



CAREER AND TECHNICAL EDUCATION
Charlevoix-Emmet Intermediate School District



C T E

Welcome to Career and Technical Education in Char-Em ISD!

All schools within the Charlevoix-Emmet Intermediate School District offer a variety of experiences that help students explore careers and prepare for future education and the world of work.

Career and Technical Education is an essential component of the total educational system and is critical to our workforce development. This education for the work place has been called many things over the years – vocational education, technical education, career education, occupational education and workforce training. We call it Career and Technical Education, or CTE.

Career and Technical Education is provided in a variety of settings and levels, including awareness of different jobs at the elementary level, middle school career exploration, secondary CTE programs, post-secondary certificates and degrees, and whole community involvement – students and families, teachers and schools, and businesses and organizations. It includes academics, work experience, occupational training, career counseling and joint activities between business and education.

We appreciate the support of our local districts and communities in providing these opportunities to our students!

Sincerely,
Jim Rummer, Director of Career and Technical Education



Visit our website for complete CTE listings, program videos, and more!
charemid.org

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Courses can and do vary; view the latest course offerings at charemid.org.

Agriscience and Natural Resources

Are you a nature lover? Are you practical, curious about the physical world, and interested in plants and animals? Do you enjoy hunting or fishing? Do you like to garden or mow the lawn? Are you interested in protecting the environment? This could be your career path!

Careers in this path are related to agriculture, the environment, and natural resources. These include agricultural sciences, earth sciences, environmental sciences, fisheries, forestry, horticulture, and wildlife.

Locations:

Alanson High School
Ellsworth Community School
Petoskey High School

Related Occupations

Forestry	DNR Officer
Parks and Recreation	Park Ranger
Landscaping	Irrigation Specialist
Veterinary Science	Production
Farming	Agriculturalist
Florist	Greenhouse Technician
County Extension Agent	Biologist



As students start approaching the years when job interests come into focus, it's important to know that there are resources at hand to help guide conversations and career paths.

Audio Engineering and Video Editing

In Audio Engineering and Video Editing, students will dive into the world of audio mixing and editing their composition creations utilizing state-of-the-art technology and facilities. With access to pre-recorded clips and loops along with the ability to record their own voices and instruments, students will layer their tracks and produce master audio tracks in various projects and formats.

Whether singing vocals, or recording a narration for a documentary or business commercial, students will learn to reduce multiple recorded takes and edit them into one final take, to produce the highest quality possible. Students will also expand their talents and abilities by adding visual components to their audio to deliver a memorable experience for our students and their audiences.

Locations:

Harbor Springs High School



Related Occupations

Broadcast Technician
Sound Engineer
Recording Engineer
Cinematographer
Camera Operator
Videographer
Film and Video Editor
Recording Artist



Overall employment of broadcast, sound, and video technicians is expected to continue growing by more than 20 percent through 2030, much faster than the average for all occupations.

Automotive Technology

Automotive Technology courses are designed to provide students with knowledge and hands-on experience of the inner workings of an automobile and its maintenance schedule while meeting National Automotive Technicians Educational Foundation (NATEF) requirements.



Locations:

East Jordan High School
Petoskey High School

Related Occupations:

Auto Mechanic
Tune-up Specialist
Mechanical Engineer
Small Engine Repair
Auto Shop Manager
Insurance Adjuster

Technician:
Brake
Express Service
Oil Change
Tire
Auto Parts Sales



A sizable professional trades shortage exists in Michigan and is expected to continue. Wages for professional trades occupations are 45 percent higher than other occupations!

Aviation Science and Technology

Aviation Science and Technology allows students to learn what it takes to be a pilot, and also the skills needed for other important careers tending to aircraft and their facilities. Segment titles include aviation documentation; human factors; aerodynamics; airplane systems; aircraft performance; aviation meteorology; communication and flight information; flight planning; flight maneuvers; safety; and flight environment.

Locations:

Program hosted at Pellston Regional Airport,
with enrollment through Alanson Public Schools

Related Occupations:

Pilot
Aerospace Engineer
Air Traffic Controller
Flight Attendant
Aircraft Technician



Skilled trades provide family-sustaining careers and they encompass many more options for young men and women today than ever before.

