

First Year

Semester 1

12 Units

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*
MITECH 300 Introduction to Manufacturing and Industrial Technology	3		
MITECH 320 Introduction to CAD/CAM Programming	3		
ENGR 312 Engineering Graphics	3		
MAKR 110 3D Design for Additive Manufacturing	3		

Semester 2

3 Units

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*
MITECH 321 Intermediate CAD/CAM Programming or	3	MITECH 320	
MITECH 302 Production Planning and System Design or	3		
MITECH 311 Introduction to Mechanical Inspection	3		

Semester 3

6 Units

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*
MITECH 313 CMM Operation and Programming or	3	MITECH 311	
MITECH 322 Advanced CAD/CAM Programming	3	MITECH 321	
MITECH 303 Tool and Fixture Design	3	ENGR 312	

Notes:

The Certificate of Achievement CAD/CAM Programming prepares the student with skills specializing in Computer Aided Design/Computer Aided Manufacturing (CAD/CAM). This program prepares the student to model, program, and simulate complex toolpath and generate code required to automate the manufacturing of parts on multi-axis Computer Numerical Controlled (CNC) machines. This program is aligned with the Society of Manufacturing Engineers (SME) core competency subject. This certificate is also aligned with the National Institute of Metalworking Standards (NIMS) certification in CAD/CAM programming.

Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

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