Mahoning County Career & Technical Center
Placement & Planning Guide

2021-2022

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Best Practices When Discussing Placement

for districts assisting identified students who are interested in applying to MCCTC

Ohio Career Centers were created to make career and technical education available to all Ohio students. Recently, the emphasis at the state level has been towards credentialing and focused workforce development. As a result, Ohio career-technical education has transitioned to pathways and courses and the Ohio Department of Education is fine-tuning its technical content standards in 16 areas. In each of these areas there are state standards and required state assessments. This guide contains core skills and attributes that have been identified by our staff as minimal guidelines to ensure that students can succeed both in completing and becoming credentialed in each respective career technical program offered here at MCCTC. Following is a list of best practices to support home district personnel who assist identified students in the process of selecting one of MCCTC's programs.

1. **We highly encourage districts to invite our team to IEP meetings for students interested in a career tech pathway during their ninth grade year.**
2. ***Due to the nature of Career and Technical Education, every lab has a required safety test. Students who are unable to pass this required safety test with appropriate accommodations will not be permitted to continue in their respective program. Sample curriculum.***
3. **Least Restrictive Environment Continuum**
    a. Career Tech Programs are aligned to required state pathways and in demand high paying careers ***and none of them are self-contained***. All Career Tech programs are lab-based, heavily reliant on hands-on training, and have a 24 to 1 student to teacher ratio. It is critical for the programs to require students to consistently use self regulation skills to keep themselves and others safe.
    b. ***Transition Early*** - the act of coming to the career center represents a major transition for all students. It is similar to the 9th grade high school transition. As a team please consider the following:
        i. If the student's current IEP team believes the student should attend and will succeed in a career and technical setting, the student should be transitioned out of a restrictive self-contained setting before the start of the junior year at MCCTC.
        ii. Students who require a more restrictive setting until coming to MCCTC are oftentimes overwhelmed and face significant struggles because they are moving from being placed in the most restrictive setting and directly entering the least restrictive environment (hands-on, real world, work-simulated training in a career based, general education setting).
        iii. Students transitioning directly from small group, restrictive settings, may require one-to-one aides in a career tech setting.
4. Review the program overviews found in this guide and discuss the student's potential success accordingly with respect to individual needs, interests, skills, and preferences.
5. Based on the program overviews and your knowledge of the student, discuss potential accommodations and/or modifications that may be necessary for success in the specific program of interest. Review the permissible testing accommodations for these programs as most career tech assessments only permit basic ADA accommodation and none permit modifications.
6. Carefully balance what a student says they like with their skills and relevant potential success as aligned to AATA data.
7. If you have a question about one of our programs and a specific student's needs, please contact our Department of Student Services.
8. Consider scheduling an in person visit for students and their families. We are always happy and willing to setup a visit!

Academy Table of Contents

COSMETOLOGY

PROGRAM WEBSITE

Program Description

Students enrolled in Cosmetology will learn the technical skills related to hair care, skin care, and nail care. Upon completion of their hours, students are eligible to take the Ohio State Board of Cosmetology and Barber Board licensure exam to obtain their Cosmetology License.

Skills/Abilities/Interests

- Strong organizational and time management skills
- Basic reading and reading comprehension skills
- Complex critical thinking and problem-solving skills
- Basic math skills, counting money, making change, calculating discounts, ratios (hair color), and geometry (understanding different angles as they pertain to haircutting)
- The ability to understand scientific concepts as they pertain to cosmetology (ex: chemistry, electricity, biology, anatomy)
- Oral communication and public presentation skills
- Hand eye coordination and finger and manual dexterity

Potential Careers

- Hair Stylist, Esthetician, Eyelash Specialist, Massage, Makeup Artist, Manicurist, Platform Artist, Educator for product lines, Representative for beauty products

PROGRAM NOTES

- Poor attendance can disqualify students from continuation in this program.
- Lab time requirements may result in students with credit deficiencies not be placed in this program.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.
- This is a highly rigorous and competitive program. Successful completers can earn up to 30 hours of college credit.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Geometry Ratios Money	Anatomy Biology Chemistry	Reading Speaking	Independent online work

Beyond the Core Course Requirements

*All students are required to take Anatomy
*All students must complete 150 hours of unpaid internship time at a local salon

Credentials/Assessments

Students **must** complete **1500 hours of attendance** over 2 years. 150 of these hours must be through an unpaid internship at a local salon. If this is not met, the student cannot sit for the State Board Exam for the Cosmetology license.

