

**JAMESTOWN COMMUNITY COLLEGE**  
**State University of New York**

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Computer Aided Manufacturing

**Course Abbreviation and Number:** MCT 2410

**Credit Hours:** 3

**Course Type:** Lecture/Lab

**Course Description:** Computer-Aided Manufacturing Students will gain exposure to the principles and procedures used in PC based CAD/CAM part programming and manufacturing. Course is based on the use of local industry standard CAM software. The PC-based CAM system will be used to produce complex machined parts from detailed solid models on advanced CNC machine tools.

Prerequisites: MCT 1380, MCT 2280 and MCT 2300.

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Demonstrate knowledge of system requirements for installing and operating CAM software.
  2. Explain general process of generating word address programs via CAM software.
  3. Create and Edit 2D geometry via the Operations Manager
  4. Generate hole operations and profiling and pocketing in 2D space.
  5. Use a library to save or import machining operations.
  6. Perform independent projects of moderate difficulty.
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**Topics Covered:**

- Introduction to CAM software package
  - Creating 2D Geometry.
  - Editing 2D Geometry
  - Additional Tools for CAD
  - Generating Hole Operations in 2D Space
  - Profiling and Pocketing in 2D Space
  - Editing Machining Operations Via the Operations Manager
  - Using Transform to Translate, Rotate or Mirror Existing Toolpaths
  - Using a Library to Save or Import Machining Operations
  - Shop Project
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**Information for Students**

- Expectations of Students
  - [Civility Statement](#)
  - [Student Responsibility Statement](#)
  - [Academic Integrity Statement](#)
- [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.
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**Effective Date:** Fall 2021