

MFG 258 : CAM MILL I

Transcript title

CAM Mill I

Credits

4

Grading mode

Standard letter grades

Total contact hours

80

Lecture hours

20

Lab hours

60

Prerequisites

MFG 100; MFG 110; and MFG 119.

Course Description

Introduces Computer Aided Machining/Manufacturing for Computer Numerically Controlled (CNC) milling machines. Includes the use of software to generate toolpaths, catalog and manage tool libraries, simulate cutting processes, and revise workholding setups.

Course learning outcomes

1. Use CAM software to catalog and maintain a tool library for CNC mills.
2. Use CAM software to generate and simulate toolpaths for safe and efficient CNC mill operations.
3. Apply collision detection features on CAM software to create a program without any errors.
4. Calculate feed rates and speeds in machining industry standards.

Content outline

1. Familiarization with Computer Aided Machining (CAM) software interface
2. Procedures for importing geometric modeling data from existing CAD drawings
3. Establishing stock machining parameters for CNC mills
4. Creating tooling library within CAM software
5. Toolpath generation and manipulation procedures
6. Toolpath and solid model simulation
7. Post processing procedures for CNC mills
8. Exporting data from software to CNC mills

Required materials

May have required materials, refer to the course syllabus for details.