CAREER IMPACT ACADEMY

2026-2027
Course Description Booklet

The Career Impact Academy was constructed to enhance and expand the available Career and Technical Education programs and courses for students across the region. The facility offers students the opportunity to explore and develop skills through hands-on, project-based learning in a building that was specifically designed with classroom labs and equipment to provide engaging and relevant learning.

Schedule Overview

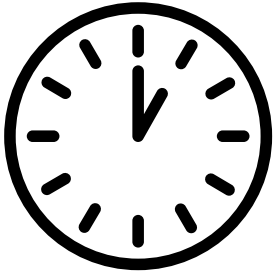
The bell schedule for the Career Impact Academy follows a block format, where students will complete a 90-minute class over two regular class periods. The start/end times of the Career Impact Academy courses have been selected to stagger with the regular high school bell schedule from the sending school to allow student to return to the home school in time for their next scheduled class.

Credit Options

Normally a 1 credit course would comprise of 50 minutes (1 class period) for the entire year, but will be completed at the Career Impact Academy in a semester. This allows the student to complete a second course in the program area in the spring semester, if desired. Dual Credit options are available for select courses.

Transportation

Students enrolled in the Career Impact Academy would spend a portion of their day at the facility to complete their CTE course, and the remainder of the day at their high school building. Transportation will be the responsibility of the sending school. There is a south side parking lot for any students that are allowed to drive themselves. A bus will be provided as a shuttle option for the Grand Forks schools. All bus dropoffs are located on the north side of the academy.



Block 1

8:00 - 9:30

Block 2

10:10 - 11:40

Block 3

1:00 - 2:30

Have Questions?

Eric Ripley, Executive Director of CTE
eripley270@mygfschools.org

Theresa Ostgarden, CTE Coordinator
tostgarden220@mygfschools.org

Student Voices

It's a great hands-on experience for young students that want to get a taste of the real world jobs. It's a great opportunity to have I would say because you learn a lot about things related to the work force. Don't be scared to try it out it's a great experience so far.

Jaren R.
Hillsboro
Precision Ag

My teacher is super nice and always makes sure that every student understands what is going on. I also love how hands on and interactive everything is.

Broedy B.
Central Valley
Sports Medicine

I enjoy the variety of careers present in the CIA. It gives students options, and helps them explore the field they are interested in. My class is fun. It has balance and also helps deepen my understanding of a CNA's job.

Daphnie L.
Grand Forks
CNA

I really enjoy my teacher who gives us the independence to figure things out for ourselves while giving us the help and aid we need. He also makes the class fun and enjoyable, the atmosphere relaxing and rather studious. The class and the CIA itself is really cool too.

Rylee R.
Grand Forks
Civil Engineering

I enjoy how many opportunities we have in class with all the sims and a very experienced teacher! We get to talk to guest speakers from different areas in the aviation industry and we also have a lot of field trip opportunities as well! I think the CIA is a great thing because you can explore careers that you might be interested in and then you can decide if you like them before fully committing in college!

Norah G.
Grand Forks
Aviation

Member School Districts

Central Valley | Grand Forks | Hatton | Hillsboro | Larimore | May-Port CG | Northwood | Thompson

Advanced Manufacturing

Advanced Manufacturing I

Grades 10 - 12 | 1 Credit | Semester

This course covers the fundamentals of automated manufacturing using robotics, sensors, and programming. Students focus on mechanical design, system integration, and control logic through hands-on projects. Teamwork, problem-solving, and technical skills are developed for careers in robotics and automation.

Advanced Manufacturing II

Grades 10 - 12 | 1 Credit | Semester

Prerequisite: Advanced Manufacturing I

This course builds on Advanced Manufacturing I, focusing on CNC machining and automation systems. Students convert digital designs into precision components and integrate robotics with CNC technologies. Projects emphasize programming, process control, and quality assurance for careers in advanced manufacturing and industrial technology.

Is This YOU?

- I enjoy building and creating
- I am a good problem solver
- I enjoy technology
- I am detail orientated

Aerospace

Aviation I

Grades 10 - 12 | 1 Credit | Semester

Aviation II

Grades 10 - 12 | 1 Credit | Semester

Prerequisite: Aviation I

This course introduces the fundamentals of flight, flight operations, navigation, weather, and aviation safety. Students explore aviation careers such as air traffic control, flight dispatching, and airport management. Math, science, and decision-making skills are integrated throughout hands-on, flight-related instruction.