- **Please note that the State Board Exam only allows the following accommodations:**
  - o Extended time on theory portion of licensure exam only (30 additional minutes)
  - o Reader available to all (automated voice recording)
  - o Sign Language Interpreter (hearing impaired)
- Must be OSHA certified (will take course at MCCTC)

COLLEGE CREDIT OPTIONS

- CCP Courses on site in English, Math, and Anatomy
- Up to 30 semester hours of College Credit through MCCTC agreements with partner universities

career exploration resources

Coming Soon!

CREATIVE ARTS & DESIGN

PROGRAM WEBSITE

Program Description

Students in this program will learn and adapt their work to include the fields of fine/creative art, graphic design, digital, print, videography, and photography. They will use their knowledge towards an exciting career in commercial art, animation, graphic design, advertising and marketing.

Skills/Abilities/Interests

- Basic artistic ability and creativity and the ability to use technology
- Customer service skills (communication, social skills, etc.)
- Basic reading, comprehension, writing , and spelling skills
- Organization, problem solving, and critical thinking skills
- Basic mathematics skills (addition, division, percentages, measurement)
- Ability to convert fractions to decimals and decimals to fractions
- Finger and manual dexterity
- Accuracy, attention to detail + time and project management skills
- Willingness to take initiative and the ability to work independently
- Ability to accept constructive criticism and make changes
- ***Ability to multitask, manage stress, and meet deadlines***
- Visualization ability and a high level of color discrimination
- Ability to follow sequential steps and processes independently
- No sensitivity to smells (bleach, paint, chemicals)

Potential Careers

- Graphic Designer, Commercial Artist, Illustrator, Studio Artist, Art Director, Photographer, Motion Graphic Artist, Web Designer, Film Producer, Audio Producer, Mobile App Developer, Fashion Designer/Buyer, Interior Designer

PROGRAM NOTES

- This program is both a fine art and technology-based art program. Students should have the desire to excel in both.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Geometry Ratios Conversion	Basic Chemistry	Reading Public Speaking Writing/Spelling Listening	Independent online work

Beyond the Core Course Requirements

Credentials/Assessments

- Students must pass a **minimum** of 3 Industry Credential Exams: Adobe Illustrator, Adobe InDesign, and Adobe Photoshop.
- Only permissible accommodations include:
  - Extended testing time
  - A separate testing room or larger testing area
  - A reader and/or recorder
- Must be OSHA certified (will take course at MCCTC)

COLLEGE CREDIT OPTIONS

- CCP Courses on site in English, Math, and Anatomy
- Additional College Credit through MCCTC agreements with partner universities

career exploration resources

Illustrator
Commercial Design
Visual Arts 1

CULINARY ARTS

PROGRAM WEBSITE

Program Description

The Culinary Arts program allows students to study the art of preparing and cooking various food products with the knowledge of food science, sanitation, and an understanding of diet and nutrition.

Skills/Abilities/Interests

- Basic reading and reading comprehension skills
- Applying math skills to recipes in converting and costing
- Oral communication and ability to interact with the public
- Ability to work well under pressure, accept constructive criticism and make changes
- Ability to gather and apply information from various sources
- Critical thinking and problem-solving skills
- Physical coordination: Finger/manual dexterity and hand eye coordination
- Personal and environmental cleanliness
- Ability to demonstrate safety & sanitation standards
- Ability to hear and follow directions quickly and to work in a team setting.
- Strong time management and organizational skills
- Accuracy, attention to detail, and able to multitask
- Passionate about food
- Ability to independently apply steps and procedures from recipes
- Can work at a continuous, steady pace in a job-related atmosphere
- Awareness of food allergies

Potential Careers

- Assistant Manager, Sous Chef, Bakery/Pastry Chef, Caterer, Dietary Aide, Line Cook - (Grill, Saute, Pantry), Waiter/Waitress, Deli or Bakery Manager

PROGRAM NOTES

- This program is both a fine art and technology-based art program. Students should have the desire to excel in both.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Conversion Mental Math Money	Nutrition Physical Science Chemistry	Reading Comprehension Public Speaking	Independent online work

Beyond the Core Course Requirements

Credentials/Assessments

- Must complete the ProStart program. This includes hours to be completed outside of school (working or volunteering in a food service establishment for 200 + hours) and passage of year 1 and 2 tests.
  - Permissible Accommodations: Oral Testing, Reader, Translators
- Must pass the ServSafe Food Handler Exam
  - Permissible Accommodations:Reader, Small Groups, Extended Time, Scribe
- Must be OSHA certified (will take course at MCCTC).
  - Basic ADA Accommodations Permitted Only

