



Did you know?

Mechanical/Architectural Engineering & Design (MAED)

Program Description:



As part of this program, you get to choose to specialize in either mechanical or architectural engineering. Drafting is a graphic language used by industry to communicate ideas and plans from the business to design/create through production. Drafters plan, prepare, and interpret drawings and sketches. Materials, equipment and tools common to the Engineering, Architectural and Graphic Design careers are used to teach skills. Students are introduced to the design world by learning a 3D CAD system that will allow them to create and model parts and assemblies. The opportunity to learn CNC is also incorporated into this course. They will learn to use the various CAD systems used in both the Architectural and Engineering fields, and apply them to real world projects and assignments. Emphasis throughout the program will be on safety while in the classroom and in the industrial and construction environment.

This program is for those students interested in the following career exploration:

- ✓ Manufacturing
- ✓ Mechanical Engineering
- ✓ Architectural Engineering
- ✓ CNC Mill/Lathe Operation/Programming
- ✓ FANUC Tool Handling and Operation

Program Highlights:

- ✓ Participate in Skills USA
- ✓ Receive OSHA Certification
- ✓ Experience On-the-Job Training (OJT)
- ✓ Option to earn up to 14 credits from Mid-Michigan College



"The classroom experiences at HATC helped me to **narrow down my career interest**. In addition, the on-the-job training that I had gave me **experience** that helped me gain **real-world knowledge** in my chosen career field. While attending the MAED program, I also **earned 14 college credits** through Mid-Michigan Community College. These college credits allow for financial savings and a head start on earning my Associate's Degree."

-Austin, 2020

Meet your instructor:

Mr. Ruth

Mr. Matthew Ruth graduated from Saginaw Valley State University with a Bachelor's Degree in Applied Studies along with an Associate's Degree of Applied Science in Industrial Technology Education from Delta College. He has experience working in architectural design as well as robotic design. His favorite part of teaching the Mechanical/Architectural Engineering and Design program is working with students.



What can you do in this program that is unique?

Students have the option of taking the following college courses through Mid-Michigan College (MMC) as a part of this program. Currently, the HATC partners with Gemini Group who releases an employee to come to the HATC to teach AIM113 and AIM116 one day each week while Mr. Ruth teaches the DRF 120 and DRF210 courses.

AIM 113	Intro to CNC Machining offered in MAED Fall Semester for second year students. (4 credits)
AIM 116	Intro to CNC Programming offered in MAED Winter Semester for second year students. (4 credits)
DRF 210	Intro to SolidWorks offered in MAED Winter Semester for first year students. (3 credits)
DRF 120	Intro to AutoCAD offered in MAED Fall Semester for first year students. (3 credits)

What do students have to say?

"The MAED program has helped me decide my career path. It gave me direct, hands on experience in the engineering field which prepared me for college." – Luke, 2019

"Mr. Ruth's class prepared me for the workforce. It gave me the hands-on experience that I needed to start my career at Gemini." – Michaela, 2019

"I want to thank you for all that you have taught e and for the great experiences and opportunities that I had at tech center this year. My only regret is not joining your class sooner. If it wasn't for your class, I still would have no clue about what I want[ed] to do during and after college." – Sean, 2020

Articulation Agreements

Articulation agreements are made between colleges and the HATC, which give students an opportunity to earn college credit at an institution for being a completer in their HATC program.

Students are encouraged to seek more information from their instructors. The following agreements are in place for this program at this time:

[Delta College](#)
[Ferris State University](#)
[Mid-Michigan College](#)

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For more information or to enroll, please contact:

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