

COMPUTER-AIDED DRAFTING (CAD), CERTIFICATE OF PROFICIENCY



This program is for students who wish to acquire computer drafting skills for entry-level positions in a variety of industries. Students will get background knowledge to aid them in developing 2D drawings with an introduction to 3D CAD.

Program contact: Learn more (<http://www.tri-c.edu/programs/engineering-technology/manufacturing-engineering/computer-aided-drafting-cad-certificate.html>)

This certificate will be automatically awarded when the certificate requirements are completed. If you do not want to receive the certificate, please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more (<http://catalog.tri-c.edu/pathways/industrial-manufacturing-construction/manufacturing-industrial-engineering-technology>) about how certificate credits apply to the related degree.

Gainful Employment Disclosure (http://www.tri-c.edu/about/disclosure/Computer_Aided_Drafting/Gedt.html)

Program Admission Requirements

- High School Diploma/GED
- Complete ENG-1010 College Composition I or ENG-101H Honors College Composition I
- MATH-0965 Intermediate Algebra with grade of "C" or higher; or appropriate score on Math placement test.
- Complete MET-1100 Technology Orientation

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Communicate effectively and efficiently with diverse individuals and teams, all levels of employees, customers, and suppliers by means of verbal, written (memos, reports, emails, etc.), graphics, symbols, and effective listening skills and using appropriate technology.
2. Complete tasks and projects on schedule through the effective use of time management, appropriate math skills, and teamwork that fosters inclusion, synergized efforts in problems identification, and troubleshooting for successful resolution of problems towards the achievement of set goals and objectives.
3. Apply quality systems, principles, and concepts, and utilize appropriate math, measurement and statistical tools and technology

to improve processes and product quality, and to enhance productivity.

4. Incorporate safety awareness, principles and practices in every aspect of work and as a way of life, including machine safety, environmental safety, chemical safety, and personal/employee protection.
5. Utilize modern CAD tools and technology and appropriate engineering drafting principles to create and revise drawings that meet design and quality specifications.
6. Apply the knowledge of the principles of drafting and the communication of ideas, designs and visualization skills as the language of the engineering field, including the creation and interpretation of drawings using proper dimensioning and tolerancing for size and geometry, and use of computer aided drawing programs to incorporate proper industry acceptable standards and conventions.

Suggested Semester Sequence

Course	Title	Credit Hours
First Semester		
HLTH-1230	Standard First Aid and Personal Safety	1
MATH-1530	College Algebra	4
MET-1100	Technology Orientation	2
MET-1120	Computer Applications and Programming	2
MET-1230	Drawing & AutoCAD ¹	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
Credit Hours		15
Second Semester		
MET-1240	Machine Tools and Manufacturing Processes	3
MET-1300	Engineering Materials and Metallurgy	3
MET-1400	CNC Programming and Operation	3
MET-2041	CAD II & GD&T	3
MET-2601	3D Solid Modeling	3
Credit Hours		15
Total Credit Hours		30

¹ MET-1200 & MET-1220 together will be accepted in place of MET-1230 Drawing & AutoCAD.