COLLEGE CREDIT OPTIONS

- CCP Courses on site in English and Math
- Additional College Credit through MCCTC agreements with partner universities

career exploration resources

Culinary Arts
Food Buyer
Food Inspector
Food Science

EARLY CHILDHOOD EDUCATION

PROGRAM WEBSITE

Program Description

Early Childhood students work toward earning the Child Development Associate Credential by having 120 hours of childcare training and 480 contact hours with children before taking the CDA exam and on-site teaching evaluation by a professional development specialist.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Complex Problem-Solving Skills
- Oral communication and public presentation skills
- Communicate effectively in writing and time management skills
- Good safety and moral judgement and service orientation
- A desire to work with children
- Personal and environmental cleanliness
- Ability to take initiative and to work independently
- Ability to collaborate with others
- Ability to pass a FBI/BCI background check
- Evidence of good physical health and personal hygiene
- Can use technology to complete online training and to access information

Potential Careers

- Day Care Head Teacher, Elementary Teacher Aide, Head Start Assistant, Home Daycare Provider, Institutional Attendant, Nursery School Aide, Recreation Aide, Special Education Aide

PROGRAM NOTES

- Note that background checks, a clean criminal record, and passage or required lab trainings are required for participation in this program.
- Students will be given the privilege to work in the Small Wonders daycare and preschool center. Any student that loses these privileges will also lose their seat in the program.
- Requires the ability to work independently in the actual childcare setting without constant supervision, monitoring, and redirection.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Arithmetic Number Sense Mental Math	Biology	Reading Comprehension Oral Communication	Independent online work

Beyond the Core Course Requirements

Credentials/Assessments

- Credentials/certifications offered:
  - CDA (12)
  - ServSafe Level I (3)
  - Child Abuse Recognition and Prevention (1)
  - Communicable Diseases (1)
  - First Aid/CPR (1)
- Must be OSHA certified (will take course at MCCTC)
- Permissible Accommodations for most credentials: Reader, Extended Time, Separate Testing Room

COLLEGE CREDIT OPTIONS

- CCP Courses on site in English and Math
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Education and Training

ALLIED HEALTH/PRE-NURSING

PROGRAM WEBSITE

Program Description

Students learn the skills necessary for successful clinical health care careers. Students in this program can become state certified in Nurse Aide (STNA), phlebotomy, clinical medical assisting (CMA), and EMT basic.

Skills/Abilities/Interests

- Ability to learn large amounts of medical terminology for credential exams
- Basic reading skills and reading comprehension
- Complex problem-solving skills and critical thinking skills
- Ability to read a ruler, tape measure and both baby and upright weight scale
- Basic addition, subtraction, multiplication and division
- Oral communication and public presentation skills
- Communicate effectively and accurately in writing (journals, reports, research assignments, patient charts)
- Finger and manual dexterity/hand eye coordination
- Multi-limb Coordination
- The ability to exert muscle force to lift, push, pull, or carry objects
- Instructing - Teaching others how to do something
- The ability to arrange things or actions in a certain order or pattern

Potential Careers

Dietary Assistant, Nursing Assistant, Pharmacy Assistant, Physical Therapy, Medical Office Assistant, Dental Office Assistant, Medical Lab Technician, Physical Therapy Aide, Patient Care Associate, Medical Assistant, Dietary Assistant, Nursing Assistant

PROGRAM NOTES

- Students in this program are required to wear uniforms, closed toe shoes, and have hair color in the natural range of colors dues to clinical requirements
- Must be able to work effectively independently and in groups
- Piercings may also be an issue with clinical providers
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion	Biology Anatomy	Reading Speaking Writing	Independent online work

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Biology course with a C or higher.
*Students will be required to take an advanced level Anatomy course.

Credentials/Assessments

- Phlebotomy (12)
- STNA (12)
- EMT (12)
- CMA (12)
- Patient Care Technician (PCTC) (12)
- Physical Therapy Aide (PTTC) (12)
- CPR/First aid (1)
- OSHA (1)
- NIMS 100, 200, 700, 800 (10)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and Anatomy
- Additional College Credit through MCCTC agreements with partner universities

career exploration resources

Advanced Patient Care PPT or PDF
Dental PPT or PDF
Medical Assisting PPT or PDF
Nursing (I) PPT or PDF
Nursing (II) PPT or PDF

ANIMAL/Pre-Veterinary SCIENCE

PROGRAM WEBSITE

Program Description

Learners will examine the diverse and complex field of animal science and identify all phases of animal production, research, sales, service, business, and education in which animal scientists may be involved. Animal sciences is planned to be a rigorous course in which students will not only learn a general understanding of grooming, companion animal care, and general customer service, but students will also gain skills to work within the veterinary field leaving with the potential to work at a veterinary office.