Unmanned Aircraft Systems (UAS)

Grades 10 - 12 | 1 Credit | Semester

This course introduces recreational and commercial unmanned aircraft (UAS) operations and pilot responsibilities. Students learn airspace classifications, operating rules, weather effects, and performance considerations. The course prepares students with foundational knowledge of UAS applications in aviation.

Is This YOU?

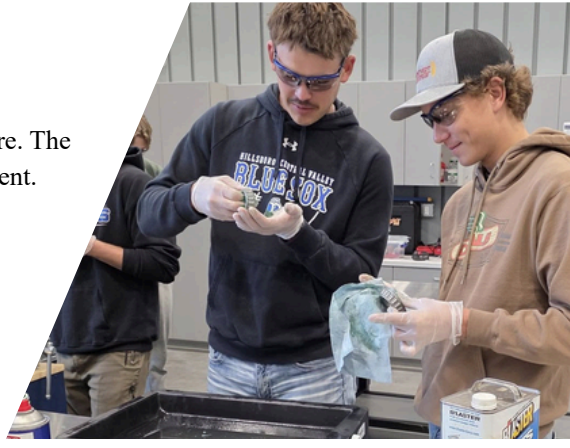
- Planes are my passion
- I am precise
- I am accurate
- I am interested in being part of the unmanned airspace

Agriculture

Precision Agriculture Technologies I

Grades 10 - 12 | 1 Credit | Semester

Students explore how technology improves efficiency and sustainability in modern agriculture. The course covers GPS, GIS mapping, drones, soil sensors, and data tools used in crop management. Hands-on projects emphasize data-driven decision-making and environmental stewardship.



Precision Agriculture Technologies II

Grades 10 - 12 | 1 Credit | Semester

Prerequisite: Precision Agriculture Technologies I

Precision Agriculture II will add to these tools and start analyzing real-world data to make accurate decisions, reduce waste, and increase sustainability. Through hands-on projects, they will create maps, plan variable rate applications, and practice precision planting.

Is This YOU?

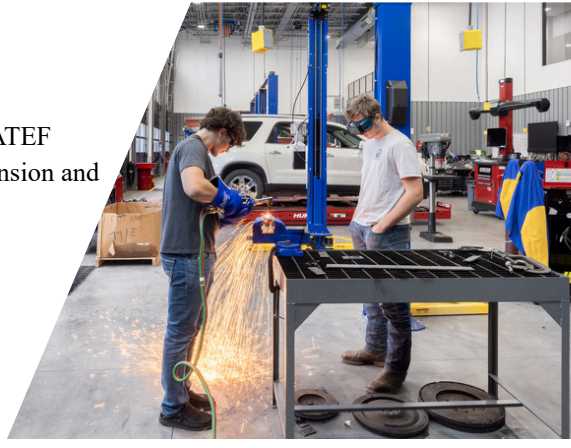
- I am interested in farming and related agriculture careers
- I like working with technology
- I solve problems with data
- I am precise

Automotives

Automotive Technology I

Grades 10 - 12 | 1 Credit | Semester

The General Service Technology program begins with an orientation to the eight areas of NATEF standardized programming - Engine Repair, Automatic Transmissions, Manual Drive, Suspension and Steering, Brakes, Electrical/Electronic Systems, Heating and Air Conditioning, and Engine Performance.



Automotive Technology II

Grades 11 - 12 | 2 Credits | Full Year

Prerequisite: Automotive Technology I

The second year consists of continuing orientation to Engine Repair, Automatic Transmissions, Manual Drive, Suspension and Steering, Brakes, Electrical/Electronic Systems, Heating and Air Conditioning, and Engine Performance. Course prepares students to be eligible for the national ASE certification.

Is This YOU?

- I love cars
- I have a mechanical aptitude
- I pay attention to detail
- I like to fix things

Building Trades

Construction Essentials
Grades 10 - 12 | 1 Credit | Semester

Construction Essentials is a hands-on, intermediate course focused on carpentry, electrical systems, HVAC, and plumbing. Students develop practical skills through projects, blueprint reading, and safety-based training to prepare for advanced coursework or entry-level careers in the building trades.

