MACHINE TOOL TECHNOLOGY, ASSOCIATE IN APPLIED SCIENCE (MTT)

Effective: Fall 2023

The associate in applied science degree in Machine Tool Technology emphasizes the advanced manufacturing technologies. Students are prepared to work in precision tooling, machining and manufacturing. Graduates could qualify for positions as machine tool operators; machinists; Computerized Numerically Controlled (CNC) machinists and programmers; Electrical Discharge Machine (EDM) operator/programmers; computer-aided drafting/design and computer-aided machining/manufacturing (CAD-CAM) programmers, toolmakers, mold makers and inspectors.

Program Outcomes

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge of the processes and operations of conventional/manual machines; Computer Numerically Controlled (CNC) and Electrical Discharge Machining (EDM) tools and equipment.
- Demonstrate competency in programming and operating Computer Aided Manufacturing (CAM) systems, machines and tool.
- Communicate advanced technological concepts and practices in oral, written and graphical formats.
- Accurately perform conversions, computations and calculations needed for parts production.
- Demonstrate knowledge of project management processes related to be machining operation.
- Demonstrate knowledge in understanding of machine shop safety as well as industry safety principles and practices.

Curriculum

First Semester		Hours
MTT 110	Print Layout and Measurement for Machining	4
MTT 111	Introduction to Manufacturing	3
MTT 112	Lathe Operations I	3
TCC 111	Technical Communications [TC]	3
MAT 128	Algebra [QR]	4
	Hours	**17**
Second Semester		
ENG 100	English Composition I [CR, IL, WC]	3
MTT 122	Lathe Operations II	3
MTT 124	Milling Operations I	3
MTT 129	Solids (CAM) Modeling	3
MAT 151	College Algebra [QR]	4
	Hours	**16**
Third Semester		
ENG 112	English Composition II: Writing About Literature [CR, IL, WC]	3
MTT 210	CNC Machine Tool Operations	3
MTT 214	Milling Operations II	3
MTT 219	CAM Solids I	3
Any Oral Communication (OC) designated course [OC]		3
	Hours	**15**
Fourth Semester		
PHY 107	Technical Physics [SI]	4
MTT 220	CNC Programming	3
MTT 229	CAM Solids II	3
MTT 230	Electrical Discharge Machining	4
Any Diversity and Social Justice (DJ) and Global Understanding (GU) designated Social Science course [DJ, GU]		3
	Hours	**17**
	Total Hours	**65**

Notes

Oral Communication designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#OC_Course_List).

Diversity and Social Justice and Global Understanding designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#Dual_DJ_GU_CourseList).

Career