

Aviation Technology- Maintenance
Standard Course Outline

AVTA 1121 - AIRCRAFT FUEL SYSTEMS

Catalog Description: Airframe fuel systems including tanks, lines, pumps, valves, selectors, and quantity indicating systems. Clock hours: 18 lecture, 18 shop

Prerequisite: AVTG 1001

Credit hours/ Contact hours/ Load hours: 1/36/meets for six 6-hour days

Target Audience & Transferability:

This course is designed for students seeking a Technical Certificate in Airframe or, when combined with General and Powerplant, an AAS in Aviation Maintenance Technology, or an AS in Aviation Maintenance Management. Individual AVT courses or Certificates may be transferable to other FAA Certified Aviation Maintenance Technician schools under Federal Regulations.

Common Objectives/ Student Outcomes:

REFERENCES: AC 65-9A; AC 65-15A; AMT-A; JSAT; AMR.
FAA Standard: *FAA-S-8081-27* 3-6, Change 2 (9/24/03)

Upon course completion, the student:

1. Exhibits knowledge of at least two of the following—
 - a. fuel system strainer servicing.
 - b. construction characteristics of one or more types of fuel tanks.
 - c. fuel tank maintenance procedures.
 - d. fuel line routing/installation requirements.
 - e. hazards associated with fuel system maintenance.
 - f. types, characteristics, and/or operation of fuel systems and/or components thereof.
 - g. characteristics, and/or operation of fuel jettison systems and/or components thereof.
2. *Demonstrates the ability to:
 - a. Service a fuel system strainer. (Level 3)*Core competency element.
3. Demonstrates the ability to perform at least one of the following—
 - a. install a fuel quantity transmitter and/or accomplish an operational check. (Level 3)
 - b. install a fuel valve and/or accomplish an operational check. (Level 3)
 - c. install a fuel pump and/or accomplish an operational check. (Level 3)
 - d. troubleshoot a fuel system. (Level 3)
 - e. determine the airworthiness of a specified size fuel system leak/seep. (Level 2)
 - f. inspect a fuel system and/or fuel system component(s). (Level 3)
 - g. check the operation of one or more fuel system components. (Level 3)
 - h. inspect a metal fuel tank. (Level 3)
 - i. inspect a bladder fuel tank. (Level 3)

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- j. locate fuel system operating instructions. (Level 1)
- k. locate fuel system inspection procedures. (Level 1)

Required Text(s):

Airframe Structures Textbook (ASA)	ISBN # 1-56027-339-9
Airframe Systems Textbook (ASA)	ISBN # 1-56027-340-2
Airframe Test Study Guide (ASA)	ISBN # 1-56027-571-5
FAR Handbook for AMT (ASA)	ISBN # 1-56027-563-4
AC43.13-1B Acceptable Methods, Practices, & Techniques (ASA)	ISBN # 1-56027-488-3

Optional Text(s):

Technician Airframe Textbook (Jeppesen)	ISBN # 0-89100-395-9
Technician Airframe Workbook (Jeppesen)	ISBN # 0-89100-402-5
AC65-15A Aircraft Mechanics Handbook Airframe (FAA)	ISBN # 1-56027-023-3

Supporting Reference(s)

O&P Study Guide (ASA)	ISBN # 1-56027-406-9
Maintenance Handbook (ASA)	ISBN # 1-56027-518-9
Dictionary of Aeronautical Terms (ASA)	ISBN # 1-56027-587-2

The workbooks and test study guides may be used to aid the instructor and students to reinforce the textbook information. Other Textbooks may be used depending upon availability.

Required Methods of Instruction:

Classes are taught in a full time day or night format, requiring maximum attendance. Attendance is taken every hour. Missed time must be made up outside of regular scheduled class time before moving to the next subject.

Required Forms of Assessment:

Periodic exams will be performed by FAA approved instructors as required to insure progress. Students must pass this course with a 70% or better to qualify for an FAA approved Certificate of Completion in the Airframe Section.