



MAKING THE Connection TO Career Technical Education

Thursday, March 16, 2017

WARREN

Career Prep Center offers Emergency Medical Services course

The Emergency Medical Technician (EMT) course offered at the Warren Career Prep Center (CPC) is an amazing learning experience. It is equivalent to the State certified program which is offered at Macomb and Oakland Community Colleges.

Warren Consolidated Schools affiliation with MCC and OCC allow for college credit opportunities upon completion.

In this course students obtain the knowledge and skills necessary for a sustainable career in emergency medicine. It encompasses training for a variety of both medical and traumatic life threatening emergencies.

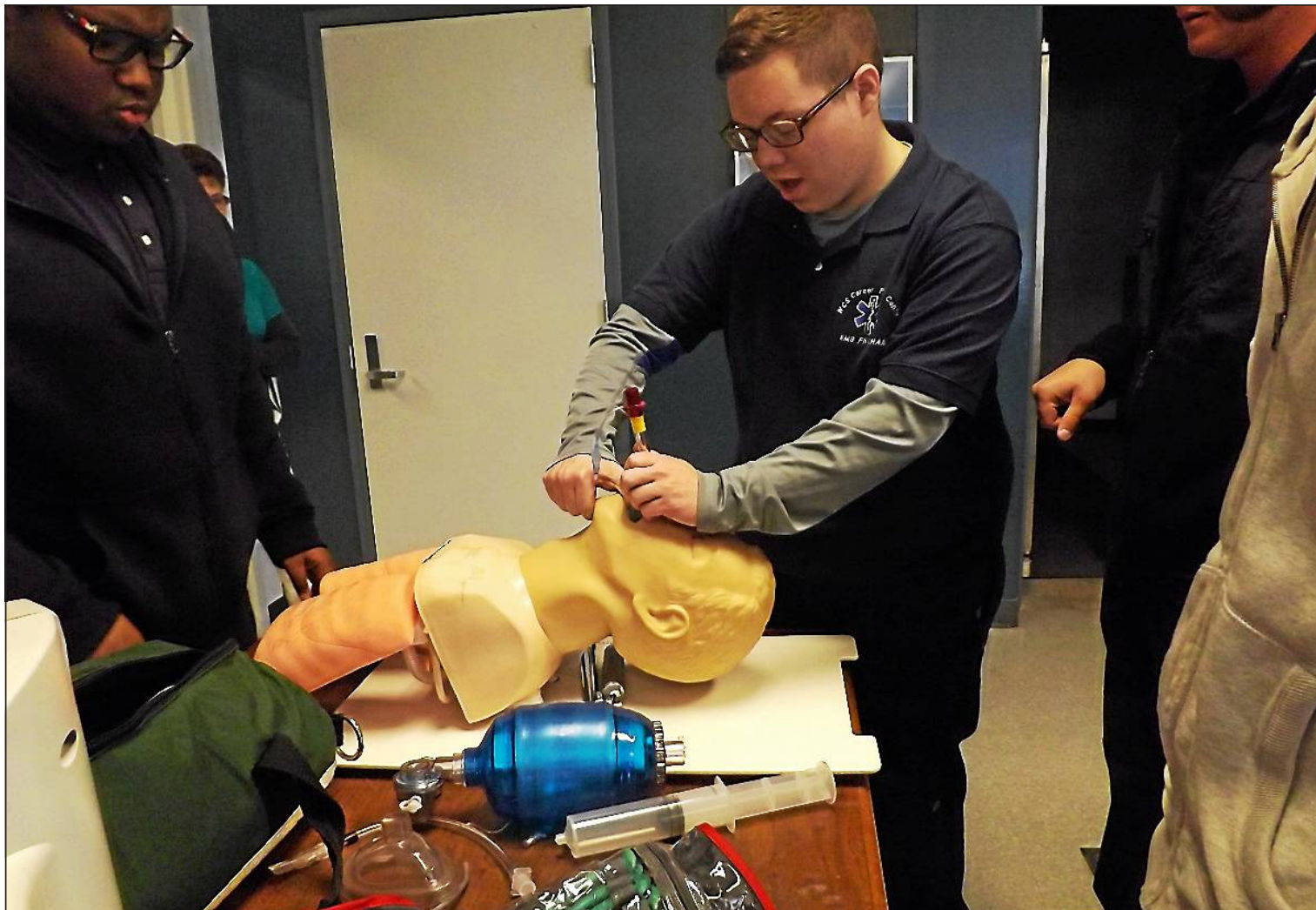
The main focus of this program is to educate students on how to become a proficient and confident EMT in the Emergency Medical Services field.

