



Agriculture Center of Excellence Field Day Open House



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Welcome from the President | Dr. Jeannie Worden

Welcome to Northcentral Technical College's (NTC) Field Day at the Agriculture Center of Excellence. We are grateful that you are here to experience the only working dairy farm and learning laboratory in the Wisconsin Technical College System (WTCS). Through a unique collaboration of partners in the agriculture industry, government and education, the Agriculture Center of Excellence provides educational opportunities in agriculture related industries – preparing learners, local farmers and agri-business for the future of agriculture.

As a fully operational, 110-acre dairy farm, our Agriculture Center of Excellence provides students with the opportunity to translate knowledge gained in the classroom to hands-on learning experiences gained while working first-hand with animals, equipment and crops. Upon graduation from NTC's seven Agriculture related programs, our students are directly and positively impacting one of Wisconsin's most significant industry sectors.

We appreciate you taking the time to visit and/or learn more about the important work being done at the Agriculture Center of Excellence. Working collaboratively with local agri-business, the United States Department of Agriculture and community colleges across the Midwest, we are ensuring the long-term productivity, resilience and sustainability of the soil while positively impacting the future of agriculture.

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President, Northcentral Technical College

NTC's Agriculture Center of Excellence Staff



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Assistant Farm Manager



Stephen Krueger

Faculty, Crop Science



Taylor Polka

Assistant Farm Manager



Nicole Cruise

Instructional Assistant, Veterinary
Technician

About the Agriculture Center of Excellence

- Opened in 2011
- Located just north of NTC's Wausau campus on County Road K in the Village of Maine
- 110-acre site with cropland, pastureland, woodlands and wetlands
- Cow Barn Capacity: 60-65 animals
- Calf & Heifer Barn Capacity: 40-50 animals
- Student Engagement Center includes four classrooms, one lab classroom and one classroom/shop area
- The site is also home to NTC's Electrical Power Distribution and Gas Utility Construction and Service programs







Students performing soil sampling and assessing the field.



Students preparing the field for planting.



Test Plot Planting

In the spring of 2020, Northcentral Technical College developed a new research project in conjunction with Wisconsin's Natural Resources Conservation Service agency. Four test strips were developed with 1.5 acres per plot available for research and demonstration. A twenty foot grass walk/drive was placed around the strips to allow both students and the public accessibility to the research plots.

In 2021, cover crop and manure management have been the two main focuses of these test strips. A dribble system manure tanker was purchased, but due to a long waiting period we were unable to use this piece of equipment this year. Cover crops were interceded in August and we will wait for the results of this experiment.



Students setting up the no-till drill in preparation for planting crops.



Students mowing grass strips between fields.



Apple Orchard & Pollinator Plots

Another project completed in the fall of 2020 was planting a conventional apple orchard demonstration plot. These trees were grafted to semi-dwarf and standard root stock developed for Wausau, Wisconsin's hardiness zone. Trees were placed on a 15 foot square which might be typical of the standard apple tree orchard placement in the state of Wisconsin.

In the spring of 2021, a high density apple orchard test plot was planted. Trees were placed four feet apart with a 10 foot strip of grass placed between the rows. Two varieties were planted on B9 dwarf root stock. A three wire trellis system was erected to stabilize these trees.

With the help of Pheasants Forever, a three acre pollinator plot was planted in the spring of 2021 in an area adjacent to the apple tree test plot. A wide variety of grasses and flowers were included in this pollinator plot mix. We anxiously wait for results as this may take three years to really develop.





Agriculture Programs Offered at NTC

Agri-Business

ASSOCIATE DEGREE

Average Starting Salary:

\$25,480 - \$42,185

If you are interested in a career in agriculture but for various reasons you are not interested in production agriculture, agri-business may be your field. Studies in agriculture are combined with business courses to provide a foundation for a wide variety of employment opportunities. Classroom and hands-on instruction will prepare you for occupations within the agri-business sector.

Potential occupations include:

Agriculture Administrative Assistant, Agriculture Journalist, Breed Association Representative, Agriculture Laboratory Specialist, Agriculture Inspector, Agriculture Office Worker, Livestock Buyer/Seller/Owner, Agriculture Tourism, Agriculture Promotion, Agriculture Finance and Agriculture Product Sales and Marketing.

Crop Science (Agronomy)

ASSOCIATE DEGREE

Average Starting Salary:

\$24,960 - \$52,910

Agronomy is the area of agriculture that focuses on the principles and practices of crop production and field management. Production management centers on the science of strategically managing land, water, plants, labor and other inputs, such as seeds, nutrients, pesticides and machinery to produce food and fiber in a sustainable and profitable manner. Practical hands-on learning opportunities are infused with theory throughout the program. Studies include the four major categories of crop management: soil and crop management, pest management, nutrient management and water management. During the program, learners will actively manage 100 acres and complete an internship work experience.

Potential occupations include:

Cranberry Marsh Worker, Farm Laborer, Irrigation Worker, Harvest Worker, Seasonal Elevator Worker, Seasonal Pesticide Applicator Specialist, Sales Representative, Crop Scout, Crop Research Assistant, Custom Applicator, Crop Insurance Professional, Buyer-Crop Protectants, Field Supervisor and Field Crew Member.