Skills/Abilities/Interests

- Ability to learn large amounts of medical terminology for credential exams
- Basic reading skills and reading comprehension
- Complex problem-solving skills and critical thinking skills
- Ability to read a ruler, tape measure and scales
- Basic addition, subtraction, multiplication and division
- Basic conversion from standard measurement to metric
- Oral communication and public presentation skills
- Communicate effectively and accurately in writing Finger and manual dexterity/hand eye coordination
- The ability to exert muscle force to lift, push, pull, or carry objects
- Service Orientation
- The ability to arrange things or actions in a certain order or pattern

Potential Careers

Pet store employee, Vet office reception and assisting, AKC volunteer worker, Pre-veterinary programs at college (after a 4-year pre-med or pre-vet program), Work or operate an animal shelter, pet groomer, Zoology and zookeeping, Animal Pharmacology and radiology

PROGRAM NOTES

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.
- This is a science-based program and the level of rigor goes well beyond the basic care and handling of animals.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion	Biology Anatomy	Reading Speaking Writing	Independent online work

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Biology course with a C or higher.
*Students may be required to take an advanced level Anatomy course.

Credentials/Assessments

- CPR/First aid (1)
- OSHA (1)
- NIMS 100, 200, 700, 800 (10)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and Anatomy
- Additional College Credit through MCCTC agreements with partner universities
- Potential Veterinary Technician bridge program coming in 2021.

Career Exploration Resources

Veterinary Pathway

Biomedical Science

PROGRAM WEBSITE

Program Description

Students can play a crucial role in problem-solving devastating illnesses and learn critical thinking skills needed to make discoveries in the field of biology that have important effects in the medical world. Delve into fields such as cell and molecular biology, biochemistry, microbiology, and pathophysiology, and emerge with hands-on experience through laboratory work and research. Study in biomedical sciences is excellent preparation for entry into college, medical school, and then programs in areas like surgery, genetics, neuroscience and immunology, and other professional programs.

Skills/Abilities/Interests

- Incoming students must have a 2.8 GPA
- High school level reading skills and reading comprehension
- Complex Problem-Solving Skills
- Basic Algebra skills and metric conversions
- Ability to use the scientific method
- Oral communication skills
- Ability to gather and apply information from various sources/research
- Strong organizational skills
- Time management
- The ability to concentrate on a task over a period of time without being distracted

Potential Careers

- Microbiologist. Molecular Biologist, Biotechnology Researcher, Bioinformatics Analyst, Data Analyst, Pharmaceutical Development, Regulatory Agent

Important Program Notes

- Recommended prerequisite requirements for acceptance into our biomedical program including a 2.8 GPA minimum; Geometry, Biology, and/or Chemistry with a B or better, and attendance is strongly evaluated.
- Students are expected to be College Credit Plus eligible and to have the ability to complete College Level Chemistry and Biology successfully.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Formulas Algebra	Biology Anatomy Chemistry Physics	Reading Speaking Writing Vocabulary	Independent online work

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already completed Geometry, Biology, and/or Chemistry with a B or better

Credentials/Assessments

- EMT (12)
- CPR/First aid (1)
- OSHA 10 (1)
- NIMS 100, 200, 700, 800 (10)
- Basic ADA Accommodations Permitted Only

College Credit Options

- Chemistry 1515/L - 4
- Chemistry 1516/L - 4
- Biology 2601/L - 4
- Biology 2602/L - 4
- CCP Courses on site in English, Math, and Anatomy
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Biomedical Engineering Pathway
Biotech Pathway I
Biotech Pathway II

ENGINEERING

PROGRAM WEBSITE

Program Description

Students will gain the technical skills used to test, troubleshoot, and repair equipment and systems. Instruction includes a blend of lecture and lab experiences. This program prepares students for work as both an engineer and an engineering technician. An engineering technician will work in the design, drafting, development, testing and production of projects. Learn how to think and act like an engineer, as well as acquire some of the basic skill sets required to enter into a college program.

Skills/Abilities/Interests

- Ability to take college level classes
- Higher level mathematics and algebraic skills
- Reading, comprehension, and writing ability at the pre-college level
- Problem solving and critical thinking skills
- Advanced measurement skills
- Advanced computer skills
- Ability to convert fractions to decimals and decimals to fractions
- Finger and manual dexterity
- Attention to detail + time and project management skills
- Willingness to take initiative and the ability to work independently
- Ability to accept constructive criticism and make changes
- Ability to multitask
- Ability to follow sequential steps and processes independently

Potential Careers

CAD Operator, Electronics Technician, Robotics Technician, Engineer, Engineer Technician

PROGRAM NOTES

- Students in this program are expected to take college credit courses.
  Typical students take:
  a. Two College English Courses
  b. Calculus, Eastern Gateway
  c. Statistics and College Algebra 1- Eastern Gateway
  d. Other CCP electives

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Algebra Measurement Geometry Ratios Conversion	Physics Mechanical Science	Reading Speaking Writing	Independent online work Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed high school level Algebra 1 and Geometry courses with a B average.