Building Trades
Grades 11 - 12 | 2 Credits | Full Year
Prerequisite: Introduction to Building Trades or Instructor Approval

This course is designed to provide basic work experience through classroom instruction a nd hands-on experience. Basic residential carpentry, plumbing, electrical, drywall, and other related aspects of the trades are studied and experienced by constructing a house. Whenever possible the similarities between residential and commercial construction will be noted.

Is This YOU?

- I like to work with my hands
- I can solve problems
- I have a good eye
- I enjoy seeing the results of my work

Culinary

Culinary Arts I

Grades 10 - 12 | 1 Credit | Semester

Culinary Arts I introduces students to the occupation concerned with the preparation and service of food. Contents may include opportunities in the food service industry, career maturity skills, safety and sanitation, organization of food preparation, menu planning, recipe selection, and food purchasing.

Culinary Arts II

Grades 10 - 12 | 1 Credit | Semester

Prerequisite: Culinary Arts I

Culinary Arts II continues training and includes topics on financial management, current issues in food service, legislation affecting the industry and its workers, and career maturity skills. The Culinary Arts program prepares students for college programs in food service.

Is This YOU?

- I love cooking and creating
- People can rely on me
- I can wear many hats
- I work well under pressure

Engineering

Introduction to Engineering Design

Grades 10 - 12 | 1 Credit | Semester

This course focuses on taking ideas through the engineering design process to production. Students learn core concepts of mechanical engineering, product design, and analysis. Using 3D design software, teams solve problems, document solutions, and communicate their designs.

Civil Engineering & Architecture

Grades 10 - 12 | 1 Credit | Semester

The major focus of the course is the development of a property site. The course covers the following: The Roles of Civil Engineers and Architects, Project Planning, Site Planning, and Building Design. Students will use a state of the art 3-D design software package to complete projects. Working in teams, students will learn about documenting projects, solving problems, and communicating solutions.

I've enjoyed the problem solving and friendly atmosphere of the class. Despite the difficulty of the material, it never felt particularly taxing due to the understanding teacher and pleasant classmates. The sense of accomplishment you feel when you push forward and learn something new, despite the challenges, is an addictive and spectacular feeling.
Alexander M, GFPS, Engineering

Principles of Engineering

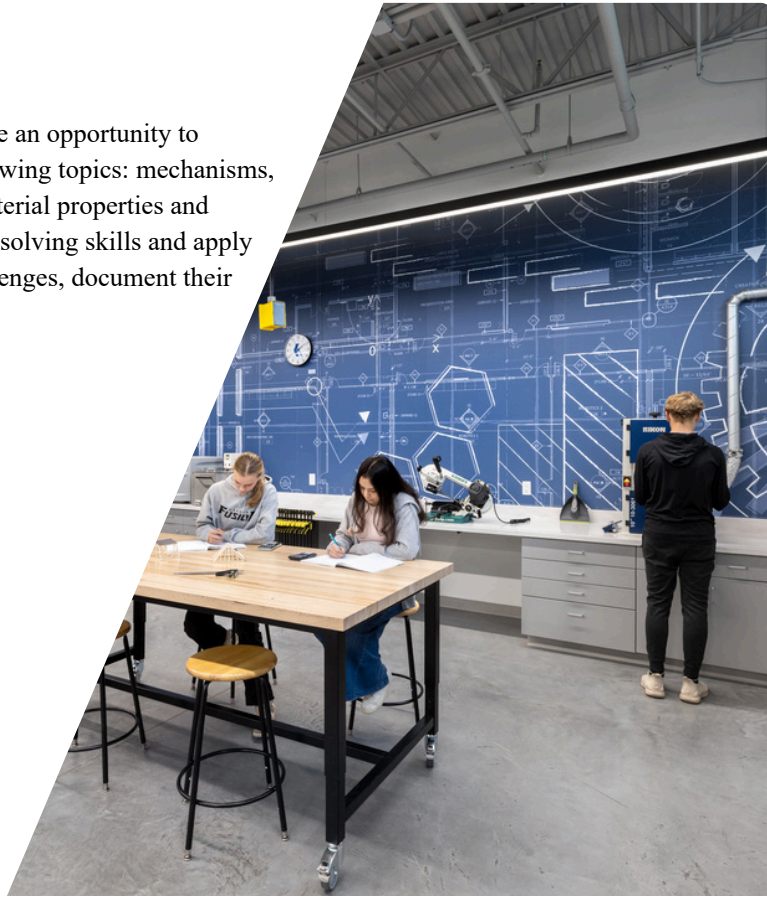
Grades 10 - 12 | 1 Credit | Semester

The class focuses on the major concepts of engineering. Students will have an opportunity to investigate engineering and high tech careers. This course covers the following topics: mechanisms, energy sources and applications, machine control, fluid power, statics, material properties and testing, and kinematics. Working in teams, students will develop problem-solving skills and apply their knowledge to research and design to create solutions to various challenges, document their work, and communicate solutions to other students.

