MACHINING TECHNOLOGY (TEMT)

TEMT 1000 — Manufacturing Fundamentals
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The Manufacturing Fundamentals course introduces students to basic procedures and operations encountered in the machine shop and various manufacturing industries. Topics include essential safety practices, measuring and hand tools, pedestal grinding, and sawing operations.

TEMT 1100 — Mill Concepts
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
Mill Concepts introduces students to essential material-cutting concepts using a milling machine. Topics to be covered include clamping and locating workpieces; selecting cutting tools and holders; milling speeds and feeds; cutting depth, width, and direction; part production; and inspection.

TEMT 1150 — CNC Mill Concepts
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The CNC Mill Concepts course introduces students to computer numerical control (CNC) milling. Topics include safety, CNC terminology, preparing a CNC program, setting up and operating CNC milling machines, part production, and inspection.

TEMT 1200 — Lathe Concepts
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The Lathe Concepts course introduces students to essential material cutting concepts using a precision lathe machine. Topics covered include holding and locating workpieces; selecting cutting tools and holders; turning speeds and feeds; applying cutting depth, width, and direction; part production; and inspection.

TEMT 1250 — CNC Lathe Concepts
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The CNC Lathe Concepts course introduces students to computer numerical controlling (CNC) turning. Topics include safety, computer numerical control (CNC) terminology, preparing a CNC program, setting up and operating CNC turning machines, part production, and inspection.

TEMT 1300 — CNC Mill Programming
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The Computer Numerical Control (CNC) Mill Programming course teaches the fundamentals of CAD/CAM systems. Topics covered in CNC Mill Programming include software operating systems, drawing commands, editing commands, tool-path generation, and posting a program.

TEMT 1350 — CNC Lathe Programming
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
The CNC Lathe Programming course teaches the fundamentals of CAD/CAM systems. The CNC Lathe Programming course covers topics such as software operating systems, drawing commands, editing commands, tool-path generation, and posting a program.

TEMT 1565 — Advanced Print Reading
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
Advanced Print Reading teaches students to interpret information on blueprints used in manufacturing. Topics include mathematical calculations, symbols, terms, datum, material condition modifiers, and the application of tolerance zones.

TEMT 2000 — Process Control
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
Process Control provides practice reading blueprints and technical drawings to create and inspect a part or assembly. This class will teach practical theory and provide hands-on experience in the proper use of common and advanced measuring tools found in the inspection room.

TEMT 2300 — Multi-Axis
Typically Offered: Fall, Spring
Credits: 3
Lecture hours: 1.5
Lab hours: 1.5
Multi-Axis introduces computer numerical control (CNC) multi-axis machine operations. Topics include procedures and practices for safe machine setup and operation, tool-holding and work-holding selection, programming in CAD/CAM software for multi-axis machines, part production, and inspection.