# Special Projects & Research in Aviation Course No. 41520 Credit: 1.0

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

Pathways and CIP Codes:Aviation Production (15.0000) - Design Strand

Course Description: An advanced, **application level** production design course that incorporates advanced techniques of aviation design with additional software packages specific to the production and application of aviation parts and systems. (Must be preceded by all Aviation Design Strand application level courses, except for Workplace Experience.)

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 | Define scope of work (or area to be researched) and appropriately document the process |  |
| 1.2 | Discuss the manufacturing methods and materials in current production process drawings |  |
| 1.3 | Identify proper process for design of new parts |  |
| 1.4 | Compare and contrast the impact of the parts on various aviation systems |  |
| 1.5 | Describe the material options and their properties |  |
| 1.6 | Utilize advanced techniques to design and develop aircraft parts |  |
| 1.7 | Apply 2D and 3D design to assemble aviation parts |  |
| 1.8 | Demonstrate in-depth knowledge on the selected topic |  |
| 1.9 | Manipulate the parts to show the functions |  |
| 1.10 | Apply basic principles of form and function to meet project parameters and specifications |  |
| 1.11 | Demonstrate knowledge of the key functions and subsystems of the product |  |
| 1.12 | Evaluate the final project |  |

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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