

COMPUTER-AIDED DESIGN

2020-2021



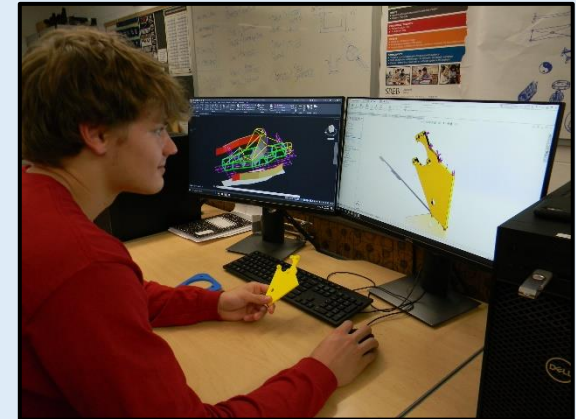
Computer-Aided Design is developed for students interested in a career in the drafting and engineering fields of mechanical, civil, and architectural design. Using state-of-the-art computers and design software, students learn the drafting and engineering concepts required to generate high-quality industry standard drawings. Additionally, this program prepares junior students for a wide array of post-secondary and career options through the Advanced Career Automated Materials Joining Technology curriculum. By fusing a rigorous academic core with challenging project work and advanced technology in a career pathway program of study, Advanced Career Automated Materials Joining Technology curriculum gives students a greater depth of knowledge and skills to prepare them for more options after high school. Computer-Aided Design is part of the Advanced Manufacturing Academy. Senior students have the opportunity to engage in advanced-elective course work in any of the manufacturing areas: Computer-Aided Design, Precision Machining, Robotics & Automation, and Welding. This opportunity provides students with a more diverse skill-set to enter a career in manufacturing.

Program Highlights:

- Visualize and construct 3D models and prototypes for architectural and mechanical designs
- Find creative solutions to complex engineering and architectural challenges
- Use the same advanced software and modern equipment as professional engineers and architects

The Program Focuses on the Following State Approved Courses:

- Automated Materials Joining Technology Course 1 – Introduction to Automated Materials Joining
- Engineering Design
- Principles of Manufacturing (Engineering Principles)
- Plan Reading



COST-FREE COLLEGE CREDIT OPPORTUNITIES

College Credit Plus through Owens Community College

- CAD 117: Introduction to Board & CAD Drafting (3 Credit Hours)
- CAD 210: Introduction to 3D Modeling-CAD 1A (3 Credit Hours)
- CAD 215: Advanced 3D Modeling-CAD 2A (3 Credit Hours)

Career Technical Assurance Guides (CTAGs)

- CTS001: OSHA 10-Hour Safety (1 Credit Hour)

INDUSTRY-RECOGNIZED CREDENTIALS (POINT VALUES)

- AutoCAD User (4 Points)
- Autodesk Inventor Certified User Certification (4 Points)
- Certified Solid Works Associate (CSWA) (4 Points)

OHIO MEANS JOBS OCCUPATIONS LISTED ACCORDING TO TYPICAL SALARY

OCCUPATION TITLE	TYPICAL SALARY- BOTTOM 10%	TYPICAL SALARY- MEDIAN	TYPICAL SALARY- TOP 10%	EDUCATION LEVEL	ANNUAL JOB OPENINGS
Mechanical Drafters	\$34,600	\$55,980	\$83,010	Associate's Degree	220
Civil Engineering Technicians	\$35,830	\$58,930	\$80,730	Associate's Degree	190
Mechanical Engineers*	\$53,060	\$79,520	\$120,230	Bachelor's Degree	1,170
Civil Engineers*	\$55,360	\$79,460	\$122,580	Bachelor's Degree	650
Industrial Engineers*	\$55,610	\$80,630	\$121,120	Bachelor's Degree	1,100
Architectural and Engineering Managers*	\$90,750	\$130,040	\$193,420	Bachelor's Degree	500

JOB OUTLOOK COMPILED BY OHIO MEANS JOBS AS OF OCTOBER 2020; VISIT OHIOMEANSJOBS.COM FOR MORE INFORMATION.