All CIA Engineering Courses are
PROJECT LEAD THE WAY
PLTW

Is This YOU?

- I am logical and analytical
- I like to solve problems
- I like to figure out how things work
- I design and build solutions



Health Sciences

Intro to Medical Terminology

Grades 10 - 12 | ½ Credit | Semester | Online Course Only

This class is designed to introduce students to the health information technology field. Students will learn prefixes, suffixes and root words for medical terms. This will include meanings, spellings and pronunciations. Emphasis is on building a working medical vocabulary based on body systems. Students will also learn medical terminology as it relates to pathology, diagnostic, surgical, clinical and laboratory procedures, and common abbreviations and acronyms by body systems.

Dual Credit Medical Terminology

Grades 10 - 12 | ½ Credit | Semester | Online Course Only

Prerequisite: Students must be at least 16 years old by the first day of the course.

3 Credits (BOTE 171 Medical Terminology) at Lake Region State College

In this course, students will develop skills necessary for decoding of commonly used medical terms including the meaning of medical suffixes, prefixes, and word roots. Students will learn terminology associated with body systems, diseases, and disorders of those systems.

Intro to Medical Careers

Grades 10 - 12 | 1 Credit | Semester

Area Students Only (GFPS Students will complete this course at their home school)

The Health Careers course is designed to assist students interested in the medical field in determining an occuption that will best suit their capabilities and interests. The program uses a competency-based curriculum that is fundamental to a variety of careers in the health care industry.

Intro to Emergency Medical Services (EMS)

Grades 10 - 12 | 1 Credit | Semester

Teaches students how to respond to medical emergencies, including patient assessment, airway management, bleeding control, bandaging, lifting and transport, spinal immobilization, fracture stabilization, and responding to cardiac arrest. Legal and ethical responsibilities are also covered.

Sports Medicine

Grades 10 - 12 | 1 Credit | Semester

Prerequisite: Introduction to Medical Careers, Instructor Approval

Course students to the principles of sports medicine and athletic training. Students will learn essential tools to be able to prevent, recognize, manage injuries received as a result of participation in various activities, classify injuries, understand physiological response to injury, and the healing process. The student will learn basic taping techniques, first responder management, and universal precautions for infectious diseases.

Certification in American Heart Association CPR/BLS for Healthcare Providers, First Aid, and HIPAA.

Health Sciences

Certified Nursing Assistant (CNA) - HYBRID Option for Area Students

Grades 11 - 12 | 1 Credit | Semester

This course has been approved by the North Dakota Department of Health to prepare the student to take the CNA certification exam. This course is designed to teach the skills necessary to work as a CNA. It includes sixteen hours of clinical experience at local nursing homes. This course is in person but also available as a hybrid option for area students.

Medical Careers

Grades 11 - 12 | 2 Credits | Full Year

Prerequisite: Introduction to Medical Careers, Instructor Approval

For students who have completed the Intro course and want to learn more. This is a year-long block course. The student participates in tours of various local health care sites and spends nine weeks at clinical sites during the second semester. This allows the student to "try on" a variety of medical careers and settings. The class includes a deeper focus on issues such as anatomy and physiology, medical terminology, employability skills, legal and ethical responsibilities, communication, mental health, end of life needs, service learning projects, and wellness.

Health Sciences Student Voices

I've been enjoying the smaller amount of people in the building at once. It makes learning easier. Also, I really enjoy how comfortable and welcoming each classroom is!
Josie V.

I am enjoying how we get to go out into the community often and tour different places. It helps so that I can decide what medical career I want to go into.
Bailey T.

I love everything about the CIA. I love how we get to go do things like clinicals, activities, and present and tour around the community. I also love the change in scenery, and how we get to travel there it's really cool.
Michael D.

I enjoy the chance to get hands on experience that I wouldn't otherwise get the chance to do. I learn more from hands on then in classroom lecture.
Blasius N.