Credentials/Assessments

- AutoCad/Inventor (4 credits)
- FANUC/MOTOMAN (6 credits)
- NCCER (6 credits)
- CPR/First Aid (1 credit)
- OSHA 10 (1 credit)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

career exploration resources

Electrical Engineering PPT or PDF
Electronics Engineering PPT or PDF
Engineering Management PPT or PDF
Mechanical Engineering PPT or PDF

Exercise Science & Physical Therapy Tech

PROGRAM WEBSITE

Program Description

Students will study the core concepts from the fields of athletic and fitness training and Pre-Physical Therapy. Areas of emphasis include anatomy and physiology, athletic injuries, prevention, and rehabilitation, basic treatment and therapeutic methods, and personal wellness and nutritional coaching. Students who successfully complete the program can take exams to become Certified Personal Trainers through the National Academy of Sports Medicine (NASM) and/or Physical Therapy Technicians through the American Medical Certification Association (AMCA).

Skills/Abilities/Interests

- Strong ability for learning and understanding scientific vocabulary and functions
- Communicate effectively in writing and orally
- Ability to perform basic math calculations and formulas
- Ability to gather and apply information from various sources/research
- 2.0 GPA
- Finger and manual dexterity and strong hand eye coordination
- Willingness to be physically active daily
- The ability to exert muscle force to lift, push, pull, or carry objects
- Instructing - Teaching others how to do something
- Service Orientation
- The ability to arrange things or actions in a certain order or pattern

Potential Careers

- Athletic trainer, Fitness instructor, Personal trainer, Physical education teacher, Recreation director, Sports medicine, Physical therapy, Nutrition counselor

PROGRAM NOTES

- Most students in this program will take a college anatomy course at minimum
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Geometry Ratios Conversion Statistics	Physics Anatomy Biology	Reading Speaking Writing	Independent online work Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Biology course with a C or higher.
*Students will be required to take an advanced level anatomy course.

Credentials/Assessments

- Credentials/certifications offered:
  - Personal Training (3)
  - Physical Therapy Aide (12)
  - EMT (12)
  - First Aid/CPR (1)
  - NIMS 100, 200, 700, 800 (10)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- Partnership with Kent State East Liverpool through CCP in Physical Therapy Assisting
- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Physical Therapy PPT or PDF

Networking & Cybersecurity

PROGRAM WEBSITE

Program Description

Students in this program will learn how to install, repair, and troubleshoot computer hardware and software systems. They will perform preventative maintenance practices and learn techniques for maintaining computer hardware security. Students will install a variety of operating systems manually and using remote assistance. They will learn to configure, modify, and troubleshoot operating systems. Seniors will learn about the OSI model, network technologies, and cabling. A large emphasis will be placed on the growing field of cybersecurity. Students will learn to secure network communications, hardware and network software.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Complex problem-solving and critical thinking skills
- Strong math ability and comfort using formula structures
- Attention to detail and good time management
- Ability to work independently
- Ability to follow detailed instructions
- Strength in the areas of logic, patterns, and technology
- Eye hand coordination and good overall dexterity

Potential Careers

- Network and Computer Systems Administrator, Information Security Analyst, Computer User Support Specialist, Computer Hardware engineer, Help Desk Associate, Network Installer

Program Notes

- Students in this program will spend extensive amounts of time working on and with computers.
- Students should have the ability to lift 50 pounds and the ability to engage in the physical demands of installing and maintaining network equipment.
- The ability to use a ladder is strongly recommend.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Algebraic Expression Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Credentials/certifications offered:
  - CompTIA A+ (6 credits)
  - CompTIA Network + (6 credits)
  - IC3 (2)
  - OSHA 10 (1)
  - First Aid/CPR (1)
  - NIMS 100, 200, 700, 800 (10)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

IT Career Pathway I
IT Career Pathway II

Software Engineering and Development

PROGRAM WEBSITE

Program Description

Students will learn Software Development Fundamentals for Web Development, Desktop Applications, Mobile Applications, Database, Algorithms, and Problem Solving. Students will also apply the fundamentals of Software Development in a hands-on development environment. Apply your skills to design and develop applications. Debug and troubleshoot problems. Test, evaluate, and improve computer software. Earn industry credentials from Microsoft, Google, Adobe, and more.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Complex problem-solving and critical thinking skills
- Strong math ability and comfort using formula structures
- Attention to detail and good time management
- Ability to work independently
- Ability to follow detailed instructions
- Strength in the areas of logic, patterns, and technology
- Eye hand coordination and good overall dexterity

