

AGRIBUSINESS SCIENCE & TECHNOLOGY

Associate in Applied Science (AAS)

Program Code: 10-006-2

Total Credits: 61-62

Mid-State's Agribusiness Science & Technology program prepares students to be owners or employees of a farm business in all sectors of the agriculture industry or work in businesses that support the agriculture industry. The program includes dairy and livestock management and traditional crop production. You'll learn to develop a nutrient management plan, calculate cost of production, and develop a long-term facility and equipment plan as well as a farm business plan. Hands-on experiences include taking soil samples; identifying diseases, insects, and weeds that impact profitability; and working with livestock nutrition and management. Graduates obtain a private pesticide applicators certificate.

To learn more about this program, visit mstc.edu/programs.

ACADEMIC ADVISOR

To schedule an appointment with an academic advisor, call 715-422-5300. Academic advisors will travel to other campuses as necessary to accommodate student needs. For more information about advising, visit mstc.edu/advising.

NEW STUDENT CHECKLIST

Complete the following steps to prepare for your New Student Advising appointment with your academic advisor:

- Submit a Mid-State application at mstc.edu/apply.
- Send official transcripts to:
Mid-State Technical College
Student Services
500 32nd Street North
Wisconsin Rapids, WI 54494
- Complete the Free Application for Federal Student Aid (FAFSA) at fafsa.gov. Mid-State's Financial Aid team is available to assist with your FAFSA application and to answer your financial aid questions. Contact Financial Aid or schedule an appointment at mstc.edu/financial-aid.
- Set up student MyCampus account at mstc.edu/mycampus-assistance.
- Schedule a New Student Advising appointment at mstc.edu/advising.

mstc.edu • 888-575-6782 • TTY: 711



Adams Campus • Marshfield Campus • Stevens Point Downtown Campus • Wisconsin Rapids Campus • Virtual Campus • AMETA® Center

Mid-State does not discriminate on the basis of race, color, national origin, sex, disability, or age in its program, activity, or employment. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Vice President - Human Resources; 500 32nd Street North, Wisconsin Rapids, WI 54494; 715-422-5325 • AAEO@mstc.edu. 3/2026-AC

CAREER PATHWAY



Career pathways help you build your education step by step. Each stage offers one or more credentials that are recognized by employers and lead to real jobs—and you can keep building toward your career goals as you go.

Begin at any point.

Prior Learning

Credit for Prior Learning

- Certifications and Licenses
- Military Experience
- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

Learn about Credit for Prior Learning at mstc.edu/cpl.

High School Credit

- High School Dual Credit
- Mid-State Fast Track

Learn about High School Credit at mstc.edu/dc.

Certificate

- Agronomy Equipment Basics (5 Credits)

Technical Diploma

- Livestock Technician (27 Credits)
Start Your Career: Animal Care Technician, Farm Manager, Herdsman, Livestock Technician, Ranch Manager

Associate Degree

- Agribusiness Science & Technology (61-62 Credits)
Start Your Career: Agricultural Manager, Agriculture Sales and Service, Herdsman, Production Agriculture Manager

Bachelor's Degree

For those interested in continuing their education, Mid-State offers transfer guides with various four-year colleges and universities. For more information, visit mstc.edu/transfer.

Other Options

Related Programs: Advanced Meat Cutting and Butchery, Agronomy Technician, Arborist Technician, Farm Operation, Utility Tree Trimmer

OUTCOMES

Employers will expect you, as an Agribusiness Science & Technology graduate, to be able to:

- Create a crop management plan.
- Develop an agribusiness management plan.
- Apply economic and marketing strategies to agribusiness industry.
- Apply relevant technologies.
- Create a livestock management plan.
- Investigate opportunities in agribusiness.
- Interact as a professional in agribusiness.

TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Faculty will let students know when and how the TSA is being assessed in the program.

TECHNICAL STANDARDS

Students enrolled in the Agriculture Program must be able to meet the established technical standards identified below, which reflect those found in the profession.

- Ability to lift, carry or transport supplies, equipment, feeds, animals or other agricultural products, potentially up to or beyond 50 pounds, with occasional, frequent, or constant exertion.
- Ability to detect and respond to emergencies and operational hazards in agricultural environments (machinery, livestock, chemicals, weather, etc.).
- Sufficient endurance, strength, mobility, balance, flexibility and coordination to perform tasks such as tending livestock, operating equipment, working outdoors, and executing emergency or protective procedures.
- Sufficient sensory (auditory, visual, smell, tactile) ability to detect animal cues, environmental changes, product quality, equipment status, and safety-related conditions.

