



Program Code 31-080-4
Expected Program Costs: \$3,800
Median Annual Salary: \$21,000

OVERVIEW

This program is designed for individuals who are farming or planning to farm as well as those involved in other areas of agriculture. Focusing on day-to-day farm operations, with a special emphasis on dairy farms in central Wisconsin, you'll learn about livestock and their products, including livestock diseases and prevention, quality milk and meat production.

Additional topics include soils, crop production and farm chemicals; farmstead and building planning (including electrical systems) and farm maintenance. Plus, you'll learn the latest "best business practices" for farming including how to manage farm records for valuable information; farm computerization; and critical need-to-know facts about financial credit, income tax law and marketing.

Farm Operation is a 36-week program and takes a minimum of two years to complete. The program is offered in two 18-week segments. Each segment is broken into three six-week terms, running from November to April every school year. Classes are scheduled from 10:00 a.m. - 3:30 p.m. allowing time to complete morning and evening farm work at home.

Farm Operation is offered at the Marshfield campus.

PROGRAM OUTCOMES

As a Farm Operation graduate, you will be able to:

- Balance rations for farm livestock
- Create and/or revise a business plan
- Implement appropriate farm safety practices
- Evaluate environmental and economic impacts of farm practices
- Discuss implications of farm practices on food safety
- Determine proper procedures used in the establishment, growing, harvesting and storage of crops
- Plan for operation and maintenance of facilities and equipment
- Set up or modify a livestock management plan
- Identify credit needs and develop a plan for financing the operation

CAREER OPTIONS

Agricultural Manager
Dairy Equipment Service Technician
Farming
Farm Hand
Farm Manager

Careers generally available to students who complete all program requirements.

ADMISSIONS PROCEDURES

To apply to the Farm Operation program, please submit the following documents to the MSTC Admissions Office:

1. Complete an MSTC application form and return it with the \$30 non-refundable application fee.
2. Submit an official copy of all academic transcripts, including high school, college or university and HSED/GED.

This program will deal with materials requiring average to high reading skills.

Students should be able to operate a calculator and understand basic math skills which deal with percentage, addition, subtraction, multiplication and division.

FUNCTIONAL ABILITIES

A list of specific physical, emotional and mental tasks needed to function in Farm Operations is available in the Student Affairs Office. It is the student's responsibility to notify the disability services coordinator in the Student Affairs Office to receive assistance.

Mid-State Technical College
Admissions
500 32nd Street North
Wisconsin Rapids, WI 54494

PROGRAM COURSE DESCRIPTION

10080101 // 1 credit

Soils

Soil formation and how it is managed is the basis of farming. This course deals with the development of soil; the major types of soil in Wisconsin; the role of organic matter; the effect of proper tillage; water and soil conservation practices and their role in economic crop production. USDA soil survey maps will be used to look at capabilities of different soils.

10080102 // 2 credits

Soil Fertility & Nutrient Management

Soil is the foundation on which farming is based. Studying soil testing, fertility, fertilizers and their economical use in crop production will be a major portion of this course. Nutrient Management Plans will be explored along with how they are used to record and help determine fertility and conservation needs for a farm.

10080110 // 1 credit

Animal Health

The student will learn basic knowledge about disease identification, prevention and treatment. Other topics include understanding animal health terminology, digestive and nutritional disorders, cow/calf management systems, bio-security and best management practices of animal health.

10080111 // 2 credits

Animal Reproduction

The student will learn and explain the proper management and care for a dairy herd to maximize profits and production. Emphasis is on the breeding of dairy cattle, with both genetic improvement and conception considered. Methods to prevent and treat reproductive diseases are discussed.

10080120 // 2 credits

Ruminant Animal Nutrition

This course deals with the practical day to day feeding of dry and lactating dairy cows, dairy heifers and dairy steers. The development of the digestion system and its function in nutrient metabolism and ration formulation is examined. Emphasis is placed on the role of quality forages in these rations.

10080140 // 3 credits

Farm Financial Analysis

This course identifies farm record keeping skills and provides the student the opportunities to develop these necessary business skills for operating a successful farm business. These skills include recording livestock and crop information, calculating depreciation and capital gains, gathering federal and state tax form information, calculating inventories, developing budgets, formulating yearly credit needs, and conducting a financial farm business analysis.

31080309 // 1 credit

Milk & Milk Products

Quality milk production, means of producing quality milk, and methods of determining quality are considered. Utilizing milk in various dairy products, and consumer demands and choices are studied.