*Denotes an In-Demand Occupation in the State of Ohio

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EDUCATION WITH PURPOSE

CAREER TREE



TECHNICAL CAREERS

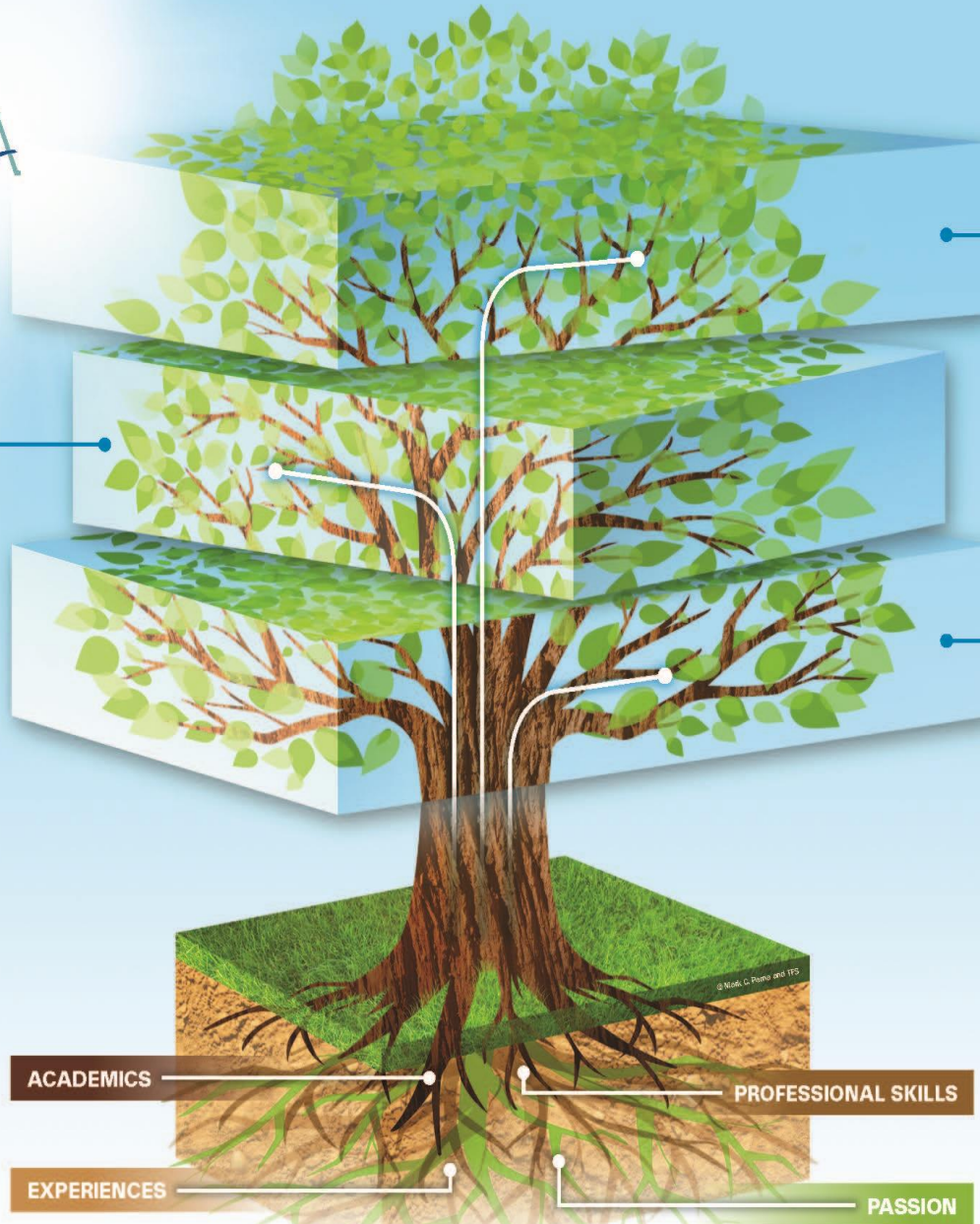
- CAD Technician
- Structural Detailer
- Surveyor
- Architectural Detailer
- Architectural Illustrator
- CAD Program Trainer
- Specification Writer
- Construction Project Manager
- Project Estimator

PROFESSIONAL CAREERS

- Architect
- Structural Engineer
- Mechanical Engineer
- Civil Engineer
- Chemical Engineer
- Biomedical Engineer
- Industrial Engineer
- Industrial Product Designer
- Landscape Architect
- Interior Designer
- Teacher
- Urban Planner

ENTRY-LEVEL CAREERS

- Manufacturing Sales Representative
- Draftsman
- CAD Technician
- Revit Technician
- 3D Modeler
- Interior Design Assistant
- Electrical Draftsman
- Construction & Building Inspector
- Architectural Project Assistant
- Mold Designer



COMPUTER-AIDED DESIGN



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