MECHANICAL SYSTEMS TECHNOLOGY CERTIFICATE

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Mechanical Systems Technicians help engineers design, develop, test, and manufacture mechanical devices, including tools, engines, and machines. They may make sketches and rough layouts, record and analyze data, make calculations and estimates, and report their findings. Often Mechanical Systems Technicians design equipment and make working models to test. When involved in manufacturing, these technicians frequently determine the strength, quality, quantity, and cost of materials. Technicians who specialize in Mechanical Systems may take the rough sketches produced by an engineer and convert them into detailed drawings. They might also provide illustrations and exploded views of machinery for operating or maintenance manuals.

This certificate provides the skills to become a Mechanical Systems Technician. Practical, hands-on, learning experience is incorporated with principle and theory. Students learn how to make sketches and rough layouts, record data, tabulate calculations, analyze results, and write informative reports. Those interested in the Mechanical Systems Technology certificate should have an aptitude for mathematics, science, and technical work. Students gain experience in blueprint reading, sketching, CAD, manufacturing processes and safety.

Program Learning Outcomes

Upon completion, the student will be able to:

- Successfully troubleshoot and provide correct, effective solutions for maintaining and fixing mechanical systems.
- 2. Apply their growing set of skills to creatively solve technical problems.
- 3. Design, program, and operate equipment safely.
- 4. Analyze the functions of mechanical systems.

Technical Standards

See here for details.

Code	Title	Hours	
Math Elective			
Minimum 6 Credits			
MTH 1370	College Algebra	4	
MTH 1430	Trigonometry	3	
Mechanical Elective			
Minimum of 24 Credits			
ENV 1300	OSHA Regulations and Safety	3	
FMS 2210	CAM/CNC Machining I	3	
FMS 2220	CAM/CNC Machining II	3	
MET 1000	Engineering Graphics with AutoCAD	3	
MET 1010	Blueprint Reading and Sketching	3	
MET 1110	Manufacturing Processes	3	
MET 1020	Material Science	3	
MET 1130	Statics	3	

MET 2210	Strength of Materials	3
MET 2310	Fluid Power	3
MET 2440	Computer Aided Design	3
Total Hours		30