AGRICULTURAL SCIENCE (AGRS)

Courses

AGRS 100 Practical Crop Production 3 Credits
Production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production, and use covered.
Corequisites: AGRS 100L.
Terms Typically Offered: Fall.

AGRS 100L Practical Crop Production Laboratory 1 Credit
Production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production, and use covered.
Corequisites: AGRS 100.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 102 Agriculture Economics 3 Credits
Focus on economic principles applied to agriculture through price discovery with producer supply and consumer demand, governmental politics, rural development, and resource management.

AGRS 105 Animal Science 3 Credits
Fundamentals of livestock production. Principles of breeding, genetics, nutrition, health, and physiology of beef, sheep, swine, dairy, and horses. Focus on the animal science industry in general and each species industry in regard to history, current situation, and future.
Terms Typically Offered: Spring.

AGRS 108 Making Compost 3 Credits
Exploration of the microbiology behind composting and procedures for various types of composting. Evaluation of quality compost and its applications (including compost tea making) for soil health and plant fertility needs. Also included is making compost inoculants and fermenting plant juices for sustainable fertility applications.
Terms Typically Offered: Fall.

AGRS 110 Integrated Pest Management 3 Credits
Identification and control of economically important insects and diseases. Use of ecological systems management approach and concepts, including physical, biological and pesticidal control mechanisms.
Terms Typically Offered: Fall.

AGRS 118 Farm Structures and Green Houses 3 Credits
Safety, hand and power tool use, farm building planning and site location, concrete, farm building design and construction, and materials of construction. Greenhouse design, systems, management, and major greenhouse crops and their cultural needs.

AGRS 125 Agricultural Machinery and Technology 3 Credits
Emphasizes the safe operation, construction, purpose, maintenance, and adjustment of farm machinery.
Terms Typically Offered: Fall.

AGRS 131 Water and Irrigation: Principles and Practices 2 Credits
Exploration of water, soil, and plant relationships; water quality assessment; principles of irrigation, methods, and systems.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: AGRS 131L.
Terms Typically Offered: Spring.

AGRS 131L Water and Irrigation: Principles and Practices Laboratory 1 Credit
Exploration of water, soil, and plant relationships; water quality assessment; principles of irrigation, methods, and systems.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: AGRS 131.
Terms Typically Offered: Spring.
Fees: Yes.

AGRS 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

AGRS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

AGRS 205 Farm and Ranch Management 3 Credits
Practical experience in applying principles of economics, business, marketing, and finance to the management of a farm/ranch operation.
Terms Typically Offered: Spring.

AGRS 208 Agricultural Finance 3 Credits
Principles of finance and their application to agriculture and agribusiness, including: the time value of money, net present value analysis, interest, credit lending institutions, financial statements, and financial ratios.
Terms Typically Offered: Spring.

AGRS 210 Agricultural Marketing 3 Credits
Applied study of the agricultural marketing system. Methods of marketing crops and livestock. Hedging with futures and options will be covered along with direct sales marketing and building a business brand.
Terms Typically Offered: Spring.

AGRS 224 Integrated Ranch Management 3 Credits
Management pertaining to the economics of a ranching enterprise. Includes principles of system management, resource inventory and management, ranch decision making, nutrition, selection, record keeping, financial management, and marketing.

AGRS 225 Feeds and Feeding 4 Credits
Basic nutrients, common feeds and feed additives, anatomy of digestive systems, and basic feeding practices for beef, sheep, and dairy. Lab devoted to calculating and balancing rations to fulfill nutrient requirement of farm animals for growth, finishing, reproduction, lactation, work, and wool production. Explores least cost ratio balancing.
Terms Typically Offered: Fall.

AGRS 230 Farm Animal Anatomy and Physiology 3 Credits
Introduction to basic concepts of farm animal anatomy and physiology. Emphasizes nutrition, reproduction, immunology, and growth of the basic farm species. Anatomy and physiology is taught in the context of applying basic principles to production practices in the industry, including reproductive management, livestock nutrition management, and animal health practices.
Prerequisites: AGRS 105.
Terms Typically Offered: Spring.

AGRS 240 Introduction to Soil Science 3 Credits
Formation, physical properties, chemical properties, and management of soils, emphasizing conditions affecting plant growth. Defining the components of soil health and how to manage them.
Prerequisites: AGRS 100.
Corequisites: AGRS 240L.
Terms Typically Offered: Fall.

AGRS 240L Introduction to Soil Science Laboratory 1 Credit
Formation, physical properties, chemical properties, and management of soils, emphasizing conditions affecting plant growth. Defining the components of soil health and how to manage them.
Prerequisites: AGRS 100.
Corequisites: AGRS 240.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 250 Live Animal and Carcass Evaluation 1 Credit
Exploration of meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit.
Prerequisites: AGRS 105.
Corequisites: AGRS 250L.
Terms Typically Offered: Spring.

AGRS 250L Live Animal and Carcass Evaluation Laboratory 2 Credits
Exploration of meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit.
Prerequisites: AGRS 105.
Corequisites: AGRS 250.
Terms Typically Offered: Spring.

AGRS 260 Plant Propagation 3 Credits
Theory, biology, and practical applications of plant propagation technologies. Propagation by seed, cuttings, budding, grafting, and layering. Propagation environment, techniques of stock plant management, and seed handling along with production calculations and a complete production calendar will be investigated.
Terms Typically Offered: Spring.

AGRS 265 Integrated Plant Health Management 3 Credits
Multi-faceted approaches to the management of plant health through analysis of soil characteristics, nutrients, irrigation, and integrated pest management techniques for reducing pest susceptibility and enhancing crop production yield and quality.
Prerequisites: AGRS 100/AGRS 100L.

AGRS 288 Livestock Practicum 3 Credits
Experiential learning with beef cattle, dairy cattle, swine, and sheep.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 293 Cooperative Experience/Internship 5 Credits
Employment in an agricultural production setting. Work experience in all facets of the operation. Guidance and supervision is the responsibility of the supervising employer and Coordinator of Production Agriculture. Emphasis on records, managerial decisions, and production agriculture skills.
Terms Typically Offered: Summer.

AGRS 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

AGRS 296 Topics: 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.