Business Management and Administration

Business Management and Administration courses offer students a chance to use state-of-the-art equipment and software to prepare for the business world. Among other skills, students will learn computer literacy, word processing, and spreadsheet and database management.

Locations:

Beaver Island Community School
Boyne City High School
Boyne Falls High School
Central Lake High School
Charlevoix High School
East Jordan High School
Harbor Springs High School
Pellston High School
Petoskey High School

Related Occupations:

Accountant
Management Consultant
Social Media Manager
Financial Analyst
Market Research Analyst
Business Operations Manager
HR Specialist
Administrative Assistant
Loan Officer
Entrepreneur

CTE PETOSKEY CAREER & TECHNICAL EDUCATION

ACCOUNTING / BUSINESS / FINANCE



CTE provides students with real-world skills that they need to enter the workforce.

Construction Trades

Construction Trades courses are designed to provide students with theory as well as practical experience in all areas of construction. Students will be involved in the construction of a home from start to finish.



Locations:

Boyne City High School
Central Lake High School
Charlevoix High School
Pellston High School
Petoskey High School

Related Occupations:

Carpenter
Architect
Engineer
Draftsman
Realtor
Interior Designer
Developer

Mason
Plumber
Electrician
Painter
Floor Installer
Drywaller
General Contractor



CTE students are more likely to have a post-high school plan - including college - than other students. Just 2 percent of CTE students report they “don’t know” what they will do after high school.

Culinary Arts

Hospitality continues to be one of the largest industries offering employment at many income levels depending on ability, experience, and education. Designed to introduce students to the tourism, lodging, and food service industry, this program offers the opportunity to develop entry-level job skills sought after by employers.



Locations:

Boyne City High School
Petoskey High School

Related Occupations:

Hotel Management
Restaurant Management
Housekeeping
Catering Services
Chef/Prep Cook
Baker
Host/Hostess
Wait Staff
Butcher
Dietitian
Food Safety Inspector



96 percent of CTE concentrators in Michigan go on to postsecondary education or advanced training, military service or employment within six months of leaving high school. (careertech.org)

DRAFTING AND DESIGN TECHNOLOGY

Drafting courses are designed to introduce students to the fundamentals of drafting and commands and functions of the Computer-Aided Design and Manufacturing (CAD/CAM) system. Students complete a variety of projects using Computer Aided Design software.

Locations:

Charlevoix High School
East Jordan High School
Harbor Springs High School
Petoskey High School

Related Occupations:

Draftsman
Engineer
Architect
Contractor
Interior Designer
Landscape Designer



In Char-Em ISD, approx. 1,500 students are enrolled each year in 46 career tech courses in 11 public school districts.

Energy Fundamentals: Lineworker Training

This pre-apprenticeship program, for juniors and seniors, is a two-hour daily course for one full school year. Students learn basic yet essential concepts of working in the electrical field while developing skills and knowledge to work as a lineworker installing and repairing overhead lines. Students will learn about gas and electric transmission and distribution, quality control, nuclear and non-nuclear generation, academic competencies in STEM (science, technology, engineering and math), among other topics. Students will prepare to take the Energy Industry Fundamentals certification test. Training takes place in the classroom and at the Great Lakes Energy training facilities in Boyne City.

This partnership with Great Lakes Energy provides students with access to instructors directly in the field while still learning the standards set forth by the State of Michigan in this area. Students who successfully complete the program will be ready to apply directly to possible employers for an apprenticeship. Similarly, students may choose to attend a pre-apprenticeship program with a regional community college.

Locations:

Boyne City High School

Related Occupations:

Lineworker
Electrician
Power Plant Operator
Electrical Engineer



While the Lineworker Training Program is housed in Boyne City, it is open to any student in any district throughout Char-Em ISD, as are all CTE programs.

Graphics and Printing Technology

In this program, students will learn various ways to visually present information through hands-on experience in each phase of production and printed materials, web design, video materials and animation.



