

Valley STEM FAQ 2023-2024:

Q: What will my diploma say?

A: Currently, there are only grades 9 and 10 at Valley STEM, so you would receive a diploma from your home school if you return. If you attend MCCTC as an 11/12th grader, you would receive a diploma from homeschool like current CTC students.

Q: Can I follow the dress code of my home district?

A: The expectation is that students dress professionally. The Valley STEM+ME2 Academy respects the individuality of its students within the parameters of business casual attire. They should treat every day as an opportunity to look and dress the part of a young adult about to enter the real world.



Q: Can I still participate in extracurriculars and sports in my home district?

A: STEM students will be eligible to participate in all athletics and **extracurricular** activities in their district of residence. Students are subject to the same rules and fees as all other students in that district. Co-curricular activities (those that occur during the school day) are at the discretion of the home district. Please contact your district of residence for more information.

NOTE: If you open-enrolled into your previous school, athletic eligibility would fall back to your *district of residence*.

Q: Can I attend pep assemblies at my home school?

A: This is at the discretion of the home district. In most cases, schools allow this (although some do not). You are allowed to participate in extracurricular activities in your home district (see above). Please contact your district of residence for more information. Other events are at the discretion of the home district.

Q: What if my child wants to take band or choir at the home district?

A: We will work with the home districts on flexible solutions on a case-by-case basis. Students are entitled to participate in extracurricular activities. **If band or choir are co-curricular**, it is up to the home district whether to allow participation.

Transportation/Location

Q: Where is the school located?

A: The school will be on the campus of MCCTC (7300 N. Palmyra Rd. Canfield, 44406). No additional transportation will be required, since the Valley STEM + ME2 Academy schedule will mirror that of the MCCTC. Transportation is provided by the home district for our partner schools, as **required by law**. Transportation from Youngstown City or schools outside of Mahoning County is not provided, and in this case students would need to secure a ride.

Q: I want to drive my student to school - where do I drop off?

A: Exact driving patterns and drop-off locations will be posted on the website in the summer prior to the start of the year.

Q: Can I visit to take a tour of the location where my student will attend class? If so, when?

A: Yes, tours are offered year-round. Contact Jessica Cene at jessica.cene@mahoningctc.com to schedule one at your convenience.

College

Q: How do colleges view students who attend STEM schools?

A: All graduation requirements are offered for students who attend the STEM school, and prepare students for college. Students who successfully complete 9th and 10th grade at Valley STEM will be on track for one of the graduation pathways.

Q: Can students still participate in college credit plus options?

A: Yes. We have offerings for students in STEM. Contact Cassandra.pсарas@mahoningctc.com for more information. This is a priority for our students.

Q: What is STEM Education?

A: “STEM” stands for science, technology, engineering and mathematics, but it is far more than just an acronym. While originally designed to encourage more students to pursue careers in these specific areas, STEM education has evolved into a unique approach to teaching and learning that fosters creative and innovative thinking in all students. STEM education is a direct response to the realization that other states and nations are gaining competitive advantage by asserting their scientific and technological leadership. Ohio’s future will be built on its own capacity for innovation, invention and creative problem solving.

Q: How is STEM education different from a traditional approach to education?

A: “STEM schools are centers of creativity and innovation that provide challenging, student-centered, inquiry-based educational experiences that are cross-disciplinary in nature and relevant to the real world. In a partnership with traditional schools, STEM education emphasizes the technological design process and integrates subjects to emphasize connections across disciplines. In a STEM classroom, students develop analytical and creative skills through investigation and problem solving. STEM moves beyond an emphasis on simple test performance and focuses instead on developing higher-level thinking skills. STEM education typically features strong levels of collaboration among education, business and community partners. Partners help develop relevant curriculum and provide internships, mentorships and co-operative education opportunities to allow students to connect classroom learning to the real world.” - *Ohio STEM Learning Network*

Q: Is it true that STEM education is only for a small, select number of students interested in careers in math and science fields?

A: “Not at all. While increasing the number of young people who choose careers in STEM fields is certainly one objective driving STEM education, it is only part of the story. STEM education develops skills that have a much broader application. STEM education emphasizes collaboration, communication, research, problem solving, critical thinking and creativity. These are skills that all students must have to be successful in today’s world, no matter their specific interests or career goals. STEM education also places a strong emphasis on personalizing educational experiences to best suit students’ individual learning styles and interests, which means STEM education has something to offer to every student.” - *Ohio STEM Learning Network*

Q: How does STEM education benefit Ohio?

