

Aviation Technology- Maintenance
Standard Course Outline

AVTG 1051 - FLUID LINES AND FITTINGS

Catalog Description: Students fabricate and install rigid and flexible aircraft fluid lines and install fittings. Clock hours: 16 lecture, 8 shop

Prerequisite: AVTG 1001

Credit hours/ Contact hours/ Load hours: 1/24/6 hours per day for 4 days

Target Audience & Transferability:

This course is designed for students seeking a Certificate of Proficiency, Technical Certificates in Airframe 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.

Student Outcomes/ Course Topics:

REFERENCES: AMT-G; ABS.

FAA Standard: *FAA-S-8081-26* 1-4, Change 2 (9/24/03)

By the end of the course, students will:

1. Exhibit knowledge of at least two of the following—
 - a. tubing materials.
 - b. tubing materials application.
 - c. tubing sizes.
 - d. flexible hose material.
 - e. flexible hose materials application.
 - f. flexible hose sizes.
 - g. flexible hose identification.
 - h. AN, MS, and/or AC plumbing fittings.
 - i. rigid line fabrication techniques/practices.
 - j. rigid line installation techniques/practices.
 - k. flexible hose fabrication techniques/practices.
 - l. flexible hose installation techniques/practices.

2. *Demonstrate the ability to perform at least one of the following—
 - a. rigid line fabrication to include tube fittings, bending, and tube flaring. (Level 3)
 - b. flexible line fabrication using replaceable fittings on at least one end. (Level 3)*Core competency element.

3. Demonstrate the ability to perform at least one of the following—
 - a. inspect for and identify defects in rigid and/or flexible lines. (Level 3)
 - b. install and remove a rigid and/or flexible line. (Level 3)
 - c. identify correct and/or incorrect rigid line installations. (Level 2)
 - d. identify correct and/or incorrect flexible line installations. (Level 2)
 - e. form a bead on tubing. (Level 3)
 - f. select components and assemble a flareless fitting tube connection. (Level 3)
 - g. repair a damaged rigid line. (Level 3)
 - h. identify various sizes and types of aircraft fittings. (Level 2)

Aviation Technology- Maintenance
Standard Course Outline

- i. secure a rigid line with clamps. (Level 3)
- a. identify fluid and/or air lines that may be installed on an aircraft. (Level 2)

Required Text(s):

General Textbook (ASA)	ISBN # 1-56027-550-3
General Test Study Guide (ASA)	ISBN # 1-56027-570-7
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 General Textbook (Jeppesen)	ISBN # 0-88487-203-3
Technician General Workbook (Jeppesen)	ISBN # 0-88487-212-2
AC65-9A Aircraft Mechanics Handbook General (FAA)	ISBN # 1-56027-064-0

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 issued depending upon availability.

Required Methods of Instruction:

Classes are taught off-campus 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 General Section.