Dairy Science

ASSOCIATE DEGREE

Average Starting Salary:

\$20,800 - \$40,000

The Dairy Science Associate Degree program provides a well-rounded, real-world understanding of the business of dairy production. Throughout the program, learners participate in a variety of activities at the farm. Classroom instruction is combined with hands-on learning opportunities to expose learners to a wide-range of farming practices. In addition, learners will complete two internship work experiences.

Potential occupations include:

Agriculture Product Sales and Marketing, Agriculture Promotion, Agriculture Tourism, Livestock Buyer/Seller/Owner, Agriculture Worker/Herdsman, Farm Owner, Artificial Insemination Technician, Breed Association Representative, Feed Mill Worker, Agriculture Inspector and Agriculture Laboratory Specialist.



Veterinary Technician

ASSOCIATE DEGREE

Average Starting Salary:
\$22,142 - \$25,822

The Veterinary Technician Associate Degree program will prepare learners with the skills necessary to provide medical and nursing care for a variety of animal species including dogs, cats, cattle, birds, pigs, small mammals, horses, and reptiles. Classroom instruction is combined with hands-on learning opportunities to expose learners to the essential functions and skills they will need to be successful in this career. Learners will have the opportunity to work closely with the NTC dairy farm operation and take several classes concentrating on dairy medicine and will also complete an internship in a veterinary practice to apply their learning in real world situations.

Potential occupations include:
Emergency Veterinary Technician,
Veterinary Technician and Veterinary
Assistant.

Crop Scout

TECHNICAL DIPLOMA

The Crop Scout Embedded Technical Diploma will prepare learners to inspect farm fields and record weed, insect, disease and other observations. Learners will locate, identify, and diagnose crop diseases or pest infestation areas that may impact crop yield while utilizing technology such as drone areal images, GPS, and hands-on inspection techniques throughout the program. Learners will use knowledge of growth stages in crops in order to predict potential problems during that stage of the growing season. This is an important role to help farmers make timely, informed and economical field crop decisions.

Potential occupations include:
Pesticide Application Specialist,
Custom Applicator, Agriculture Sales
Representative, Crop Research
Assistant, Crop Insurance Professional,
Field Supervisor and Crop Scout.

Agronomy

CERTIFICATE

The Agronomy Certificate is offered to help producers or aspiring agriculturalists learn skills and techniques that will help them become successful agriculturalists in the areas of crops and soils. This certificate may be of interest if you want to be more involved with agriculture and enjoy working outside with your hands and provides students with the basics of agronomy.

Equine Fundamentals

CERTIFICATE

This certificate is designed for learners interested in working with horses. Courses provide foundational knowledge in horse care skills. Learners will have the opportunity to interact with horses. Courses are offered in a flexible format using the online classroom environment along with hands-on labs.



Robotic Milking Machine - Lely Astronaut

Each cow is equipped with a collar with a small computerized chip that helps identify the cow and determine if it is her turn to be milked. A predetermined feed ration is dispensed as the cows are milked. Once they are finished milking, they are sprayed with a teat sanitizer and released back into the freestall barn. Information on each individual cow is recorded and stored in the software management system Time for Cows.



Robotic Feeder - Lely Vector

The Vector mixing and feeding robot is a self-contained battery-operated vehicle that is capable of automatically mixing and feeding a ration. The Lely Vector senses when it is time for a new feeding round. The mixing and feeding robot measures the feed height of a specific group of animals to determine when the ration needs to be supplemented, so there is never too much or too little feed available for the animals. Each group of animals is mixed and fed a specific ration based on their needs.



Robotic Calf Feeder - Lely Calm

Calves receive a collar with a transponder which is like a small computer chip that identifies each animal. When the calves enter the robotic milking shoot, the transponder is read. The feeder dispenses milk to each individual calf based on age. As the calves get older, the feeder begins to reduce the amount of milk fed to encourage the calves to eat more grain and drink more water.



FIELD DAY OPEN HOUSE

Stay tuned for information on next year's Field Day Open House Event.

Thank you for attending NTC's Field Day Open House Event!
We look forward to seeing you at our farm again soon.



United States
Department of
Agriculture

Natural Resources Conservation Service





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 www.ntc.edu/tour

Antigo:

■ Antigo, East Campus

Wood Technology Center of Excellence

312 Forrest Avenue
Antigo, WI 54409
715.623.7601

Medford:

■ Medford, West Campus

1001 Progressive Avenue
Medford, WI 54451
715.748.3603

Merrill:

■ Public Safety

Center of Excellence

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Merrill, WI 54452

Phillips:

■ Phillips, North Campus

1408 Pine Ridge Road
Phillips, WI 54555
715.339.4555

Spencer:

■ Spencer, Southwest Campus

808 N. Pacific Street
Spencer, WI 54479
715.659.5120

Wausau:

■ Wausau, Central Campus

Advanced Manufacturing & Engineering Center of Excellence

Center for Business & Industry

Center for Geriatric Education

Center for Health Sciences

1000 W. Campus Drive
Wausau, WI 54401
715.675.3331

Agriculture

Center of Excellence

6625 County Road K
Wausau, WI 54401
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Diesel Technology Center

3353 Geischen Drive
Wausau, WI 54401
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Wittenberg:

■ Wittenberg,

Southeast Campus

402 N. Genesee Street, Suite 3
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For more location
information visit
www.ntc.edu

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