Potential Careers

- Software Developer, Website Designer, App Developer, Robotic Programming and Operation, Video Game Design Engineer

Program Notes

- Students in this program will spend extensive amounts of time working on and with computers

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Algebraic Expression Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Credentials/certifications offered:
  - MTA: Microsoft Technology Associate (view offerings)
  - Oracle Certified Associate - Java
  - Adobe Certified Associate: Dreamweaver; Photoshop
  - CIW Web Foundations Associate
  - IC3
  - Google Analytics; Google Adwords
  - OSHA 10 (1); First Aid/CPR (1); NIMS 100, 200, 700, 800 (10)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

IT Career Pathway I
IT Career Pathway II

Machine Team

PROGRAM WEBSITE

ADVANCED MANUFACTURING

Program Description

Our advanced manufacturing program allows students to be creative while also requiring them to be detailed oriented. It teaches students all aspects of machining applications in manufacturing. Students will learn the fundamental principles and practices of cutting, drilling, and grinding using modern machine tools, hand tools (manual drills and lathes), and precision measuring instruments. Students apply their knowledge of product characteristics, perform necessary calculations, and use precision measuring instruments and layout equipment to mill products to print dimensions. Students will also use computer numerical control (CNC) programming to mill products comprised of different types of materials.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Math skills: Algebra, Geometry, Trig.
- Converting fractions to decimals
- Converting standard to metric and metric to standard
- Basic addition, subtraction, multiplication, division
- Finger and manual dexterity
- The ability to exert muscle force to lift, push, pull, or carry objects
- Positive attitude
- The ability to arrange things or actions in a certain order or pattern
- Good spatial relations ability

Potential Careers

Apprentice Machinist, CAD Operator, Product Manufacturer, Machine Designer, Production Welder, Apprentice Mold Maker, Apprentice Tool and Die Maker, CNC Mill or Lathe Operator, Quality Control Inspector, Production Machinist, Manufacturing Engineer

PROGRAM NOTES

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing Vocabulary	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- NIMS: (National Institute for Metalworking Skills) (12 credits)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Industrial Engineering PPT or PDF

Industrial Technology PPT or PDF

Manufacturing Safety PPT or PDF

Machine Team

PROGRAM WEBSITE

AUTOMOTIVE TECHNOLOGY

Program Description

The Automotive Technology program offers students a hands-on learning experience studying the basic automotive systems and maintenance of vehicles. Students in this program will study areas in an introduction to the automotive industry, preventative maintenance, brakes, steering and suspension, and engine repair. The majority of students in this program will be job-ready and working in the field during their senior year while also earning more than 12 points in industry credentials. This program has established partnerships with many local dealerships and auto repair businesses in the area.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Problem Solving Skills
- Critical Thinking skills
- Active Listening
- Ability to perform precision measurements
- Oral communication skills
- Finger and manual dexterity
- Hearing Sensitivity
- Arm and hand control
- The ability to exert muscle force to lift, push, pull, or carry objects
- Tolerance for getting dirty
- Self-motivated to complete tasks

Potential Careers

Quick Service Technician, Engine, Brake, Tire, Suspension Work, General Maintenance, Parts & Inventory, Independent Shops & Chain Service Departments

PROGRAM NOTES

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- ASE) - A4 ASE Suspension & Steering (12pts)
- (ASE) Maintenance & Light Repair (MLR) (G1) (12pts)
- (ASE) - A5 Brakes (12pts)
- (ASE Student) - 10 Tests for 3 pts per test.
- OSHA (1 point)
- CPR/First Aid (1 point)
- Basic ADA Accommodations Permitted Only

College Credit Options

- Qualifying students will have access to CCP credit in automotive technologies through Stark State University
- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Automotive Technology PPT or PDF

Machine Team

PROGRAM WEBSITE

Custom Auto Painting, Design & Repair

Program Description

Custom painting, car wraps, welding projects, detailing, light mechanical, and plastic repair are just a few things you will find in this high energy, project-based learning lab. You will also have the opportunity to learn the restoration of classic vehicles using modern techniques. This program gives you many skills to reach your career aspirations in the custom auto body field.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Problem solving skills
- Ability to perform precision measurements
- Understand fractions
- Oral communication skills
- Strong organizational skills
- Attention to detail
- Ability to meet deadlines
- Confident

Potential Careers

Detailer, Painter assistant, Body tech assistant, Parts store (Auto Zone), Glass company, Interior work, Radio / Stereo systems, Welding

Program Notes

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Metallurgy	Reading Speaking Writing	Independent online work Digital Multi Meter *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Automotive Service Excellence (ASE) (4 student tests, 3 pts. Each, 12 total points)
- ICAR (12 points)
- OSHA (1 point)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Automotive Technology PPT or PDF

Machine Team

PROGRAM WEBSITE

Diesel Power Tech Program

Program Description

Keep America trucking and the woods full of off-road toys! Students in this program will learn how engines, transmissions, and automatic brakes systems (ABS) communicate with one another. This program covers the engine, power train, hydraulic, electrical, and electronic control theory, and design.