I enjoy the field trips we are able to take out in the community and the various speakers we get to listen to and learn from. I like the new technology I am able to use to learn and understand different topics.
Rylee B.

Is This YOU?

- I want to help others
- I am dependable
- I am good with other people
- I can show empathy to others
- I am patient

Requirement: Students must furnish their own transportation to work site and provide updated immunization record including Hepatitis B or a signed waiver and current COVID and influenza vaccines required by clinical sites.

Information Technology

Computer Hardware & Operating Systems

Grades 10 - 12 | 1 Credit | Semester | Dual Credit Available

This course covers fundamentals of computer and mobile device hardware, operating systems, security, and networking. Students learn to assemble computers, install operating systems, and troubleshoot using diagnostic tools. The course builds essential skills for entry-level IT technicians.

Cybersecurity Essentials

Grades 10 - 12 | 1 Credit | Semester | Dual Credit Available

This course introduces cybersecurity concepts, trends, and career opportunities. Students learn why cybersecurity is critical, especially in business and medical fields. The course explores how data is protected and how cyber threats impact individuals and organizations.

Advanced Placement Computer Science

Grades 11 - 12 | 1 Credit | Semester

The Computer Science A (CSA) course includes hands-on, structured lab experiences to engage students in problem solving using the Java programming language. CSA is designed with alignment to the AP Compter Science A exam.

Is This YOU?

- I enjoy working on computers
- I am logical
- I am patient
- I pay attention to details
- I am a gamer

Programming Essentials I

Grades 10 - 12 | 1 Credit | Semester | Dual Credit Available

This course introduces foundational programming concepts transferable across languages. Students learn logic, design, coding, and control structures through hands-on projects. Programming careers are explored while building communication, teamwork, and critical thinking skills.

Programming Essentials II

Grades 10 - 12 | 1 Credit | Semester | Dual Credit Available

This course builds on Programming Essentials I, expanding skills in logic, design, coding, and control structures. Students work with Blackbird code to learn arrays, conditionals, and loops. Additional units introduce another programming language, covering data types and object-oriented development.

Denotes courses that meet the following North Dakota requirements:

NDCC 15.1-21-02 - High Schools shall provide instruction in or make available one unit of computer science or cybersecurity.

NDCC 15.1-21-02.2 – High School Graduation Requirements; students are required to take one unit of computer science or cybersecurity (or complete a local school district integration plan). This course may satisfy one of the three existing science requirements or one of the three existing math requirements for high school graduation.

Work-Based Learning

Career Connection

Grades 10 - 12 | ½ Credit | Semester | Class can be completed up to 2 credits

Note: Students must be at least 16 years old and may be paid a wage by the employer.

This program provides supervised, scheduled employment to develop work skills aligned with students' career goals. Classroom instruction supports the work experience. A training agreement outlines expectations for the school, employer, student, and parents/guardians.

The instructor develops a training plan with the employer, including progress assessments and on-site visits. Students complete at least 40 worksite hours and 75 classroom hours to earn ½ credit, repeatable for up to 2 credits. Career-ready rubrics and employer competency lists are used for evaluation.

For additional information:

Paul Zettler
Work-Based Learning Coordinator
pzettler270@mygfschools.org

Is This YOU?

- I am ready to work
- I know my career interests
- I have completed CTE courses
- I am already employed

North Dakota Choice Ready | Scholarship

North Dakota Choice Ready

Essential Skills Indicators
Online Course (Medical Terminology)
Career Exploration Experience

Workforce Ready Indicators
CTE Coursework (3 credits)
Technical Assessment/Industry Credential
Work Based Learning
Dual Credit Course

Postsecondary Ready Indicators
Dual Credit Course
Advanced Placement (AP Computer Science)

Will you be North Dakota Choice Ready and Scholarship Ready?

Courses offered by the Career Impact Academy help you meet the requirements of both!

North Dakota Choice Ready

North Dakota Scholarship

Essential Skills Indicators
Online Course (Medical Terminology)
Career Exploration Experience

Workforce Ready Indicators
4 Credits of CTE (*with 2 Credits in the same plan of study*)
Technical Assessment/Industry Credential
Work Based Learning
Dual Credit Course

Postsecondary Ready Indicators
Advanced Placement (AP Computer Science)

Career Impact Academy

4201 Career Drive

Grand Forks, ND 58203

701-746-2310

cia.gfschools.org

@grandforkscia