A: “STEM education is really about developing globally competent talent. As such, STEM education is a key strategy for Ohio’s economic success – for stimulating economic development in our state and creating economic opportunity for our citizens. A STEM-literate workforce will attract investment and jobs, and good jobs and economic opportunity will attract and retain world-class talent. More specifically, the development of Ohio’s growing network of STEM schools is driven by, and linked to, regional economic strengths and workforce needs. Business, informal education and community partners play a vital role in helping to ensure that

STEM learning experiences develop the highly skilled workers that local and regional employers need to compete globally.” - *Ohio STEM Learning Network*

Admission

Q: My child does not live in Mahoning county, can they attend?

A: Absolutely! The STEM designation from the state allows students from all over the state to apply to attend. Any student in any district can apply. The school is open-enrollment statewide; however transportation will not be available to students in Youngstown City and those who reside outside of Mahoning County.

Q: When is the application deadline? How can I apply?

A: The application will be located on the website at <http://mahoningctc.com/valley-stemme2-academy> when the application window opens. There are no academic admission criteria – all students who apply during that time have an equal chance of being accepted (unless on a list of students given preference-see below). Students must be at grade level to start, and cannot have been expelled from previously.

Q: Does my student need a certain GPA or attendance requirements to get in the school?

A: No. The STEM designation means that we must be a non-selective school, and is not based on prior academic success. Students cannot have any expulsions from any district. Valley STEM is a rigorous program, where certain prerequisite skills will help promote success. Students must be at grade level.

Q: What does non-selective mean? Is it based on a first-come-first-serve basis?

A: Non-selective means that we cannot select the students that we want to attend the school based on set criteria. To be admitted into the school the student and guardian must first fill out the application, located on the Valley STEM home page. The application goes into a database and is assigned a number based on the time it is received. If more students apply than we have spots for then a blind-lottery is done in order to determine which students get in. This is the same procedure that is done in all STEM schools. There are no academic admission criteria – all students who apply during that time have an equal chance of being accepted (unless on a list of students given preference-see below). Once the student is waitlisted (if lottery is necessary) then they are admitted in order of application time and date if there is an opening.

How is the success of Valley STEM measured?

3326.17 Annual report card for each school.

(A) The department of education shall issue an annual report card for each science, technology, engineering, and mathematics school that includes all information applicable to school buildings under section [3302.03](#) of the Revised Code.

(B) For each student enrolled in a STEM school, the department shall **combine data regarding the academic performance of that student with comparable data from the school district in which the student is entitled to attend school** pursuant to section [3313.64](#) or [3313.65](#) of the Revised Code for the purpose of calculating the performance of the district as a whole on the report card issued for the district under section [3302.03](#) of the Revised Code.

(C) The department also shall compute a rating for each group of STEM schools that is under the direction of the same governing body, as authorized under section [3326.031](#) of the Revised Code, and issue a distinct report card for the group as a whole.

(D) Each STEM school and its governing body shall comply with sections [3302.04](#) and [3302.041](#) of the Revised Code, except that any action required to be taken by a school district pursuant to those sections shall be taken by the school. However, the school shall not be required to take any action described in division (F) of section [3302.04](#) of the Revised Code.

Q: Can you explain the differences between a STEM school and a charter school?

A:

Charter Schools	STEM Designated Schools (Valley STEM + ME2)
The student is only part of that school.	The student is a STEM school student and a student of the district in which they reside.
State assessment scores remain at the charter school	State assessment scores are shared between the STEM school and home district.
Need sponsors and have authorizers established by statute or approved by the State Board of Education.	Does not need a sponsor. Develops a governance board that is a mixture of public school officials, business and industry leaders and higher education personnel.
Operate independently of any school district.	Partner with local school districts.
Charter schools can be Pre-kindergarten to 12th grade.	STEM designated schools can only be 6th through 12th grades.

Q: How is a STEM School Funded?

A: The foundation money provided by the State will be used to fund the STEM school for each child that attends. The money for funding “follows the student” from the district of residence.

Q: Are there any other STEM schools?

A: Visit <http://www.osln.org/schools/> or a full list of STEM designated schools. Valley STEM + ME2 was the first STEM designated high school in Mahoning County.

Q: What happens to my student after their 10th grade year?