Locations:

Ellsworth High School
Harbor Springs High School

Related Occupations:

Advertising Designer
Animation Artist
Web Designer
Graphic Designer
Publisher
Bindery Operator
Photographer
Illustrator
Museum Curator/Tech



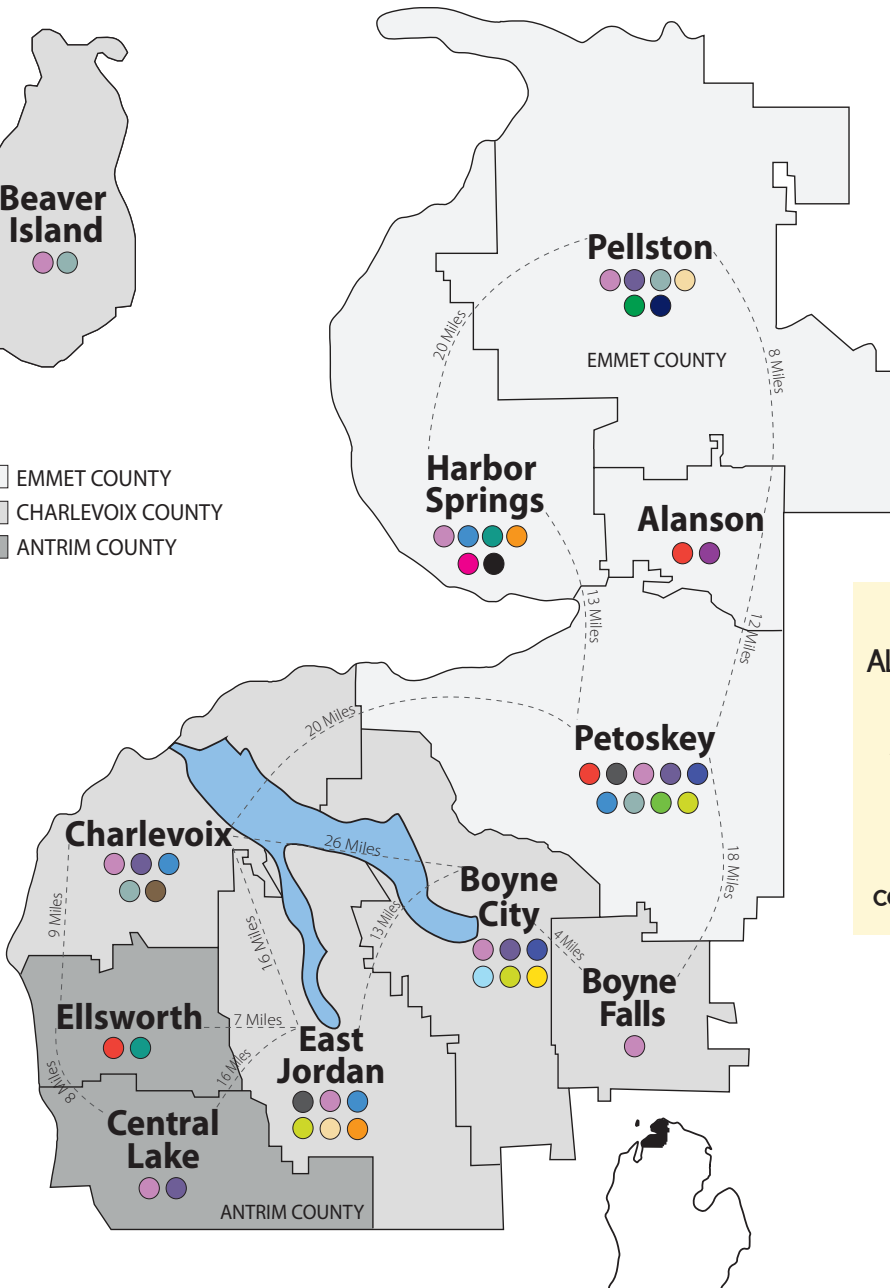
Career Staircase
QR code



Check out the “Step up to Success” Career Staircase! This interactive tool guides students and families through K-12 career and college readiness. Scan the code to check it out!



- EMMET COUNTY
- CHARLEVOIX COUNTY
- ANTRIM COUNTY



Students from
ALL Char-Em Districts
 can enroll in
ANY CTE Program
 in **ANY school!**

Ask your school
 counselor for details!