31080310 // 2 credits

Raising Dairy Replacements & Dairy Beef

Selection, feeding, housing, disease control, and other recommended practices in raising dairy replacements are studied. Stresses the economics of dairy beef production, and how feeding and management of dairy beef differs from raising dairy replacements.

31080316 // 1 credit

Livestock Production

Swine feeding, breeding, housing, and management are studied. The breeding herd, feeder pigs, and market hogs are considered for each of the above. The beef enterprise is studied from selection and breeding of the cow herd to marketing the finished animal.

CURRICULUM

Term (5 credits)

10080101	Soils	1
31080316	Livestock Production	1
31080353	Forage Crops	2
31080390	Communications	1

Term (5 credits)

31080309	Milk & Milk Products	1
31080318	Farm Accounting	1
31080320	Farm Maintenance	2
31080347	Farm Chemicals	1

Term (5 credits)

10080120	Ruminant Animal Nutrition	2
31080322	Farm Business Planning	1
31080365	Farm Law	1
31080380	Farm Buildings & Dairy Cattle Housing	1

Term (5 credits)

10080110	Animal Health	1
31080352	Corn, Grain, & Seed Production	2
31080367	Marketing (Including Co-Ops)	1
31080372	Farm Computers	1

Term (5 credits)

10080102	Soil Fertility & Nutrient Management	2
10080140	Farm Financial Analysis	3

Term (5 credits)

10080111	Animal Reproduction	2
31080310	Raising Dairy Replacements & Dairy Beef	2
31080376	Economics of Farm Equipment	1

Total Credits 30

Please Note:

- The Farm Operation program has November, January and February start dates. We advise you to meet with an academic advisor or counselor to successfully plan your academic schedule.
- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- Degree completion time may vary based on student scheduling and course availability.

FARM OPERATION

31080318 // 1 credit

Farm Accounting

Introduces students to computerized accounting methods for effective farm operation.

31080320 // 2 credits

Farm Maintenance

Troubleshooting and problem solving the various maintenance issues that arise in farming operations. To include electrical, plumbing, fencing, machinery, and building maintenance and repair.

31080322 // 1 credit

Farm Business Planning

Students will develop a comprehensive business plan for a farm operation. To include labor plan, job descriptions, financial plan, and insurance requirements.

31080347 // 1 credit

Farm Chemicals

Pest identification (weeds-insects-plant diseases) and their control both by cultural means and chemical application are considered. Safety in the use of chemicals from a personal view and from an environmental aspect is emphasized.

31080352 // 2 credits

Corn, Grain, & Seed Production

Deals with the production of corn and small grains adapted to the area. Varieties and seed selection, planting and harvesting practices, fertilization, grain storage, and economical marketing of the crop are covered in detail.

31080353 // 2 credits

Forage Crops

Attention to the adaptation, management, and utilization of recommended varieties of grasses, and legumes, the establishment of both temporary and permanent pastures, the value of these crops as soil builders, and their use for feeding various classes of livestock.

31080365 // 1 credit

Farm Law

Procedures and practices to be followed in leasing and purchasing farms, methods of family farm transfer, and common legal problems that concern farmers. Emphasis is on preventing disputes and developing an awareness of when legal assistance is needed.

31080367 // 1 credit

Marketing (Including Co-Ops)

Designed to provide authoritative information on basic principles of marketing for products generally common to members of the class. When, where, and how to market products and related information such as regulation & supervision of marketing specific products, understanding market news, price cycles, and the use of cooperatives for marketing purposes are included.

31080372 // 1 credit

Farm Computers

Introduces the use of computers on the farm utilizing prepared farm programs on management. Identifies considerations as to need for a computer on the home farm and how to select the software and hardware.

31080376 // 1 credit

Economics of Farm Equipment

Machinery selection, needs and maintenance are discussed. Ownership and operating costs are calculated. Alternatives to ownership such as leasing and custom hire are compared. Includes a unit on safety.

31080380 // 1 credit

Farm Buildings & Dairy Cattle Housing

Arrangements and design of efficient farm buildings, as well as construction requirements. Farmstead planning includes mapping of present facilities as they exist, evaluating how useful they are, and planning long- and short-range goals for changes in the farmstead arrangement to improve economic, labor, and aesthetic values. Environmental needs of dairy cattle are identified. This includes space, ventilation, and insulation needs. Planning the dairy facilities to improve the labor efficiency and the opportunity for future expansion.

31080390 // 1 credit

Communications

Designed to teach or improve students' use of correct principles of writing, speaking, reading, and listening.