A: They will identify a career pathway to follow based on the interest they gained in the 9th and 10th grades to focus on for 11th and 12th grade. They will go into a more focused program based on their area of interest. After sophomore year, students can choose to follow pathways to the MCCTC (as long as admission criteria is met) in Engineering, STEM, Clean Energy Technology, Advanced Manufacturing, Biotechnology, Allied Health, Informational/Computer Technology, or any of the 20 programs at MCCTC. Students who meet MCCTC admission requirements will be given the first application date for MCCTC. If a student does not want to attend MCCTC, they have the option to return to their home district. The student population averages over 95 % retention from STEM to MCCTC. If a student decides to return to their home district, all credits will transfer, and will be integrated onto the home school transcript.

Q: Is the STEM Academy part of MCCTC? Are STEM Students MCCTC Students?

A: The STEM Academy is housed at MCCTC, but it is not a Career Tech Program. The location is advantageous for transportation purposes, and access to additional high-tech equipment and resources. The content learned in grades 9 and 10 at the STEM Academy will segway into 11-12 programs if the student chooses (and meets MCCTC admission requirements). After sophomore year, students can choose to follow any of the 20 career pathways offered at MCCTC (as long as all criteria are met). If a student does not want to attend MCCTC, they have the option to return to their home district. All credits will transfer, and will be integrated onto the home-school transcript. Click here for the [STEM versus MCCTC Quick Reference Guide](#).

The MCCTC follows the *Academy Philosophy*. The philosophy behind this model is to increase collaboration between career technical program instructors and content teachers serving as a conduit to colleges and industry. This structure will provide increased opportunity for alignment of career technical competencies with industry credential requirements, as well as cross-content integration of content standards, and prepare students for college. The Academy Concept maximizes the opportunities provided for career technical students, making their experience in school as relevant as possible, preparing them for life in college, and their future careers. The model is output-driven.

2023-2024 MCCTC Grades 11-12 Offerings



Arts Academy

Program	Credentials Offered/Points	CTAGs
Creative Art and Design	Adobe Credentials (Illustrator, InDesign, & Photoshop) 4 points each, total of 12 points Occupational Safety and Health Administration (OSHA10) (1pt) FEMA NIMS (10) CPR/First Aid (1)	Visual Creation - CTVDI001 - Design and Typography Fundamentals 3 semester hours Advertising and Communication - CTVDI002 - Fundamentals of Advertising and Communication 3 semester hours
Cosmetology	Ohio State Board of Cosmetology License (12 points) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) FEMA NIMS (10)	
Culinary Arts	Prostart Certification (9 points) Serve-Safe Certification (3 points) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) FEMA NIMS (10)	Hospitality Fundamentals - CTCF002 - Introduction to Hospitality and Tourism - 2 semester hours Fundamentals of Food Production - CTCF005 - Basic Food Production - 4 semester hours Baking and Pastry Arts - CTCF010 - Baking and Pastry Arts - 3 semester hours
Early Childhood Education	CDA (12) Communicable Diseases (1) Child Abuse (1) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) FEMA NIMS (10)	Health, Safety, and Nutrition - CTECE002 - Health, Safety, and Nutrition - 2 semester hours Early Childhood Education Principles - CTECE001 - Introduction to Early Childhood Education - 3 semester hours Infant and Toddler Education - CTECE003 - Infant and Toddler Curriculum - 3 semester hours



Program	Credentials Offered/Points	CTAGs
Exercise Science & Physical Therapy Tech	Personal Trainer (3) EMT (12) CPR/First Aid (1) Occupational Safety and Health Administration (OSHA10) (1pt) Physical Therapy Technician (12) FEMA NIMS (10)	Exercise and Athletic Training - CTES001 - Introduction to Exercise Science - 3 semester hours Fitness Evaluation and Assessment - CTES002 - Fitness and Health Foundations - 3 semester hours
Allied Health & Pre-Nursing	STNA (12) Phlebotomy(12) Physical Therapy Technician (12) Patient Care Technician (12) Clinical Medical Assistant (12) EMT (12) EKG Technician (3) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) FEMA NIMS (10)	Medical Terminology - CTMT001 (OAN OHL020) - Medical Terminology 3 semester hours
Engineering & Robotics	AutoCAD/Inventor (4 points) FANUC/MOTOMAN (6 points) NCCER Core (6) Autodesk AutoCA User (4) Autodesk Inventor (4) OSHA10 (1)Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) FAA Part 107 (6) FEMA NIMS (10)	Engineering Principles - CTEGT001 - Introduction to Engineering (TAG Course OES001) - 1 semester hour Digital Electronics - CTEET002 - Digital Electronics (TAG Course OET002) - 4 semester hours Unmanned Aircraft Systems - CTAIR006 - Unscrewed Aircraft Systems (TAG course ITAIT006) - 3 semester hours

