# Aviation Systems Course No. 40420 Credit: 1.0

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

Pathways and CIP Codes:

Course Description:

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 | Describe the history and future of aviation |  |
| 1.2 | Identify and discuss primary assembles/structures and their functions |  |
| 1.3 | Describe the principles of flight |  |
| 1.4 | Interpret how the mechanical systems and the design of an airplane impact flight characteristics |  |
| 1.5 | Identify and discuss airplane based on their configuration |  |
| 1.6 | Describe and discuss the types of materials used on an airplane |  |
| 1.7 | Identify the methods of airplane construction |  |
| 1.8 | Calculate the manufacturing cost concepts as they relate to aviation |  |
| 1.9 | Describe the manufacturing systems management and control |  |
| 1.10 | Identify and discuss manufacturing processes and technologies control |  |
| 1.11 | Identify producibility concepts in aviation manufacturing |  |
| 1.12 | Describe and discuss electrical systems in aircraft and their functions |  |
| 1.13 | Explain and interpret avionics systems in aircraft and their functions |  |
| 1.14 | Describe and discuss flight control system in aircraft and their functions |  |
| 1.15 | Describe environmental control systems in aircraft and their functions |  |
| 1.16 | Analyze door systems in aircraft and their functions |  |
| 1.17 | Compare hydraulic and pneumatic systems in aircraft and their functions |  |
| 1.18 | Identify mechanical components in aircraft and their functions |  |
| 1.19 | Explain landing gear systems in aircraft and their functions |  |
| 1.20 | Describe and discuss windows systems in aircraft and their functions |  |
| 1.21 | Describe the various fuel systems in aircraft and their functions |  |
| 1.22 | Illustrate propulsion systems in aircraft and their functions |  |
| 1.23 | Compare and contrast Anti - Ice and De-ice systems in aircraft and their functions |  |

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

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

(785) 296-4908

pathwayshelpdesk@ksde.org



900 S.W. Jackson Street, Suite 102

Topeka, Kansas 66612-1212

[https://www.ksde.org](https://www.ksde.org/)

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to any group officially affiliated with the Boy Scouts of America and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3201.