STUDENT HANDBOOK

Visit mstc.edu/studenthandbook to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. Some students are exempt from this requirement. Please see your academic advisor for more information.

ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum placement scores.

College Reading and Writing 1 10831104

3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

Pre-Algebra

10834109

3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

MULTIPLE MEASURES

Students can place into courses using high school GPA and completed classes. Placement can be determined in the following ways:

- **Multiple Measures Writing (MMW)**
High school GPA of 2.6 & successful completion of 2.0 credits of high school writing courses with a "C" or better
- **Multiple Measures Reading (MMR)**
High school GPA of 2.6 & successful completion of 2.0 credits of high school literature courses with a "C" or better
- **Multiple Measures Math 1 (MMM_1)**
High school GPA of 2.6 & successful completion of 1.0 credit of high school math (Algebra 1 or equivalent) with a "C" or better
- **Multiple Measures Math 2 (MMM_2)**
High school GPA of 2.6 & successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better
- **Multiple Measures Science 1 (MMS_1)**
High school GPA of 2.6 & successful completion of 1.0 credit of high school lab science course with a "C" or better
- **Multiple Measures Science 2 (MMS_2)**
High school GPA of 2.6 & successful completion of 1.0 credit of high school chemistry with a "C" or better

Past high school and college transcripts are used in making course placement decisions.

SAMPLE FULL-TIME CURRICULUM OPTION

Agribusiness Science & Technology • 61-62 Total Credits

Term 15 Credits	Course Number	Course Name	CPL	Credits
	10093101	Integrated Pest Management	Yes	2
	10093102	Intro to Precision Agriculture	No	3
	10091105	Animal Health	No	3
	10103106	Microsoft Office-Introduction	Yes	3
	10093104	Principles of Crop Management	No	3
	10890102	GPS for Student Success	Yes	1

Term 14-15 Credits	Course Number	Course Name	CPL	Credits
	10801195 or 10801136	Written Communication or English Composition 1	Yes	3
	10804107 or 10804118	College Mathematics or Intermediate Algebra with Applications	Yes	3 or 4
	10006102	Agribusiness Equipment and Facilities	No	2
	10090101	Agriculture Business Management	No	3
	10006103	Introduction to Food Science	No	3

Term 16 Credits	Course Number	Course Name	CPL	Credits
	10801198 or 10801196	Speech or Oral/Interpersonal Communication	Yes	3
	10806114	General Biology	No	4
	10091106	Applied Animal Nutrition	No	3
	10091102	Intro to Animal Science	No	3
	10080105	Intro to Soil Science	No	3

Term 16 Credits	Course Number	Course Name	CPL	Credits
	10102178	Personal Finance	Yes	3
	10809198 or 10809188	Introduction to Psychology or Developmental Psychology	Yes	3
	10809166	Introduction to Ethics: Theory & Application	Yes	3
	10006107	Agriculture Commodities & Marketing	No	3
	10091104	Introduction to Animal Genetics	No	2
	10006007 or 10006110	Agriculture Internship or Agriculture Capstone	No	2

Please Note

- Credit for Prior Learning (CPL) options are available for some courses. You can visit mstc.edu/cpl or contact your academic advisor for details.
- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- Program completion time may vary based on student scheduling and course availability. For details, go to mstc.edu/schedule.
- Get the latest updates online at mstc.edu.

SAMPLE PART-TIME CURRICULUM OPTION**Agribusiness Science & Technology • 61-62 Total Credits**

Term 10 Credits	Course Number	Course Name	CPL	Credits
	10093102	Intro to Precision Agriculture	No	3
	10091105	Animal Health	No	3
	10103106	Microsoft Office-Introduction	Yes	3
	10890102	GPS for Student Success	Yes	1
Term 8-9 Credits	Course Number	Course Name	CPL	Credits
	10804107 or 10804118	College Mathematics or Intermediate Algebra with Applications	Yes	3 or 4
	10006102	Agribusiness Equipment and Facilities	No	2
	10090101	Agriculture Business Management	No	3
Term 8 Credits	Course Number	Course Name	CPL	Credits
	10093101	Integrated Pest Management	Yes	2
	10093104	Principles of Crop Management	No	3
	10801198 or 10801196	Speech or Oral/Interpersonal Communication	Yes	3
Term 8 Credits	Course Number	Course Name	CPL	Credits
	10801195 or 10801136	Written Communication or English Composition 1	Yes	3
	10006103	Introduction to Food Science	No	3
	10091104	Introduction to Animal Genetics	No	2
Term 9 Credits	Course Number	Course Name	CPL	Credits
	10091106	Applied Animal Nutrition	No	3
	10091102	Intro to Animal Science	No	3
	10080105	Intro to Soil Science	No	3
Term 10 Credits	Course Number	Course Name	CPL	Credits
	10809166	Introduction to Ethics: Theory & Application	Yes	3
	10006107	Agriculture Commodities & Marketing	No	3
	10806114	General Biology	No	4
Term 8 Credits	Course Number	Course Name	CPL	Credits
	10102178	Personal Finance	Yes	3
	10809198 or 10809188	Introduction to Psychology or Developmental Psychology	Yes	3
	10006007 or 10006110	Agriculture Internship or Agriculture Capstone	No	2

