

PRECISION MACHINING TECHNOLOGY

Advanced Certificate



The Advanced Certificate in Precision Machining Technology offers advanced machining theories and applications required to set up and run multi-axis computer numeric control (CNC) equipment. Students are prepared for advanced-level positions in the machining field related to multi-axis CNC equipment operation.

Programming, setup, and operations of 4-axis vertical and horizontal milling centers, 5-axis vertical milling centers, and live-tooling lathes are covered. Students are exposed to the advanced inspection methods that are required to inspect parts made on these machines.

Graduates are prepared to:

- **Program 3-D, 4 and 5-axis, horizontal and vertical, and live-tooling equipment.**
- **Read and interpret blueprints.**
- **Demonstrate and articulate the inspection process.**
- **Manage tool selection based on job variables.**
- **Prepare cutting-tool calculations from manufacturer's book recommendations.**
- **Set up and operate CNC and live-tooling machines.**
- **Describe function of a coordinate measuring machine.**
- **Inspect, adjust, and complete a machine-job package.**

Advanced Certificate Requirements

Semester I		Credit Hours
PMT 276	Advanced Cam Programming	2
PMT 270	Intro to Solid Modeling	3
PMT 281	3-D Surface Milling	3
Semester II		
PMT 282	Multi Axis Cam Programming	2
PMT 285	4 and 5 Axis CNC Milling	3
PMT 279	Multi Axis CNC Lathes	3
Total Credit Hour Requirements		16



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Prerequisites/Requirements: Students must have an A.A.S. or higher degree in machining or equivalent professional credentials as approved by the Academic Dean.

Office of Admissions

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