

AGRICULTURE (AGR)

AGR 101 (3 credit hours)

The Economics of Food and Agriculture

Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues including the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).

Attributes: SB - Social Behavior Science

Components: LEC: Lecture

AGR 115 (3 credit hours)

Agriculture Maintenance

Provides a study of basic maintenance issues (electrical, plumbing, fencing, building construction and repair, and safety) that arise in farming operations; and the practical troubleshooting and problem solving techniques. Lecture/Lab: 3.0 credits (75 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 125 (3 credit hours)

Introduction to Fertilizers and Soils

Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 130 (2 credit hours)

Field Applications in Agriculture

Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Requires some knowledge of agricultural situations. Lecture: 2.0 credits (30 contact hours).

Pre-requisite: MAT 55 or equivalent placement level.

Attributes: Technical

Components: LEC: Lecture

AGR 135 (3 credit hours)

Herbaceous Plant Production

Introduces the identification, selection, requirements, care, and use of herbaceous plant materials commonly found in food/agronomic production, including scientific name and common pests. Discusses Annuals, perennials, bulbs, and grasses. Lecture/Lab: 3.0 (60 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 140 (3 credit hours)

Issues In Agriculture

Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 145 (3 credit hours)

Technology in Agriculture

Provides students with a basic introduction to the newest technological advancements in the agricultural industry, including the involvement of computer-based applications. Introduces students to computer integrated management of agricultural operations, including livestock, crop, financial management, and recordkeeping. Develops understanding of equipment and farm monitoring technology and their integration with smart devices. Lecture/Lab: 3.0 credits (60 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 150 (3 credit hours)

Agricultural Power

Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 155 (3 credit hours)

Greenhouse Production

Introduces students to the concept of controlled environment growing and plant management. Demonstrates plant production with greenhouse techniques. Discusses identification of diseases, insects, and plant disorders in the greenhouse. Identifies selection of plant and growth medium. Emphasizes plants for agricultural and food production. Lecture/Lab: 3.0 credits (75 contact hours)

Pre-requisite: AGR 135.

Attributes: Technical

Components: LEC: Lecture

AGR 160 (3 credit hours)

Horticultural Science

A study of the practical principles and practices used in horticulture. Lecture: 3 credits (45 contact hours).

Components: LEC: Lecture

AGR 170 (3 credit hours)

Introduction to Equipment, Machines, and Engines

Provides an introduction to tractors, combines, balers, forage harvesters and windrowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 175 (2 credit hours)

Agriculture Marketing and Sales

Enables students to gain a fundamental knowledge of marketing and sales strategies as they are directly related to the agriculture industry. Focuses on market research, marketing management, promotions, produce handling, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 180 (2 credit hours)**Agricultural Internship I**

Provides the opportunity to broaden the educational experience through appropriate observation and individualizes work assignments related to the pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite Or Lab: 2.0 credits (75 contact hours).

Co-requisite: (AGR 150 and AGR 140) or Consent of Instructor.

Attributes: Technical

Components: LAB: Laboratory

AGR 190 (2 credit hours)**Agricultural Internship II**

Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Lab: 2.0 credits (75 contact hours).

Pre-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor.

Attributes: Technical

Components: LAB: Laboratory

AGR 200 (2 credit hours)**Agricultural Internship III**

Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. NOTE: Internship III is a variable credit (1-2 credit hours) with a total 2 credit hour program requirement. Students must take a minimum of one credit hour of Internship in their last semester of enrollment or after all agricultural classes have been completed. Lab: 2.0 credits (75 contact hours).

Pre-requisite: AGR 180 and AGR 190.

Attributes: Technical

Components: LAB: Laboratory

AGR 205 (3 credit hours)**Forage Management**

Includes the study of the management, production, and utilization of forage grasses and legumes for harvested and grazed production. Includes subject areas such as varieties selection, planting, calculating yields, production costs, growth management, and harvesting techniques. Focuses on annual and perennial legume and grass production. Emphasizes establishment, winter survival, fertilization, cutting management, forage storage, and variety selection. Lecture/Lab: 3.0 credits (60 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 210 (3 credit hours)**Applications in Animal Technology**

Identifies the basic skills necessary to promote safe, adequate, and proper handling of various species of animals. Describes the proper technical applications necessary in the agricultural industry. Integrated Lecture/Lab: 3 credits (60 contact hours).