This program is taught by an ASE-certified master truck technician and is fully certified by ASE. Students will gain hands-on experience with many systems related to a diesel truck, automotive, marine and off-road equipment

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Problem Solving Skills
- Critical Thinking skills
- Active Listening
- Ability to perform precision measurements
- Oral communication skills
- Finger and manual dexterity
- Arm-Hand Control
- The ability to exert muscle force to lift, push, pull, or carry objects
- Hearing Sensitivity

Potential Careers

Heavy truck mechanic, Heavy equipment mechanic, Construction mechanic, Small engine mechanic, Off-road equipment, Tire shop, General maintenance job in a factory

PROGRAM NOTES

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Automotive Service Excellence (ASE) (4 student tests, 3 pts. Each, 12 total points).
- IVES Training-Fork Lift/Man Lift/Boom Lift (All 1 point each)
- OSHA (1 point)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Diesel Mechanic PPT or PDF

Machine Team

PROGRAM WEBSITE

WELDING

Program Description

Keep America trucking and the woods full of off-road toys! Students in this program will learn how engines, transmissions, and automatic brakes systems (ABS) communicate with one another. This program covers the engine, power train, hydraulic, electrical, and electronic control theory, and design.

This program is taught by an ASE-certified master truck technician and is fully certified by ASE. Students will gain hands-on experience with many systems related to a diesel truck, automotive, marine and off-road equipment

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Problem Solving Skills
- Critical Thinking skills
- Active Listening
- Ability to perform precision measurements
- Oral communication skills
- Finger and manual dexterity
- Arm-Hand Control
- The ability to exert muscle force to lift, push, pull, or carry objects
- Hearing Sensitivity

Potential Careers

Entry-level welder in stick, MIG, & flux core, Welders helper, All-purpose welder, Welding salesman, Maintenance welder, Fabricator, Set up welder

PROGRAM NOTES

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- American Welding Society (AWS) 12 points
- Additional AWS Qualifications - 9 Points
- NCCER Core and Level 1- 12 points
- OSHA (1 point)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Materials PPT or PDF

GLOBAL

PROGRAM WEBSITE

Aviation Maintenance

Program Description

Students In this program will learn: Repair and maintenance of airframes in accordance with industry standards and FAA regulations, Sheet metal fabrication, Hydraulics/Pneumatics, Aircraft inspection procedures, Engine performance diagnosis, Maintenance of aircraft powerplants, Composite structure repair

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Complex Problem-Solving Skills
- Critical Thinking skills
- Ability to perform precision measurements
- The ability to arrange things or actions in a certain order or pattern
- Finger and manual dexterity
- Hearing at normal levels
- Strong organizational skills
- Attention to detail
- Hearing Sensitivity

Potential Careers

Airframe and Powerplant Technician, General Aviation Technician, Airline Technician, Line Technician, Airframe Specialist, Powerplant Specialist

PROGRAM NOTES

- Exemplary attendance is required for this program. Missing school can result in students not being certified.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Credentials/certifications offered:
  - (FAA) Powerplant Mechanic (12 credits)
  - (FAA) Airframe Mechanic (12 credits)
  - First Aid/CPR (1)
  - NIMS 100, 200, 700, 800 (10)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Aerospace PPT or PDF

GLOBAL

PROGRAM WEBSITE

Building Construction & Remodeling

Program Description

The Building Construction and Remodeling program will begin by teaching students how to organize a project work sequence. They will learn principles in basic safety (10-hr OSHA), construction math, hand and power tool operation, blueprint reading, material handling, communication, and employability skills. Interpreting plans and diagrams, layout, and install the basic wall, floor, and roof applications are some of the competencies students will be learning. Students will perform introductory masonry applications including formwork, reinforcement, mixing, and finishing. They will learn procedures and techniques required for layout and framing of walls and ceilings, including roughing-in door and window openings, constructing corners and partitions; bracing walls and ceilings; and applying sheathing. Throughout the program, the safe handling of materials, personal safety, prevention of accidents, and the mitigation of hazards are emphasized.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Critical Thinking skills
- Understand fractions
- Finger and manual dexterity
- Hand eye coordination
- Able to follow verbal directions
- Ability to meet deadlines

