

Animal Sciences and Agricultural Education

AGED 187. Organization, Administration, and Supervision of Agricultural Education (3)

Prerequisite: senior standing. A study of the California and federal plans for vocational education as they pertain to agricultural education.

AGED 189. Education in Agricultural Mechanics (3)

Prerequisites: MEAG 1S; junior standing. Strategies for organizing, teaching, and administering educational programs in agricultural mechanics for youth and adults.

AGED 190. Independent Study (1-3; max total 6)

See *Academic Placement — Independent Study*. Approved for *RP* grading.

GRADUATE COURSES

The following courses are open to students who have been accepted into the graduate program. Students who are not in graduate standing should contact the department graduate coordinator prior to enrolling.

Agriculture (AGRI)

AGRI 200. Biometrics in Agriculture (3)

Prerequisite: PLANT 99, AGRS 71, or MATH 101, or permission of instructor. Advanced concepts in the design of agricultural experiments. Emphasis is placed on the selection of appropriate designs to meet the objectives of well-planned experiments. Relative merits of various designs and topics in analysis, interpretation, and regression are covered.

AGRI 201. Agricultural Laboratory Techniques (3)

Prerequisite: One of the following courses: BIOL 161; CHEM 105, 129A, 151; FSC 115. Agricultural problem solving through the application of advances in laboratory technology, crop management, foods, nutrition, soil and water quality. Theory and practice operation of scientific instruments and techniques are taught. Student-defined project and report required. (2 lecture, 3 lab hours)

AGRI 220. Research Methodology and Communications (3)

Critical literature review, quantitative and qualitative research design, scientific writing, questionnaire design and use, and presentation of research results. Ethical research issues examined. Approved for *RP* grading.

AGRI 280. Seminar in Agricultural Education (1-3; max see below)

Maximum total credit 9 units in any given area or any combination of the three areas. Prerequisite: permission of instructor; admission to teacher preparation program; bachelor's degree in agriculture. Advanced problems in agriculture; research and experimentation in a selected area: animal science, plant science, or agricultural mechanics. Approved for *RP* grading.

AGRI 281. Problems in Agricultural Education (1-3; max total 3)

Prerequisite: graduate standing. Individual supervised research in agricultural education; appropriate reports and evaluation required. Individual conferences.

Animal Sciences (ASCI)

ASCI 229. Seminar (1; required total 3)

Prerequisite: permission of instructor. Students investigate and present current research problems. Observation and evaluation of additional assigned seminars. Oral and written reports required.

ASCI 240T. Topics in Animal Science (3; max total 12)

Prerequisite: upper-division animal science appropriate to study topic; permission of instructor. Investigation of topic in animal science; anatomy, physiology, pathology, nutrition, genetics, or economics. Topics may require lab hours.

ASCI 241. Endocrine and Reproductive Physiology (3)

Prerequisite: ASCI 155. Physiology which deals with neural and hormonal integration and control of the animal body, including scientific aspects of the processes of reproduction and application of current knowledge in improving reproductive efficiency.

ASCI 242. Environmental Physiology of Domestic Animals (3)

Prerequisite: ASCI 145; permission of instructor. A study of environmental factors affecting domestic animals under field and controlled conditions.

ASCI 246. Ruminant Nutrition (3)

Prerequisite: ASCI 135, CHEM 150. Ruminant physiology of digestion, absorption, and metabolism and nutrients, and the relationship of enzymes and hormones.

ASCI 247. Concepts in Non-Ruminant Nutrition (3)

Prerequisite: ASCI 135 or equivalent, graduate standing or consent of instructor. Digestion, absorption, nutrient utilization, and interrelationships in poultry, swine, and other non-ruminants.

ASCI 248. Meat Science and Muscle Biology (3)

Prerequisite: ASCI 171, graduate standing or consent of instructor. Evaluation of muscle as meat; biological characteristics, growth and development of skeletal muscle, glycogen metabolism, and factors affecting quality of meat.

ASCI 290. Independent Study (1-3; max total 6)

See *Academic Placement — Independent Study*. Approved for *RP* grading.

ASCI 299. Thesis (2-4; max total 4)

Prerequisite: See *Criteria for Thesis and Project*. Preparation, completion, and submission of an acceptable thesis for the master's degree. Approved for *RP* grading.

IN-SERVICE COURSE

(See *Catalog Numbering System*.)

Agriculture (AGRI)

AGRI 300. Topics in Agriculture (1-3; max total 6)

Topics may require lab hours. In-service professional training in selected areas of agriculture.