4(3-2) SA: ANS 112
History of animal agriculture and its relationship to human needs, production systems, marketing, and environmental considerations. Current goals of and limitations affecting U.S. farm animal production.

140 Fundamentals of Horsemanship
Spring. 2(0-4) A student may earn a maximum of 4 credits in all enrollments for this course.
Safe horse handling skills. Riding skills. Riding aids and working with the horse at the beginner, intermediate or advanced level.

141 Draft Horse Basics
Fall, Spring. 2(0-4)
Safe handling, hitching and driving of draft horses. Care and maintenance of harness and horse drawn equipment.

142 Horse Training for Competition
Summer. 2(0-4) RB: (ANS 140) R: Approval of department.
Training techniques to prepare horses for competition. Exhibiting horses. Field trips required.

HUMAN ANTR ANATOMY

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: ANT 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, Summer. 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.