FINISHES AND COVERINGS
Course Syllabus

Course Number: TRAM-2004
OHLAP Credit: No
OCAS Code: None
Course Length: 35 Hours
Career Cluster: Transportation, Distribution & Logistics
Career Pathway: Aviation Maintenance Technology
Career Major(s): Airframe Mechanic

Pre-requisite(s):

Course Description:
This course covers the inspection and application of aircraft surface fabrics. Aircraft paints and painting equipment, including external markings will be discussed and installed.

Textbooks:
Dale Crane, Dictionary of Aviation Terms, Aviation Supplies and Academics, 1997
FAA, FAR Handbook for Aviation Maintenance Technicians, Jeppesen, Sanders, Inc.. 2001
FAA, Standards for Aviation Maintenance Handbook, Jeppesen, Sanders, Inc.. 1985
DOT, Aircraft Inspection and Repair, Jeppesen, Sanders, Inc., 1998

Course Objectives:

A. Lesson: INTRODUCTION TO FABRIC COVERING
1. Describe safety practices and procedures related to aircraft finishing and fabric covering.
2. Discuss course completion requirements.
3. Define terms related to fabric covering.
4. List and describe FAA rules and regulations relating to aircraft fabric covering.

B. Lesson: NATURAL FABRICS
1. List and discuss types of natural fabrics. (AF-B1)
2. Identify characteristics of natural fabrics.
3. Discuss grades of natural fabrics.

C. Lesson: SYNTHETIC FABRICS
1. List types of manmade fabrics. (AF-B1)
2. Give advantages of manmade over natural fibers. (Level 1) (App. C,I,B,4) (AF-B13)
3. Discuss usage and applications of fiberglass cloth. (Level 1) (App. C,I,B,4)

D. Lesson: FABRIC AIRWORTHINESS TESTING
2. Observe a fabric test on sample panel. (Level 1) (App. C,I,B,5) (AF-B6)

E. Lesson: PREPARATION, PROCEDURES AND LIMITATIONS OF FABRIC COVERING
1. Explain inspection techniques before covering.
2. Observe a fabric covering process using the blanket or envelope method. (Level 1) (App C,I,B,4) (AF-B4,B10,B11,B16,B17)
3. Identify types of seams and their placement. (Level 1)
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(App. C, I,B,4) (AF-B3,B8,B8,B15)

F. Lesson: DOPE AND FINISH APPLICATIONS
1. List and define terms used in finish or dope applications.
2. Discuss anti tear strips.
3. Describe usages of reinforcing tape.
4. Discuss usages of rib lacing cord.
5. List applications for wire clips and screws.

G. Lesson: DOPED REPAIRS
1. Discuss procedures for a doped on patch repair. (Level 1) (App. C,I,B,5) (AF-B2,B12,B18,C7,C8)
2. Discuss procedures for an L-shaped repair. (Level 1) (App. C,I,B,5)

H. Lesson: AIRCRAFT FINISHES
1. Discuss various methods used to rejuvenate old finishes.
2. List primers and finishes used on aircraft.(AF-C5)
3. Describe types of top coats.
4. Discuss the application of non-fabric finishes and paints. (Level 1) (App. C,I,C,6)
   (AF-C3,C9,C10,C16,C17,C18)
5. Describe spray equipment applications.(AF-C11,C13)
6. Discuss spray gun design and operation.
7. Discuss paint stripping.
8. § Finish and inspect a surface. (Level 2) (App C,I,C,7-9) (AF-B5,C12,C14,C15)

I. Lesson: LEGAL REGISTRATION
1. Discuss legal aspects of registration lettering.
2. Describe the design and installation of registration letters and numbers. (Level 1)
   (App. C,I,C,6) (AF-C1,C2,C4,C6)

Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures:
1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, F=0-69%.

Description of Classroom, Laboratories, and Equipment:
Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.
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**Available Certifications/ College Credit**

The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

**College Credit Eligibility:**

The student must maintain a grade point average of 2.0 or better.