

AGRICULTURE

The **Associate of Applied Science in Agriculture** focuses on the general principles and practice of agricultural research and production and prepares individuals to apply this knowledge to the solution of practical agricultural problems. The curriculum includes instruction in basic animal, plant, and soil science as well as agricultural business.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

- Agriculture - Associate of Applied Science (<https://senmc-public.courseleaf.com/academic-programs/associate-degree-certificate-programs/agriculture/agriculture-aas/>)

AEEC 1110 Introduction to Agricultural Economics and Business 3 Credits (3)

This course is an orientation to agricultural economics and business through the discovery process for the consumer in the food, fiber, and natural resource sectors of the global economy. The course discusses the application of micro-and macro-economic principles as they relate to agricultural economics and business. Repeatable: up to 3 credits.

Learning Outcomes

1. Gain a broad understanding of the role of the consumer in the marketplace for agricultural commodities, producers, agencies and the global market structure.
2. Apply introductory economic principles to applied global situations.
3. Employ economic concepts in the application of production level decision making.
4. Employ economic principles to the basic and global agricultural community.
5. Understand relationships that exist between producers and consumers.

View Course Outcomes

AEEC 2110 Principles of Food and Agribusiness Management 3 Credits (3)

This course introduces business management theory and application of theory related to businesses within the food and fiber supply chain. Topics include management and financial principles, market planning, and organization theory. Repeatable: up to 3 credits.

Learning Outcomes

1. Demonstrate, refine and expand written and oral communication skills
2. Develop an understanding of basic financial statements, their use and analysis
3. Understand the roles management and management styles play in modern agribusiness
4. Learn about the history of agribusiness domestically and internationally
5. Integrate the role of technology into modern agribusiness management

View Course Outcomes

AGRO 2160 Plant Propagation 3 Credits (3)

Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques. Crosslist: HORT 2160. (2+2P)

Learning Outcomes

1. Practical methods of propagating plants by seed, cuttings, layering, grafting, division, and tissue culture through experiential, "hands-on" laboratories.
2. Relevant physiological principles involved in propagating horticultural plants through lecture discussions and readings.

View Course Outcomes

ANSC 1120 Introduction to Animal Science 3 Credits (3)

Survey of the livestock industry throughout the world. Basic management practices will be covered, including livestock selection, nutrition, reproduction, anatomy and marketing to the consumer. This course will also discuss animal behavior and welfare.

Learning Outcomes

1. Understand the role of farm animals in a global setting.
2. Describe the role of nutrition, breeding, behavior, welfare, and physiology of livestock in the world.
3. Explain the structure and organization of livestock industries.
4. Discuss concepts and terminology of the livestock industries as they relate to the global perspective.
5. Classify the overall management, care, marketing of animals, represented in the various livestock industries.

View Course Outcomes

ANSC 1120L Introduction to Animal Science Laboratory 1 Credit (1)

Students will observe and participate in activities related to farm animal management and will include areas of livestock selection, nutrition, reproductive physiology, animal ID and animal health. This lab is required for animal science majors. (2P)

Prerequisite(s)/Corequisite(s): ANSC 1120

View Course Outcomes

ANSC 2330 Animal Production 3 Credits (3)

Production and utilization of beef cattle, sheep, and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market. (2+2P)

Learning Outcomes

1. Increasing the understanding of meat animal production.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat animal production to global situations.
4. Gain a broader understanding of the importance of meat animals in the global food system.

View Course Outcomes

AXED 1130 Techniques in Agricultural Mechanization 3 Credits (3)

Development of competencies in agricultural mechanics including safety, tool identification, operation and maintenance of hand and power tools, cold metal, drafting, and plumbing procedures. Designed for any major wishing to improve mechanical skills needed in agriculturally related occupations in education and industry. (2+2P)

Learning Outcomes

1. To understand basic drafting language used in orthographic and isometric drawings.
2. To develop an understanding of the proper use and safety of basic hand and power tools.
3. To develop skills needed to operate basic hand and power tools correctly.
4. To develop an understanding of surveying methods and building layout for construction.
5. To develop an adequate level of competence in workshop techniques.
6. To prepare students to properly teach and demonstrate these techniques to others who may use them as a means of earning a living.

View Course Outcomes

BCIS 1110 Fundamentals of Information Literacy and Systems 3 Credits (3)

Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communications, data analysis, information management and decision-making.

Learning Outcomes

1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
3. Evaluate bias, accuracy and relevance of information and its sources.
4. Use productivity tools for communications, data analysis, information management and decision-making.
5. Describe and use current information systems and technologies

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BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution 3 Credits (3)

This course is an introduction to the dynamic processes of living things. Major topics include the mechanisms of evolution, biological diversity, Mendelian genetics, and ecology.

Prerequisite(s)/Corequisite(s): grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215

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BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory 1 Credit (1)

This laboratory course is an introduction to the dynamic processes of living things. This course introduces students to the methods used in the study of Mendelian genetics, evolution, ecology, and biological diversity. Designed for students continuing in life sciences.

Prerequisite(s)/Corequisite(s): BIOL 2610G; grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215

Learning Outcomes

1. Describe and apply the scientific method to generate testable hypotheses in evolution and ecology.
2. Design and conduct laboratory experiments using relevant laboratory equipment and methods.
3. Analyze and report data generated during laboratory activities and experiments.
4. Communicate scientific results from experiments in evolution, ecology, and biodiversity.

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ECON 2110G Macroeconomic Principles 3 Credits (3)

Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies.

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ECON 2120G Microeconomic Principles 3 Credits (3)

This course will provide a broad overview of microeconomics.

Microeconomics is the study of issues specific to households, firms, or industries with an emphasis on the role of markets. Topics discussed will include household and firm behavior, demand and supply, government intervention, market structures, and the efficient allocation of resources.

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MATH 1215 Intermediate Algebra 3 Credits (3)

A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems.

Prerequisite(s): adequate scoring on the Mathematic Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in CCDM 113 N or CCDM 114 N

Learning Outcomes

1. Demonstrate appropriate use of basic function language and notation.
2. Convert between equivalent forms of algebraic expressions.
3. Solve single-variable equations of the types listed above.
4. Interpret and communicate algebraic solutions graphically and numerically.
5. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
6. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.

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POLS 1120G American National Government 3 Credits (3)

This course explains the role of American national government, its formation and principles of the Constitution; relation of state to the national government; political parties and their relationship to interest groups. This course also explains the structure of the legislative, executive, and judicial branches.

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WELD 105 Introduction to Welding 3 Credits (3)

Welding practices, procedures, and terminology. Welding safety, equipment types, electrode types in usage, joint design and testing procedures.

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