

# MECHANICAL TECHNOLOGY, Certificate - 4350

Engineering & Technology Department

CIP Code: 15.0805

The Mechanical Engineering Technology certificate teaches students solids modeling as well as two-dimensional and three-dimensional drafting techniques. The sophisticated, high technology of computer numerical controls (CNC) and programmable logic controls (PLC) systems for computer-assisted manufacturing is also included. The complete program is only available at the Harrisburg Campus.

## Career Opportunities

Graduates are prepared for entry-level employment as drafters or technical assistants in government or industry.

(SOC Code: 17-3013 Mechanical Drafters)

Link to occupational profiles on O\*NET: <http://www.onetcodeconnector.org/>

Application and admission information: <http://www.hacc.edu/Admissions/Apply/index.cfm>

## Competency Profile

This curriculum is designed to prepare students to:

- Draft design details and production drawings for mechanical components using a computer-aided-drafting (CAD) system
- Serve as entry-level programmers for numerical control (NC)/computer numerical control (CNC) equipment
- Install and test mechanical equipment
- Serve as aides to engineers and scientists
- Serve as apprentice machinists

## PROGRAM REQUIREMENTS (TOTAL CREDITS = 31)

General Education	Major Requirements		Other Required Courses	
	CAD 154 Computer Aided Drafting and Design	3	MATH 103 College Algebra	3
	ELEC 100 Fundamentals of Electricity and Electronics	1	MATH 104 Trigonometry	3
	ENGR 102 Engineering & Engineering – Tech Orientation	2	Program Specific Electives*	6
	ENGR 208 Microcontrollers & PLCs	3		12
	GTEC 104 Engineering Materials & Processes	3		
	GTEC 201 Statics	3		
	IA 205 Computer Numerical Control	3		
	MDES 207 Machine Shop Theory and Practice	1		
		19		

\*Select from the options below: ACCT 101; CAD 115, 164; CPS 113, 115, 135; CHEM 101; CVTE 120, 208; ELEC 100, 101, 108, 125, 126; ENGR 291; GTEC 202, 208; MDES 201, 204, 206; MDRF 101, 103; MATH 119, 121, 202; MGMT 201; PHYS 201, 202.

## RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part time students can complete this program by taking one or more courses each semester.

Fall Semester I		Spring Semester I	
CAD 154	3	ENGR 208	3
ELEC 100	1	GTEC 104	3
ENGR 102	2	GTEC 201	3
MDES 207	1	IA 205	3
MATH 103	3	Program Electives	6
MATH 104	3		

Please see the College's website at <http://www.hacc.edu/ProgramsandCourses/Mechanical-Technology-4350.cfm> for the most current Gainful Employment Information.