Agribusiness Equipment & Facilities

10006102

2 credits

Examines arrangement and design of efficient farm buildings and equipment as well as construction requirements. Farmstead planning includes mapping of present facilities as well as evaluating usefulness and planning long and short-range goals for farmstead changes to improve economics, safety, efficiency and aesthetics. Environmental factors and animal wellness needs are identified, including space, ventilation, nutrition, and care. Also examines the appropriate use and care of feed, fertilizer, planting and harvesting equipment, and dairy and livestock equipment and facilities. Possible equipment/facility changes are discussed and business expansion is analyzed.

Agriculture Business Management

10090101

3 credits

Examines the farm business as a complex set of enterprises that all need to be managed effectively to be successful and sustainable. Students learn to develop a business plan, set short- and long-term goals, identify and implement alternatives for reaching goals. Includes strategies and tools to monitor success. Students also learn to organize and maintain farm business records as well as how to interpret and analyze the records to make sound farm management decisions.

Agriculture Capstone

10006110

2 credits

This project-based course gives students the opportunity to demonstrate technical competency of agribusiness classroom study. The project simulates many of the tasks students are expected to perform as an agricultural professional. A capstone research paper and portfolio will be due at the end of this course.

Prerequisite: Instructor approval

Agriculture Commodities & Marketing

10006107

3 credits

This course introduces students to agricultural commodity markets with a focus on price analysis, market structures, marketing strategies, and risk management. Topics include supply and demand, government policies, international trade, and the agricultural supply chain. Students will study major field crops, livestock, and milk markets; explore the role of cooperatives in marketing; and learn how futures and options markets function as tools for price discovery and risk management.

Agriculture Internship

10006007

2 credits

This course provides an opportunity for students to apply concepts of agribusiness classroom study with specific off-campus real-life agricultural experiences at local employers. An organized plan of experiences built around agriculture competencies is planned, supervised, and evaluated by the instructor and cooperating business supervisor.

Prerequisites: Admission to the Agribusiness and Science Technology or Agronomy Technician program and completion of at least 12 credits of agriculture course work in the areas of 10006, 10070, 10080, 10090, 10091, or 10093.

Animal Health

100091105

3 credits

This course provides students with the essential knowledge and practical skills required to maintain and promote the health of dairy and livestock animals. Emphasizing preventive care, early disease detection, and effective treatment strategies, students will explore animal physiology, common infectious and non-infectious diseases, vaccination protocols, biosecurity practices, and the responsible use of medications.

Applied Animal Nutrition

10091106

3 credits

Includes classification and function of nutrients, deficiency symptoms, characterization of feedstuffs, and formulation of diets for domestic animals. They are also able to successfully understand the digestive processes of monogastric and ruminant animals.

College Mathematics

10804107

3 credits

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

Prerequisite: High School GPA of 2.6 and MMM_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better

Developmental Psychology

10809188

3 credits

Studies human development throughout the lifespan and explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills enable students to gain an increased knowledge and understanding of themselves and others.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

English Composition 1

10801136

3 credits

Learners develop and apply skills in all aspects of the writing process. Through a variety of learning activities and written documents, learners employ rhetorical strategies, plan, organize and revise content, apply critical reading strategies, locate and evaluate information, integrate and document sources, and apply standardized English language conventions.

Prerequisite: High School GPA of 2.6 and MMW or Accuplacer Writing of 262 or Accuplacer Reading 253 or ACT English score of 20 or ACT Reading 21 or completion of College Reading and Writing 1 10831104 with a "C" or better

General Biology

10806114

4 credits

Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to diversity among the various kingdoms.

