# Computer-Aided Machining (CAM) II Course No. 39205 Credit: 0.5

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| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes:Manufacturing (48.0000) - Production Strand

Course Description: An **application level** course that builds on skills learned in Computer-Aided Machining (CAM) I. This course introduces advanced methods used in creating computer-generated models and machining practices. (Prerequisite: Computer-Aided Machining (CAM) I.)

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Dimensional Drawings

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Demonstrate use of CAD software for part modeling. |  |
| 1.2 | Create 2D and 3D models in CAM. |  |
| 1.3 | Generate Wireframe and Solid models using CAD. |  |

## Benchmark 2: Establish CAM Set-up Processes

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Select proper tooling matching specified material. |  |
| 2.2 | Identify proper feed rates and machining speeds. |  |
| 2.3 | Generate Machine set-up sheet graphics. |  |
| 2.4 | Finalize set-up documents. |  |

## Benchmark 3: Generate Milling & Turning Tool Paths

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Demonstrate rough pocket and contour tool-paths. |  |
| 3.2 | Demonstrate rough plunge and finish contour and shallow tool-paths. |  |
| 3.3 | Generate steep and shallow tool-paths using CAM. |  |
| 3.4 | Generate (Turning) tool-paths: Roughing, Grooving, and Finishing. |  |

## Benchmark 4: Inspection and verification of Toolpaths using CAM Software

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Inspect tool-paths for collision. |  |
| 4.2 | Verify tool-paths for accuracy. |  |
| 4.3 | Correct and re-generate tool-paths as needed. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

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