CTE Programs by District

ALANSON

- Agriscience and Natural Resources
- Aviation Science and Technology

BEAVER ISLAND

- Business Administration and Management
- Health Occupations

BOYNE CITY

- Business Administration and Management
- Construction Trades
- Culinary Arts
- Energy Fundamentals: Lineworker Program
- Marketing, Sales and Service
- TV and Film Production & Broadcasting

BOYNE FALLS

- Business Administration and Management

CENTRAL LAKE

- Business Administration and Management
- Construction Trades

CHARLEVOIX

- Business Administration and Management
- Construction Trades
- Drafting and Design Technology
- Health Occupations
- Machine Tool Technology

EAST JORDAN

- Automotive
- Business Administration and Management
- Drafting and Design Technology
- Marketing, Sales and Service
- Welding Technology
- Woodworking and Furniture Making

ELLSWORTH

- Agriscience and Natural Resources
- Graphics and Printing Technology

HARBOR SPRINGS

- Audio Engineering and Video Editing
- Business Administration and Management
- Drafting and Design Technology
- Graphics and Printing Technology
- Unmanned Vehicles
- Woodworking and Furniture Making

PELLSTON

- Business Administration and Management
- Construction Technology
- Health Occupations
- PowerSports Technology
- Public Safety
- Welding Technology

PETOSKEY

- Agriscience and Natural Resources
- Automotive
- Business Administration and Management
- Construction Trades
- Culinary Arts
- Drafting and Design Technology
- Health Occupations
- Information Technology
- Marketing, Sales and Service

Course descriptions, videos, and career tech initiatives:

www.charemisd.org

Health Occupations

In Health Occupations, students are introduced to the enormous and vast growing field of health care. The program involves students in a combination of classroom and clinical experiences. Courses are designed to prepare students with entry-level skills as well as post-secondary education and training.

Locations:

Beaver Island Community School
Charlevoix High School
Pellston High School
Petoskey High School

Related Occupations:

Physician
Nurse
Dietary Assistant
Radiologist
Occupational Therapist
Physical Therapist
Dental Assistant
Medical Assistant
Medical Records Clerk
Athletic Trainer
Surgical Technician
Medical Laboratory Technician
EMT/Paramedic



The Bureau of Labor Statistics (BLS) projects 18% growth within the health care industry through 2026, leading to the addition of 2.4 million health care jobs.

Information Technology

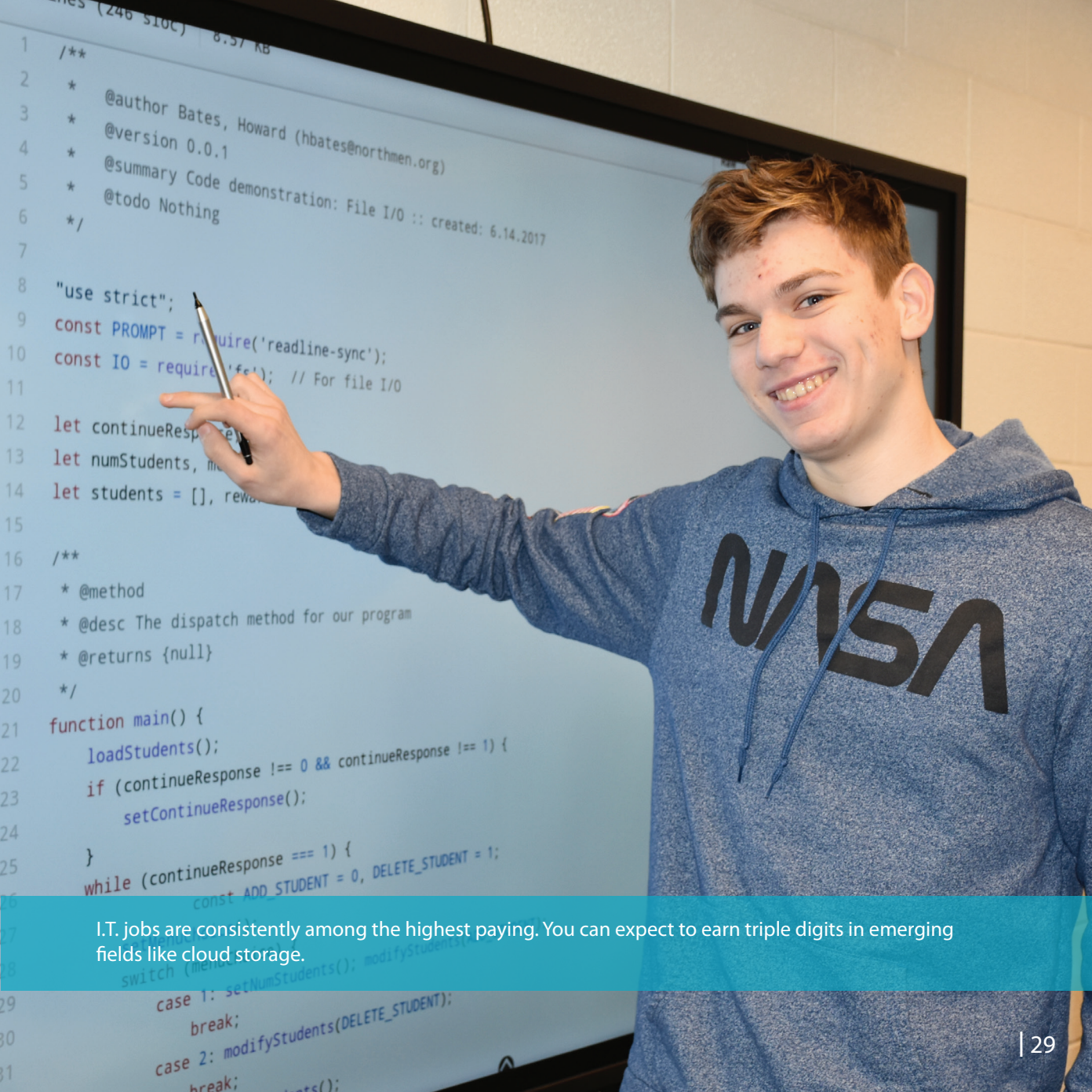
Information Technology courses focus on the design, development, support and management of hardware and software integration services. Students in this program may be eligible to take the following certification tests: Comp TIA, A+, Microsoft Certified Professional, and/or Cisco CCNA.

