# Production Methods II Course No. 39052 Credit: 1.0

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

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

Course Description: An **application level** course which builds on skills learned in Production Methods I and is designed to instruct students in advanced knowledge and skills required for fabricating products using a variety of materials (wood, plastic, metal, composites). (Prerequisite: Production Methods 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: Safety and Tool Operation

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Safely use and maintain basic and advanced hand power tools. |  |
| 1.2 | Apply concepts and skills required to safely use specialized equipment. |  |
| 1.3 | Apply concepts and proper safety procedures for manufacturing processes and material handling. |  |

## Benchmark 2: Production Methods and Processes

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Select proper materials used in developing production processes. |  |
| 2.2 | Identify properties used in production methods and processes. |  |
| 2.3 | Create or utilize technical drawings, blueprints, work orders, and product specifications in product development.  |  |
| 2.4 | Apply math skills to manage distance, spacing, angle measurements, and placement for project development. |  |
| 2.5 | Design a product using applicable production methods and processes. |  |

## Benchmark 3: Concepts in Production, Methods, and Technology

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Research technologies utilizing production and design. |  |
| 3.2 | Analyze and solve problems using skills related to methods in fabrication of a product. |  |
| 3.3 | Incorporate LEAN manufacturing concepts pertaining to product fabrication and design (e.g. visual management, value stream mapping, 5S, Kanban systems, lean metrics, shop layout). |  |

## Benchmark 4: Plans and Projects

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Incorporate traditional methods of fabrication and design with advanced technologies to create plans, and construct products. |  |
| 4.2 | Develop project bill of material, cost estimates and plan of procedure for products. |  |
| 4.3 | Select and perform best practices for joining, assembling, and finishing products. |  |

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

Instructor Signature:

For more information, contact:

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