Pre- or co-requisite: AGR 240.

Attributes: Technical

Components: LAI: Integrated Laboratory, LEI: Integrated Lecture

AGR 215 (3 credit hours)**Weed Management**

Examines the nature of crop/weed interactions and explores various weed control methods. Explores weed identification, biology, ecology, and modern management principles. Lecture/Lab: 3.0 credits (60 contact hours).

Pre-requisite: AGR 250.

Attributes: Technical

Components: LEC: Lecture

AGR 220 (3 credit hours)**Computers In The Agricultural Environment**

Provides an introduction to computers as they relate to the agricultural environment. Lecture 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Pre-requisite: CIS 100.

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 225 (3 credit hours)**Fruit and Vegetable Production**

Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection; production methods; growth and development; harvesting; and pest control. Lecture/Lab: 3.0 credits (75 contact hours).

Pre-requisite: AGR 250.

Attributes: Technical

Components: LEC: Lecture

AGR 230 (3 credit hours)**Career Development in Agriculture**

Includes essential aspects of career preparation, entry, adjustment, and advancement in agriculture and related fields. Lecture: 3.0 credits (45 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 235 (3 credit hours)**Field Crop Production**

Gain an understanding of the major U.S. field crops with emphasis on their growth requirements, development, uses, management, and physiology. Lecture/Lab: 3 credits (60 contact hours).

Pre-requisite: AGR 250.

Attributes: Technical

Components: LEC: Lecture

AGR 240 (3 credit hours)**Introduction to Animal Science**

Provides a limited overview of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production facilities. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 245 (3 credit hours)**Pest Management**

Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agricultural and horticultural crops. Discusses management techniques including chemical, biological, IPM, and organic methods. Lecture/Lab: 3.0 credits (60 contact hours).

Pre-requisite: AGR 250.

Attributes: Technical

Components: LEC: Lecture

AGR 250 (3 credit hours)**Introduction to Plants/Crop Production**

Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as plant disease and protection. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Attributes: Technical

Components: LAB: Laboratory, LEC: Lecture

AGR 255 (3 credit hours)**Crop Scouting**

Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Lecture/Lab: 3.0 credits (60 contact hours).

Pre-requisite: AGR 235.

Attributes: Technical

Components: LEC: Lecture

AGR 260 (3 credit hours)**Introduction to Sustainable Agriculture**

Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 265 (2 credit hours)**Agriculture Business and Records**

Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business structures, developing a business plan, budgeting and basic accounting principles, agriculture tax code, and record keeping. Lecture: 2.0 credits (30 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 270 (3 credit hours)**Introduction to Organic Agriculture**

Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 275 (3 credit hours)**Value Added Production**

Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture/Lab: 3.0 credits (60 contact hours).

Attributes: Technical

Components: LEC: Lecture

AGR 280 (3 credit hours)**Livestock Management**

Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Lecture/Lab: 3.0 credits (60 contact hours).

Pre-requisite: AGR 240.

Attributes: Technical

Components: LEC: Lecture

AGR 285 (3 credit hours)**Farm Financial Management**

Provides an overview of the basic concepts needed to understand commodity futures and option markets. Discuss risks and rewards, as well as other topics needed to successfully trade in these markets. Lecture: 3.0 credits (45 contact hours).

Pre-requisite: AGR 101.

Attributes: Technical

Components: LEC: Lecture

AGR 290 (3 credit hours)**Animal Nutrition**

Provides a basic understanding of nutrition and identify nutrient composition of feedstuffs and nutrient requirements of various species of livestock. Integrated Lecture/Lab: 3 credits (60 contact hours).

Pre-requisite: AGR 240.

Attributes: Technical

Components: LAI: Integrated Laboratory, LEI: Integrated Lecture

AGR 295 (1 credit hours)**Agriculture Capstone**

Designed to be taken by the agriculture student in their final semester as a programmatic review to bridge previous courses together. This course seeks to ensure students are ready to enter the workforce upon graduation as well as pass the capstone exam. Lecture: 1.0 credit (15 contact hours).

Pre- or co-requisite: Sophomore Standing, Final Semester.

Attributes: Technical

Components: LEC: Lecture