Locations:

Petoskey High School

Related Occupations:

Hardware Engineer
Computer Programmer
Software Developer
Technical Support Specialist
Computer Science Teacher
Information Systems Operator
Database Administrator
Information Security Specialist
Industry Sales Representative



```
1 /**  
2  * @author Bates, Howard (hbates@northmen.org)  
3  * @version 0.0.1  
4  * @summary Code demonstration: File I/O :: created: 6.14.2017  
5  * @todo Nothing  
6  */
```

```
7  
8 "use strict";  
9 const PROMPT = require('readline-sync');  
10 const IO = require('fs'); // For file I/O  
11  
12 let continueResponse = 0;  
13 let numStudents, message;  
14 let students = [], reward;  
15  
16 /**  
17  * @method  
18  * @desc The dispatch method for our program  
19  * @returns {null}  
20  */  
21 function main() {  
22   loadStudents();  
23   if (continueResponse !== 0 && continueResponse !== 1) {  
24     setContinueResponse();  
25   }  
26   while (continueResponse === 1) {  
27     const ADD_STUDENT = 0, DELETE_STUDENT = 1;
```

I.T. jobs are consistently among the highest paying. You can expect to earn triple digits in emerging fields like cloud storage.

Machine Tool Technology

This program will introduce students to the basic skills and machines needed in precision metal work. Students gain machining skills while working with lathes, milling machines, surface grinders, drill presses, and other equipment. In addition, students learn the basics of blueprint reading, precision measuring, layout, and machining process planning. Practical application of safe work habits and the correct use of tools and equipment will be emphasized throughout this program.



Locations:

Charlevoix High School

Related Occupations:

Engineer
Machine Tool Operator
CNC Controls Engineer
Manufacturer
Machinist
CNC Programmer
Industrial Maintenance Technician
Tool & Die Maker
Mechanical Engineer



Machinists usually have a high school diploma, on-the-job training, or attend trade school. The average wage for machinists is approx. \$45,000 a year. It is expected that job openings will continue to grow.

Marketing, Sales and Service

This program emphasizes marketing, sales, distribution, merchandising, entrepreneurship, and management. Coursework explores ownership and management of enterprises engaged in marketing. The goals of the program are to develop competent workers for the major occupational areas within marketing, and to promote understanding of the wide range of social and economic responsibilities that accompany the right to engage in marketing in a free enterprise system.



