

MECHANICAL ENGINEERING TECHNOLOGY, Associate in Science Degree - 4700

Engineering & Technology Department

The Mechanical Engineering Technology AS program prepares students to enter the job market as mechanical engineering technicians working with prototype technologies, mechanical systems, and manufacturing processes. Coursework allows students to operate state-of-the-art computer-aided-design (CAD) systems, computer-numerical-controls (CNC) and programmable logic controls (PLC) systems. The complete program is only available at the Harrisburg Campus.

Career Opportunities

Graduates are prepared as technicians for the mechanical engineering field. Graduates are also prepared as technicians employable in the manufacturing industry.

Competency Profile

This curriculum is designed to prepare students to:

- Write and speak effectively.
- Effectively operate a solid modeling system
- Identify the student's career path
- Solve engineering problems
- Analyze static structures using trigonometry
- Prepare technical reports and manuals
- Analyze dynamic problems using trigonometry
- Identify properties of engineering materials and their common modes of failure
- Perform basic programming of CNC tools and fabricate components
- Program and operate PLC systems
- Identify global and ethical engineering issues

PROGRAM REQUIREMENTS (TOTAL CREDITS = 62)

General Education		Major Requirements		Other Required Courses
ENGL 101 English Composition I	3	CAD 154 Computer Aided Drafting & Design	3	
ENGL 104 Technical Writing	3	CAD 164 Advanced Computer Aided Drafting and Design	2	
COMM 101 Effective Speaking	3	CVTE 208 Strength of Materials	3	
Humanities & Arts Elective	3	ELEC 100 Fundamental of Electricity/Electronics	1	
Mathematics Elective - MATH 103	3	ENGR 208 Microcontrollers & PLCs	3	
Mathematics or Science Elective - MATH 104	3	GTEC 104 Engineering Materials and Processes	3	
Science w/ a Laboratory Elective	3	GTEC 201 Statics	3	
Social & Behavioral Sciences Elective	3	GTEC 202 Statistical Quality Control	3	
First-Year Seminar Elective - ENGR 102	2	GTEC 208 Strength Materials Lab	1	
Wellness	1	IA 205 Computer Numerical Control	3	
	27	MDES 201 Dynamics	3	
		MDES 204 Product Design	3	
		MDES 206 Fluid Flow	3	
		MDES 207 Machine Shop Theory and Practice	1	
			35	

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	Summer I	Fall Semester II	Spring Semester II
CAD 154	3 ENGL 104	3 COMM 101	3 CVTE 208	3 CAD 164
ENGL 101	3 ELEC 100	1 Social/Behavioral Sciences Elective	3 GTEC 202	3 ENGR 208
ENGR 102	2 GTEC 104	3	3 IA 205	3 GTEC 208
Humanities/Arts Elective	3 GTEC 201	3	3 MDES 201	3 MDES 204
MATH 103	3 MATH 104	3	3 MDES 206	3 Science w/ a Lab Elective
	MDES 207	1		
	Wellness	1		

SUGGESTED ADDITIONAL SEQUENCE FOR STUDENTS TRANSFERRING TO A BSMET PROGRAM

Fall Semester III for transfer students		Spring Semester III for transfer students	
CHEM 101 (Inorganic Chemistry)	4	Transfer Electives*	6
Transfer Elective*	3	MATH 121 (Calculus I)	4
MATH 119 (Pre-Calculus, 12 Week Session)	4	PHYS 202 (General Physics II)	4
PHYS 201 (General Physics I)	4	Wellness (PSU Only)	$\frac{1}{2}$
Wellness (PSU Only)	$\frac{1}{2}$	Total Credits	15
Total Credits	16		

**Students are to select courses that are suited for their intended transfer institution.*