

COMPUTER AIDED DESIGN TECHNOLOGY–MECHANICAL DESIGN OPTION (ITC)

Intermediate Technical Certificate

Career-Technical Program

Interest Areas:

**Manufacturing and Trades
Science, Tech., Engr. and Math**

The Computer Aided Design Technology program offers students the opportunity to learn skills required by today's industries. Students can pursue a two-semester intermediate technical certificate, a four-semester advanced technical certificate, and a four-semester associate of applied science degree. Portions of the associate of applied science degree options may transfer to various four-year institutions. Students entering the A.A.S. degree program should be prepared to complete A.A.S. math and English requirements during the first year of the program. Placement in specific English and math courses is determined by the college placement assessments.

Current industry professionals may enroll in a single course on a space available basis and with instructor permission.

Gainful Employment Information (<https://www.nic.edu/programs/ge/104-CC1/Gedt.html>)

Program Website (https://www.nic.edu/programs/viewprogram.aspx?program_id=104)

Program Requirements

Course	Title	Credits
Semester 1		
CADT-104M	CAD Graphics I - Mechanical Applications	2
CADT-106M	CAD Graphics II - Mechanical Applications	2
CAOT-164	Computer Fundamentals for Technical Programs	1
CAOT-165	Productivity Software for Technical Programs	1
MACH-153	Precision Measuring	1
ECTE-100 or ENGL-101	Fundamentals for Writing or English Composition	3
Select one of the following:		3-5
MCTE-105	Technical Mathematics for Machining and Computer Aided Design Technologies	
GEM 3 - A.A.S. Mathematical Ways of Knowing		
Credits		13-15
Semester 2		
ATEC-117	Occupational Relations and Job Search	2
CADT-105	Descriptive Geometry	3
CADT-109	Basic Mechanical Design	4
CAOT-166	Living Online for Technical Program	1
MACH-201	Design for Manufacturing	1
A.A.S. Institutionally Designated		3
Credits		14
Total Credits		27-29

Course Key



GEM



WCHE

AAS
Institutionally
Designated

Gateway



Milestone

Program Outcomes

Upon completion of the program, students will be able to:

- Access, understand, and apply two-dimensional (2D) Computer-Aided Design (CAD) commands in a related pedagogical sequence(s), generating geometric constructs to illustrate command mastery.
- Use a computer to word process, create spreadsheets, and access the internet.
- Utilize mathematical skills to calculate, plan, and execute precision measuring techniques to validate design and manufacturing applications for parts and assemblies.
- Read, interpret and apply American National Standards Institute (ANSI) standards to produce detailed working drawings used in contemporary manufacturing.
- Demonstrate appropriate work relationships and habits, communication skills, and computational skills used in contemporary technical industries.