Locations:

Boyne City High School
East Jordan High School
Petoskey High School

Related Occupations:

Entrepreneur
Salesperson
Service Clerk
Insurance Agent
Public Relations
Sales Manager
Labor Market Analyst



Professional trades as careers let you leverage your talents, work ethic and know-how to help design and build the future, in jobs that are vital to keep Michigan healthy, strong and growing!

PowerSports Technology

PowerSports Technology offers students the opportunity to learn to identify engine and chassis components while using repair manuals to repair different types of small engines and outdoor equipment. In the class you will disassemble, measure, and reassemble small engines and equipment in order to gain experience and skills that will be useful moving forward.



Related Occupations:

Parts Clerk
Sales Associate
Service Technician
Parts Manager
Master Technician
Service Manager
Dealership Owner

Mechanic:
Motorcycle
Power Equipment
Marine
Farm Equipment
Business Owner/Manager

Locations:

Pellston High School



Learn how to repair your own powersports equipment while developing high-demand job skills! Overall employment in small engine mechanics is projected to grow 9 percent through 2030.

Public Safety

Students in the Public Safety course will learn components of public safety careers through hands-on experience in various facets of public safety, such as fire, police and emergency medical services. Students will become certified in CPR, Stop the Bleed, and Basic First Aid, participate in mock accidents, real-world scenarios, physical fitness activities and field related work based learning opportunities. Students will also have the chance to interact with local law enforcement officials from all branches.

Related Occupations:

- Police Officer
- Correctional Officer
- Rescue Worker (EMT, Paramedic)
- Firefighter
- Probation Officer
- Emergency Management Information Systems
- Security Specialist
- Dispatcher
- Conservation Officer
- Private Security

Locations:

Pellston High School



Jobs in public safety are the most critical lines of defense against dangers in our community and saving lives. These jobs are vital to the well-being of all.

TV and Film Production & Broadcasting

TV and Film Production & Broadcasting introduces students to the exciting area of digital audio and video recording, editing and presentation. Students in this program learn and are exposed to real world production environments producing for both the live production environment as well as post production. Students are responsible for broadcasting live events and running the Rambler Sports Network, as well as producing commercials, graphics, and motion graphic elements in a project-based setting.

Locations:

Boyer City High School

Related Occupations:

Broadcast Technician
Film and Video Editor
Camera Operator
Newscaster
Managing Editor
Script Writer
Director
Special Effects Manager
Production Manager/
Assistant



Fields such as sports video production, social media coordination, advertising sales, and brand development are among the fastest growing in the United States!

Unmanned Vehicles

*Prerequisite: Integrated Science 9, 16 years of age by June of the previous school year

Drone Technology provides students with a variety of sUAS topics as well as a “hands-on” experience. Students will learn basic sUAS Safety through the Unmanned Safety Institute (USI). They will explore the technology used in sUAS to give learners a deeper understanding of how unmanned aircrafts are able to navigate and perform. This course will also examine the limits and skills employed by professional remote pilots. Upon completion of this course, students will have the opportunity to earn their USI Level 1 sUAS Safety Certification and their FAA Part 107 sUAS commercial certification.

Related Occupations:

UAV Pilot
Aerospace Engineer
Delivery / Fulfillment Pilot
Search and Rescue
Drone Journalist
Photographer / Videographer
Mapping and Surveying
Conservationist
Energy Inspector

Locations:

Harbor Springs High School



The drone service market will create about 100,000 new jobs in the next few years alone. Skilled drone operators will be in high demand, as companies invest billions in the technology and look for pilots.

Welding Technology

The Welding Technology program covers basic to advanced metal joining processes used in a variety of metal fabrication industries. Students will be introduced to the most commonly used welding processes and gain experience in the laboratory which will enable them to set up commonly used welding equipment, learn a variety of welding procedures, and fabricate metal projects.

