# Tooling I Course No. 40600 Credit: 1.0

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

Pathways and CIP Codes:Aviation Production (15.000) - Production Strand

Course Description: **Application level** course where students learn to utilize tools and processes in aviation tool assembly.

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: Click or tap here to enter text.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Apply all shop safety standards – breaking sharp edges, eye/hearing protection, unplug air hose when changing drill bits/rivet sets |  |
| 1.2 | Identify and define Foreign Object Damage (FOD) and the impact on finished product |  |
| 1.3 | Utilize industry specific tools and materials in aerospace manufacturing |  |
| 1.4 | Understand the use of blueprints and picture sheets used in the aerospace manufacturing. |  |
| 1.5 | Utilize precision measuring instruments |  |
| 1.6 | Identify and explain the different types of tooling used in aerospace and/or advanced manufacturing |  |
| 1.7 | Demonstrate how to safely use hand tools used in aerospace and/or advanced manufacturing tooling |  |
| 1.8 | Demonstrate how to safely use power tools used in aerospace and/or advanced manufacturing tooling |  |
| 1.9 | Describe the need for creating tools in the aerospace and/or advanced manufacturing industry |  |
| 1.10 | Understand the role of the toolmaker |  |
| 1.11 | Read and interpret the requirements on an engineering drawing |  |
| 1.12 | Practice General Welding Safety |  |
| 1.13 | Cut metal using Power Equipment |  |
| 1.14 | Demonstrate basic knowledge of GMAW and GTAW welding techniques |  |
| 1.15 | Perform skills associated with hand drilling operations |  |
| 1.16 | Demonstrate skills associated with hand drill operations |  |
| 1.17 | Apply skills associated with precision drilling operations |  |
| 1.18 | Demonstrate skills associated with drill press operations |  |
| 1.19 | Demonstrate the ability to precision to holes to specified tolerances |  |
| 1.20 | Define the basic principles of Geometric Dimensioning & Tolerancing (GD&T) |  |
| 1.21 | Identify GD&T symbols |  |
| 1.22 | Interpret form and orientation tolerances |  |
| 1.23 | Interpret profile, runout and location tolerances |  |

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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