Potential Careers

Construction worker, carpenter, pipe fighter, ironworker, cement worker, tile worker, electrician, HVAC installer

PROGRAM NOTES

- Students should be willing to work in all types of weather outdoors.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physical Science Engineering	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Credentials/certifications offered:
  - NCCER Core (6)
  - NCCER Carpentry Level 1(6)
  - NIMS 100, 200, 700, 800 (10)
  - First Aid/CPR (1)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Electrical PPT or PDF
HVAC PPT or PDF
Heavy Equipment PPT or PDF
Construction Management (I) PPT or PDF
Construction Management (II) PPT or PDF

Electricity

PROGRAM WEBSITE

Program Description

The Electricity program will begin by teaching students how to organize a project work sequence. They will learn principles in basic safety (10-hr OSHA), electrical math, electrical theory, material and equipment, blueprint reading, communication, and employability skills. Students will interpret schematics; construct basic circuits, use test equipment, and electrical as well as install, test, and repair receptacle outlets, lighting, and small appliance circuits. They will understand circuit protection concepts and install a subpanel. A specialty circuit installation will be addressed. Students will complete the program with an intense study of commercial and industrial electrical systems.

Skills/Abilities/Interests

- Basic reading skills and reading comprehension
- Complex Problem-Solving Skills
- Algebra 1 math skills
- Understanding of Order of Operations
- Oral communication skills
- Finger and manual dexterity
- Near Vision
- Strong organizational skills
- Ability to follow directions
- Time management
- Average color discrimination ability

Potential Careers

- Electrical Control Assembler, Electrical Maintenance Helper, Heating and Air Conditioning Installer, Residential Electrician, Commercial Electrician, Lineman

Program Notes

- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

Recommended Academic Strength Areas

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Physics	Reading Speaking Writing	Independent online work *Advanced computer skills

Beyond the Core Course Requirements

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

Credentials/Assessments

- Credentials/certifications offered:
  - NCCER Electrical Level 1 (6)
  - NIMS 100, 200, 700, 800 (10)
  - First Aid/CPR (1)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

College Credit Options

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

Career Exploration Resources

Electrical PPT or PDF

PROGRAM WEBSITE

PUBLIC SAFETY

PROGRAM DESCRIPTION

In year one, Students will learn law enforcement terminology, classifications and elements of crime, and how various court systems are used to judge and punish offenders. In year two students will analyze and practice skills outlined in the Ohio Department of Public Safety Fire protection and Ohio Emergency Medical Services rules and regulations in preparation for Firefighter I & II curriculum and licensure.

SKILLS/ABILITIES/INTERESTS

- Basic reading skills and reading comprehension
- Complex Problem-Solving Skills
- Oral communication and public presentation skills
- Can communicate effectively and accurately in writing
- Far Vision and Near Vision
- Strong Organizational Skills and attention to detail
- Ability to accept Constructive Criticism & make changes
- Ability to analyze and evaluate information and situations
- The ability to quickly respond a willingness to be physically active
- Self-disciplined and ability to maintain self-control
- 2.5 grade point average and good attendance to earn fire card
- Be able to pass a physical demands test.
- Minimal discipline issues from homeschool
- Physical needed each year prior to the start of the school year
- Driver's Licenses needed by December of the student's senior year

POTENTIAL CAREERS

- Corrections Officer, Emergency Dispatcher, Retail/Industrial Security Specialist, Store Detective, Private Investigator, Public Safety Officer, Firefighter

PROGRAM NOTES

- Students should be willing to work in all types of weather outdoors.
- Exemplary attendance is also essential for this program.
- Students in this program work with potentially dangerous equipment. All students must be able to work independently and must be able to accurately follow directions for safety reasons.

RECOMMENDED ACADEMIC STRENGTH AREAS

MATH	SCIENCE	ELA	TECH
Measurement Ratios Conversion Statistics	Forensics	Reading Speaking Writing	Independent online work *Advanced computer skills

BEYOND THE CORE COURSE REQUIREMENTS

* It is strongly recommended that students entering this program have already passed a high school level Algebra I course with a C or higher.

CREDENTIALS/ASSESSMENTS

- Credentials/certifications offered:
  - FFI & FFII (12)
  - EMT (12)
  - Certified Protection Officer (6)
  - Dispatch (4)
  - NIMS 100, 200, 700, 800 (10)
  - First Aid/CPR (1)
- Must be OSHA certified (will take course at MCCTC)
- Basic ADA Accommodations Permitted Only

COLLEGE CREDIT OPTIONS

- CCP Courses on site in English, Math, and the Applied Sciences
- Additional College Credit through MCCTC agreements with partner universities

CAREER EXPLORATION RESOURCES

Security PPT or PDF