Prerequisite: High School GPA of 2.6 and MMS_1, MMM_1; Accuplacer QAS 246 or ACT Math 19 or Accuplacer Reading Skills of 249 or ACT Reading score of 15

GPS for Student Success

10890102

1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

Integrated Pest Management

10093101

2 credits

An effective and environmentally sensitive approach to pest management. Learners explore various approaches in integrated pest management (IPM) and gather information on the life cycles of pests and their interactions with the environment. This information in combination with available pest control methods are used to identify the most economical pest management options, with the least possible hazard to people, property, and environment.

Intermediate Algebra with Applications

10804118

4 credits

This course offers algebra content with applications. Topics include properties of real numbers; order of operations; algebraic solution for linear equations and inequalities; operations with polynomial and rational expressions; operations with rational exponents and radicals; and algebra of inverse, logarithmic, and exponential functions.

Prerequisite: High School GPA of 2.6 and MMM_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better.

Intro to Animal Genetics

10091104

2 credits

This course introduces the genetic and genomic principles that influence animal health, performance, and productivity. Students will study how traits are inherited and how genetics and genomics can be used to improve dairy and livestock operations. Topics include trait inheritance, selection and mating systems, estimating breeding values, genomic testing, and understanding inbreeding, hybrid vigor, and crossbreeding. Emphasis is placed on applying genetics and genomics to real-world decisions that enhance animal health and production efficiency.

Intro to Animal Science

10091102

3 credits

Introduces the basics of livestock management. Examines management of dairy, beef, sheep, and other common livestock with concentration on nutrition, feedstuffs classification, reproduction, genetics, animal behavior, animal health, and sustainable agriculture practices. Includes basic husbandry and care procedures for animals. A livestock management plan will be created and analyzed.

Intro to Precision Agriculture

10093102

3 credits

Explores agricultural applications of GPS, yield monitoring systems, and mapping. Students learn to interpret maps generated by precision agriculture equipment. Learners experience setup, calibration and operation of equipment/software designed to support the production crop industry.

Intro to Soil Science

10080105

3 credits

Designed to provide students with fundamental knowledge of soil and soil composition. Includes study of soil types, formation factors, physical properties, biological properties, and basic soil chemistry. Units covering tillage, conservation, pH, soil management, plant nutrients, and fertilizer sources are also included. Students gain the skills required to interpret soil test reports and soil survey maps and recognize qualities of various soil types. Students perform soil sampling, residue measurements, compaction assessments, and soil loss determinations per crop rotation guidelines.

Introduction to Ethics: Theory & Application

10809166

3 credits

Provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives are used to analyze and compare relevant issues. Students critically evaluate individual, social, and/or professional standards of behavior, and apply a systemic decision-making process to these situations.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Introduction to Food Science

10006103

3 credits

Offers students unique opportunities to learn where their food supply comes from, how the food is produced, and how consumption is met on a global basis. Applying science principles to food production will enhance the student's ability to understand the phenomena of food production.

Introduction to Psychology

10809198

3 credits

This science of psychology course is a survey of multiple aspects of behavior and mental processes. It provides an overview of topics such as research methods, theoretical perspectives, learning, cognition, memory, motivation, emotions, personality, abnormal psychology, physiological factors, social influences, and development.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Microsoft Office-Introduction

10103106

3 credits

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 11 skills. Students may develop these skills in the Academic Learning Center while concurrently enrolled in this course.

Oral/Interpersonal Communication

10801196

3 credits

Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity, and other projects. The study of self, conflict, and cultural contexts will be explored, as well as their impact on communication.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or College Reading and Writing with a C or better

Personal Finance

10102178

3 credits

This course examines personal financial planning topics and best practices. Areas covered include financial record keeping, budgeting, consumer credit, investing, purchasing real estate, insurance, tax planning, retirement planning, and estate planning. Using financial tools, the student will learn how to develop and use a personal financial plan based on their own unique situation.

Principles of Crop Management

10093104

3 credits

The basic principles and concepts of sound agronomic practices are discussed for corn, soybeans, small grains, and forage crops grown in Wisconsin. All sound agronomy practices are emphasized for each crop area as it relates to cultural and other specific inputs of crop production, environmental factors, and sustainable systems.

Speech

10801198

3 credits

Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of this course. Includes informative, persuasive, and occasion speech presentations.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 253 and Writing of 262 or ACT of 21 Reading/19 English or completion of College Reading and Writing 1 10831104 with a "C" or better

Written Communication

10801195

3 credits

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.

Prerequisite: High School GPA of 2.6 and MMW or Accuplacer Writing of 262 or ACT English score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better