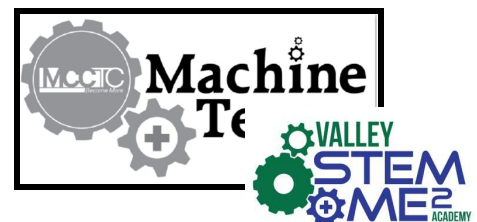
<p>Biomedical Science</p>	<p>EMT (12) CPR/First Aid (1) Occupational Safety and Health Administration (OSHA10) (1pt) **<i>Biology 1 and 2, Youngstown State CCP</i> **<i>Chemistry 1, Youngstown State CCP</i> *<i>Medical Terminology</i> FEMA NIMS (10)</p>	<p>Medical Terminology - CTMT001 (OAN OHL020) -Medical Terminology 3 semester hours Biotechnology for Health and Disease - CTBT001 - Biotechnology Principles 3 semester hours</p>
<p>Animal Science</p>	<p><i>TBD: **Biology 1 and 2, Youngstown State CCP</i> **<i>Chemistry 1, Youngstown State CCP</i> *<i>Medical Terminology</i> Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1) Elanco Animal Science (6) Elanco Vet Medical (6) FEMA NIMS (10)</p>	<p>Animal Science & Technology - CTASM001 - Introduction to Animal Science - 3 semester hours</p>
<p>Software Development</p>	<p>Expert Photoshop CC (4pts); Microsoft Office Specialist Powerpoint 2013 (3pts); ; CIW Web & Mobile Design Professional (4pts); CIW Web Design Professional (4pts); CIW Web Development Professional (4pts) CIW Web Foundations Associate (4pts), Google Ads (3pts), Google Analytics (3pts), OSHA 10(1pt), CPR First Aid (1pt), IC3 Digital Literacy GS6 (2pt), CIW Site Development Associate (3pts), CIW User Interface Designer (3pts), Unity Certified User: Programmer (3pts), Oracle Certified Associate - Java (6 pts), Microsoft Azure AI Fundamentals (4 pts), Microsoft Azure Data Fundamentals (4 pts), Microsoft Azure Fundamentals (4 pts) FEMA NIMS (10) CPR/First Aid (1) Occupational Safety and Health Administration (OSHA10) (1pt)</p>	<p>Programming - CTPROG001 - Introduction to Programming 3 semester hours Object Oriented Programming - CTPROG002 - Java Programming 3 semester hours Visual Programming - CTIT012 - Microsoft .NET Fundamentals 3 semester hours Web Design - CTIM004 - Introduction to Web Development 3 semester</p>
<p>Computer Networking & Cybersecurity</p>	<p>CompTIA A+ (6pts); CompTIA Network + (6pts); IC3 (2) CompTIA IT Fundamentals (6 pts) EC-Council Ethical Hacking Associate (4 pts) Microsoft Office Specialist Excel 2016 (3pts) Microsoft Office Specialist Word 2016 (3 pts) EC-Council Cyber Forensics Associate (4 pts) FEMA NIMS (10)</p>	<p>Computer Hardware AND Computer Software - CTIT014 - Operating System, Hardware Operation and Maintenance/A+(Requires 145030 and 145025) 3 semester hours (for both courses) Network Security - CTIT006 -</p>

	CPR/First Aid (1) Occupational Safety and Health Administration (OSHA10) (1pt)	Introduction to User Support 3 semester hours
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Global Academy

Program	Credentials Offered / Points	CTAGs
Aviation Maintenance	(FAA) Powerplant Mechanic(12pts) (FAA) Airframe Mechanic(12pts) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1) FEMA NIMS (10)	Aviation Maintenance General - CTAIR002 - Aircraft Ground Operations - 3 semester hours
Public Safety	FEMA NIMS 100, 200, 700, 800 (10) Dispatch (4) ASP Baton (1) FFI & FFII (12) EMT (12) CPR/First Aid (1) Occupational Safety and Health Administration (OSHA10) (1pt)	Earning both Firefighter I and Firefighter II CREDENTIALS is worth 11 semester hours CTFF003 Earning EMT Credential is worth 7 semester hours CTEMS002
Building Construction & Remodeling	NCCER Core (6pts) NCCER Level 1 (6pts) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)	Carpentry and Masonry Technical Skills - CTCON003 - Construction Methods and Materials (OAN OET016) - 3 semester hours
Electricity	NCCER Core (6pts) NCCER Level 1 (6pts) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)	Plan Reading - CTCON001 - Plan Reading - 3 semester hours



