

Engineering and Technology Education Department
Semester Course Syllabus
Fall 2008

AV 1170 - Aircraft Structures
3 credits

I. Contact Information

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II. Catalog Description

Accepted methods and repair for metal structures. Organic finishes and application techniques with laboratory applications and practical experience.

III. Course Objectives

In this course you will obtain the technical knowledge to perform minor and major repairs and develop the ability to return an aircraft, which has undergone major repair, to service. Technical knowledge will be gained in the use of tools, machines, and special operations for repair and maintenance of aircraft. Upon completion, each student will be able to achieve the level of proficiency indicated by the number in parenthesis.

Course Outline

Teaching Level

A. Wood Structures

- (2) 1. Service and Repair Wood Structures
- (2) 2. Identify Wood Defects
- (2) 3. Inspect Wood Structures
- (2) 4. Inspect Wood Structures

B. Aircraft Landing Gear Systems

- (2) 1. Select and Apply Fabric and Fiberglass Covering Materials
- (3) 2. Inspect, Test, and Repair Fabric and Fiberglass

C. Aircraft Finishes

- (1) 1. Apply Trim, Letters, and Touch-up Paint
- (2) 2. Identify and Select Aircraft Finishing Materials
- (2) 3. Apply finishing materials
- (2) 4. Inspect finishes and identify defects

D. Sheet Metal Structures

- (3) 1. Hand Form, Lay Out, and Bend Sheet Metal
- (3) 2. Inspect and Repair Sheet Metal Structure
- (3) 3. Install Conventional Rivets
- (2) 4. Select, install, and remove special rivets and fasteners for metallic, Bonded, and composite structures

E. Transparent Plastic Materials

- (1) 1. Types of Transparent Plastics

- (1) 2. Storage and Handling
- (2) 3. Forming Procedures
- (3) 4. Repairs
- (1) 5. Protection
- (1) 6. Windshield Installation

F. Welded Structures

- (1) 1. Inspect and recognize airworthy weldment

IV. Textbooks

Aviation Technician Airframe Section Textbook and Workbook,
 Jeppesen FAR Handbook for Aviation Maintenance Technicians
 Aircraft Inspection and Repair - Alterations AC 43.13-1B and 2A
 Standard Aircraft Workers Manual - (Reference)

V. Course Fees

There is a \$35.00 course fee paid at registration which is used for materials and supplies.

VI. Grades

Determined by the total points of examinations, quizzes, and lab assignments. At least two major exams will be given.

90% - 100%	=	A
80% - 89%	=	B
70% - 79%	=	C
60% - 69%	=	D
Below 59%	=	F

VII. Examination Schedule

Projects	300 pts
Quizzes	200 pts
Two Exams	200 pts
Final Examination	<u>300 pts</u>

Total: 1,000 pts

VIII. Attendance

Each A & P student is expected to be in attendance for the full lecture. Students coming late or leaving early will be graded accordingly with all tardiness and absences recorded. Federal Aviation Certification requires full attendance. If an absence becomes necessary due to illness, etc., make-up arrangements should be made with the instructor immediately. One hundred eighty-seven clock hours are required with this course.

IX. Accommodations

If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats--large print, audio, diskette, or Braille.