

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

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Manufacturing Drawings & GD&T

**Course Abbreviation and Number:** MCT 1340

**Credit Hours:** 4

**Course Type:** Lecture

**Course Description:** Students will gain further exposure to actual manufacturing drawings and other information provided. The first part of the course will cover the ability to read, interpret, and construct manufacturing drawings. The second part will introduce the students to geometric tolerance and dimensioning.

**Prerequisite:** MCT 1240; **Prerequisite / Corequisite:** MCT1380; **Eligibility:** MAT1590.

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Explain the uses of lines, including hidden lines and phantom lines.
  2. Explain the various drawing views and what they represent.
  3. Apply dimensions and tolerances, including angular and metric.
  4. Explain machining symbols.
  5. Explain welding symbols.
  6. Explain assembly drawings.
  7. Explain the meaning of geometric dimensions and tolerances.
  8. Explain how geometric dimensions and tolerances are established.
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**Topics Covered:**

- Review of Drawings & Blueprints
    - Lines
    - Orthographic projection
    - Auxiliary Views
    - Detail and Assembly drawings
    - Dimensions and tolerances
    - Sectional views
  - Manufacturing Drawing Topics
    - Welding Prints
    - Plastic Prints
    - Sheet Metal Prints
    - Grinding
    - Thread Representation and Specification
    - Specification and Callouts for Machining Processes
  - Gears, Splines, and Serrations
  - Reading Numerical Control Documents
  - Assembly Drawings & Sections in Assembly Drawings
  - Instrumentation and Control Drawings
  - III. Geometric Dimensioning and Tolerancing
    - Identify datum feature symbols – ANSI standards
    - Read and interpret various tolerances
      - a. Location
      - b. Form
      - c. Profile
      - d. Runout
      - e. Feature Control Frame
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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 2023