Machine Team

Program	Credentials Offered/Points
Advanced Manufacturing	NIMS Measurement Material and Safety Certification (ALL LABS CAN EARN) NIMS Turning Operations: Turning Between Centers Certification NIMS Turning Operations: Turning Chucking Skills Certification NIMS Job Planning, Benchwork, and Layout Certification NIMS Drill Press Skills Certification (ALL LABS CAN EARN) NIMS CNC Milling: Operator Certification NIMS CNC Milling Programming Setup and Operations Certification NIMS CNC Turning: Operator Certification NIMS CNC Turning: Programming Setup and Operations Certification Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)
Custom Auto Paint & Design	ASE Collision Mechanical and Electrical Certification ASE Collision Non Structural Analysis and Damage Repair Certification ASE Collision Painting and Refinishing Certification ASE Collision Structural Analysis and Damage Repair Certification ICAR 12points Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)
Diesel Power Tech	ASE Medium Heavy Truck Brakes Certification ASE Medium Heavy Diesel Engines Certification ASE Medium Heavy Truck Electrical Systems Certification ASE Steering and Suspension Certification Fork Lift / Man Lift (2 points each) Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid (1)
Welding	SMAW 1G AWS Welding Qualification (ALL LABS CAN EARN) SMAW 1G AWS Welding Certification

	<p>SMAW 3G AWS Welding Qualification SMAW 3G AWS Welding Certification SMAW 6G AWS Welding Qualification GTAW 1G AWS Welding Qualification GTAW 3G AWS Welding Qualification GMAW 1G AWS Welding Qualification GMAW 3G AWS Welding Qualification FCAW 1G AWS Welding Qualification FCAW 3G AWS Welding Qualification Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)</p>
<p>Auto Tech</p>	<p>ASE Automotive Engine Certification ASE Automotive Brakes Certification ASE Automotive Service Certification ASE Automotive Electrical System Certification ASE 609 Certification (ALL LABS CAN EARN) ASE Heating and Air Conditioning Certification ASE Maintenance and Light Repair Certification ASE Automotive Manual Drive Train and Axle Certification ASE Automotive Steering and Suspension Certification (ASE Student) - 10 Tests for 3pts per test. Occupational Safety and Health Administration (OSHA10) (1pt) CPR/First Aid(1)</p>

Q: How will physical education and health requirements be met?

A: Students may opt to take PE online during their 9th or 10th grade years or use the varsity letter sport option, if it applies. Credit flex opportunities apply in a STEM designated school. Students can also take PE in summer school at their home district prior to enrolling in STEM.

Q: What opportunities are available for students to take a foreign language?

A: Foreign language will be offered in an online learning format. Students will have the option to choose which language is taken. Current foreign language course offerings include Spanish and American Sign Language (ASL).



Q: Is this only a 9th and 10th grade school or is it 9th through 12th? Why?

A: One of our goals is to provide the student with additional options. We will have 9th through 10th grade courses, which will include college courses and career-technical education courses. During the 9th and 10th grades students receive a more generalized STEM education with courses that are introductory to the pathways they can specialize in during 11th and 12th grades

Q: Have you thought about the districts' valedictorian/salutatorian requirements? Each district has a different policy; how are you going to meet the students' needs?

A: When they return to their home school district starting in 11th grade they will have completed enough coursework to allow them time to take the district required AP or honors courses at the 11th and 12th grade level. Valedictorian requirements are set by the home districts and vary. Their diploma would come from their home district. We have had several students attend STEM, then the MCCTC, and be named Valedictorian of their home district.

For the purpose of college applications and credits, letter grades and GPAs will be calculated on a yearly basis, or whenever the student transfers out of the STEM school in order to be reported back to the home district.

Q: Who will be required to keep track of the students' credits and state test results?

A: The STEM school will track the student's credits and state test results, but the home district may as well. The students' scores are shared between the STEM school and their home district for accountability (this is in Chapter 3326 of ORC on STEM schools-see above).