An exciting element of the EMT class at CPC is the opportunity to apply these acquired skills to the real world!

Clinical rotations are performed on ambulance shifts with a crew of two licensed EMT's out of Universal Macomb Ambulance or Medstar Ambulance, and also in St. John Macomb Hospital working side by side with the ER staff.

If perhaps the clinical setting isn't feasible, and academic requirements are met, students may alternatively obtain National Registry Certification and licensure as an Emergency Medical Responder once they've graduated.

If both the clinical and academic state requirements are met, our students earn the amazing opportunity to test and receive National Registry Certification for EMT once they reach age 18. On successful completion, Michigan will issue the candidate an EMT medical license and they are eligible to work



SUBMITTED PHOTO

Noah Ouellette of Parkway Christian School (right) and Lawrence Wade of Community High School practice their skills.

immediately.

Licensed CPC alumni that have expressed a desire to work as an EMT have all been employed within months of graduating high school.

EMT is a great stepping stone course for many career paths. Most licensed EMT's aspire to further their education and excel into other careers such as Paramedic,

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Firefighting, Law Enforcement, U.S. Navy, Nursing and Physician. To facilitate employability in these professions, students will

obtain additional certifications that include American Heart Association CPR, Hazardous Materials (HAZMAT) and Incident Command Systems (ICS).

CPC is dedicated to preparing EMT students, and guiding those that wish to pursue advanced professional careers by combining on the job experience with a college level education.

Alumnus parlay CTE skills into successful 3D printing business

3D printers have been around for years - decades, even. Their use has primarily been restricted to academic or industrial environments.

Until now!

Three years ago, Jacob Hernadi discovered 3D printing when he toured the Warren Career Prep Center (CPC) as a prospective student. He set a goal to find a way to own a 3D printer at an affordable price for his personal use. "I was able to find a really cheap, out-dated 3D printer," said Jacob. "I just used it as a learning platform."

After about six months, Jacob was ready to move on to a newer version that he could assemble himself. He did research on the components and software required to design and build a quality 3D printer for home use, and started shopping for parts.

"It took me about three months and a little over \$100 to purchase what I needed to build it," Hernadi said. "It was essentially a kit that I found online and I bought all the parts I needed from various suppliers." Once built, Jacob began studying the design of the 3D printer so he could make improvements to it. He immediately noticed flaws in the design that made the printer heavy, inaccurate, and very hard for beginners to assemble and work with.

Jacob then discovered another 3D printer kit that was promoted as easy to assemble, easy to use,



Jacob Hernadi, a graduate of the CPC CAD program, is already earning money from the 3D printing skills he learned in the program.

lightweight and reliable.

"None of that turned out to be true," he said. "It was difficult to assemble and produced very low quality parts, so I decided to create my own kit."

During the next three months, Jacob used the skills he learned in the Pre-Engineering and Computer-Aided Design (CAD) class at CPC to design and create a prototype 3D printer.

Jacob custom designed the parts so they could be printed on any 3D printer.

"I found a design that was light, but incredibly inaccurate," he said. "I revised this design using SolidWorks, keeping the principle of the model, but I redesigned all of the core components to make them stronger



so they'd provide a more accurate part."

This custom 3D printer was comprised of 3D printed parts and basic hardware, with a few specialty parts that commercial grade 3D printers use to ensure quality printing.

In designing this 3D printer, Jacob set goals for the project with customers in mind.

"I was able to create a quality, lightweight, quiet, and affordable 3D printer," he said. "It has the same quality as printers that cost thousands of dollars."

The cost to purchase Jacob's

initial 3D printer prototype was just under \$400.

Jacob graduated in 2016 and is currently attending Lawrence Technological University.

He has turned his dorm room into a 3D printing Lab. He has made his 3D printers available for use by students for a fraction of what it would cost to have the university print their parts.

"I charge less and have a lot more filament colors to choose from," he said. He has also developed several different variations of his initial 3D printer kit.

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Jacob Hernadi

resin and six kits that use PLA plastic and metal filaments," he said.

Jacob markets his 3D printers, services and parts in a number of ways.

"I use social media - Instagram, mostly - and I put up flyers all around campus," he said. Business has been very good for him. "I'm making money to pay for school and that's what's most important right now."

Jacob currently produces 3D printing kits and 3D printed parts that he sells under his business name - J2H Labs.

The kits are available for purchase through his Etsy store - etsy.com/shop/j2hlabs.

He is also employed by Piper Industries where he runs a 3D printer and does design work using SolidWorks.

His future plans include a career in 3D printing working with self-replicating 3D printers.

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