Related Occupations:

Certified Welder
Manufacturing
Mechanic
Assembler and Fabricator
Boilermaker
Jeweler/Precious Stone
and Metal Worker
Tool & Die Maker
Sheet Metal Worker
Welding Inspector

Plumber, Pipefitter and
Steamfitter
Industrial or Construction
Welding
Maintenance or Shop
Welder
Shop Supervisor/
Project Manager
Welding Engineer

Locations:

East Jordan High School
Pellston High School

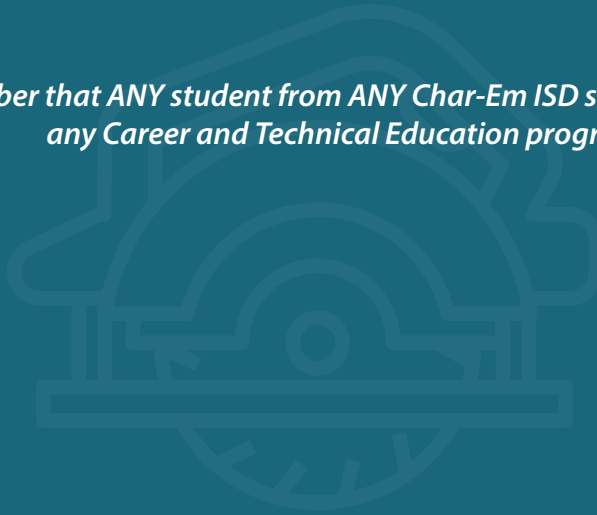


Students from ALL Char-Em districts can enroll in ANY Career and Technical Education program in ANY school!

Woodworking and Furniture Making

The Woodworking and Furniture Making course is designed to provide students with the knowledge and skills necessary to make furniture and other finely crafted wood products.

Remember that ANY student from ANY Char-Em ISD school district can enroll in any Career and Technical Education program offered in any district!



Locations:

East Jordan High School
Harbor Springs High School

Related Occupations:

Carpentry
Cabinet Making
Boat Building
Furniture Construction



Apply your artistic skills through on the job training! Technical institutes offer diplomas, certifications, and degree programs in woodworking, cabinet making, and carpentry.

Summer Camps and CTE!

Char-Em ISD CTE offers several summer camp opportunities that expose youth in grades 2-11 to various career fields through fun, hands-on learning! Youth have a chance to try new skills that interest them in a variety of settings and locations. All camp information can be found on the Char-Em ISD website, www.charemisd.org, under the Career and Technical Education section!

Career Academy For Kids (CA4K)

CA4K is a three-day summer program of enrichment classes covering a wide variety of subjects. Classes are designed to help students currently enrolled in grades 2-8 experience a particular field of interest in-depth and hands-on.

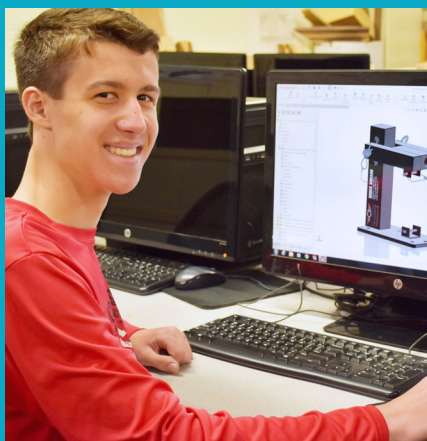
Welding Academy

Two, three-day **Welding Academy** camps are held each summer. Students in grades 8-11 develop basic welding knowledge and skill application and participate in creating a team welding project and completing student-made take home projects.

Construction Trades camps

Construction Trades-related camps find students in grades 6-10 building sheds and other structures as they learn the skills of this high-demand trade.

Parents and students can learn more about how Career Tech classes lead to rewarding and exciting careers using the **Step up to Success interactive Career Staircase tool**, found on the Char-Em website. Additional activities to expose students to career paths include **MICareer-Quest**, **Manufacturing Day**, and other activities. **Career Spotlight article**, **Career Signing Events**, and the **annual CTE banquet** recognize students who shine in the skilled trades.



Schools served by Char-Em ISD

Alanson Public

Beaver Island Community

Boyne City Public

Boyne Falls Public

Central Lake Public

Charlevoix Montessori Academy for the Arts

Charlevoix Public

Concord Academy Boyne

Concord Academy Petoskey

East Jordan Public

Ellsworth Community

Harbor Springs Public

Pellston Public

Public Schools of Petoskey

and non-public schools



Supporting Schools
Supporting Students

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AdvancED Accreditation | NCA