



CREDIT COURSE OUTLINE

I. COVER PAGE

(1) AERO 209	(2) Aircraft Fabric Coverings	(3) 3
Number	Title	Units

(4) Lecture / Lab Hours:	(8) Classification:	
Course Hours		
Weekly Lec hours: 2.00	Degree applicable:	
Weekly Lab hours: 3.00	Non-degree applicable:	
Total Contact hours: 90.00	Basic skills:	
Lec will generate __ hour(s) outside work.	(9)RC Fulfills AS/AA degree requirement: (area)	
Lab will generate __ hour(s) outside work.	General education category:	
(5) Grading Basis: Grading Scale Only X	Major:	
Pass/No Pass option	Certificate of:	
Pass/No Pass only	Certificate in:	
(6) Advisories:	(10)CSU Baccalaureate:	
(7) Pre-requisites (requires C grade or better):	(11)Repeatable: (A course may be repeated three times)	0
Corequisites:	(12)C-ID:	
	Proposed Start Date:	Summer 2012

(12) Catalog Description:
 Aircraft Fabric Coverings is a hands-on course in the use of the "Poly Fiber System" to apply dope and fabric coverings for light truss construction aircraft. Other traditional and current covering materials will also be explored.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

- I. identify different types of aircraft coverings.
- II. perform repairs on truss type aircraft coverings.
- III. complete the replacement of the envelope on a truss type aircraft control surface.
- IV. perform airworthiness tests on fabric coverings per annual inspection.
- V. apply finishes to fabric covered aircraft.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

- I. develop skills and techniques to identify the types of aircraft coverings.
- II. learn repair procedures for fabric coatings per manufacture's recommendation and FAA AC 43.13 1B.
- III. develop skill to recover complete component surfaces with "Poly Form" prescribed techniques.
- IV. practice test procedures on existing fabric coverings.
- V. learn techniques to apply finishes to fabric coverings using "Poly Form System"

IV. COURSE OUTLINE:

Lecture Content:

- I. Testing and Airworthy requirements
 - a. Fabric identification
 - b. Coating identification
 - c. Strength criteria
 - d. Fabric testing
 - e. Rejuvenation of dope film
- II. Classifications of fabric coverings
 - a. Synthetic
 - b. Natural

- i. Cotton
- ii. Linen
- III. Repair of fabric coverings
 - a. Determining repair
 - b. Sewn-patch repair
 - c. Dope on repair
- IV. Complete replacement of fabric envelopes
 - a. Reinforcement tape
 - b. Lacing methods
 - c. Knots
 - d. Finishing tape
 - e. Inspection rings and grommets
- V. Finishes used on fabric covering
 - a. Application on fabric
 - b. Application on wood

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

I. Sample Text Title:

1. Recommended - Jon Goldenbaum *How to cover an Aircraft using the Polyfiber System*, -, 2001,
2. Recommended - Federal Aviation Administration *AC 43.13-1b*, -, 2001,

II. Other Readings

- Global or international materials or concepts are appropriately included in this course
- Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B, or C.

A. Writing			
Check either 1 or 2 below			
X	1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.		
	2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.		
	a) essay exam(s)		d) written homework
	b) term or other paper(s)		e) reading reports
	c) laboratory report(s)		f) other (specify)

Required assignments may include but are not limited to the following:

B. Problem Solving			
Computational or non-computational problem-solving demonstrations, including:			
	a) exam(s)		d) laboratory reports
	b) quizzes		e) field work
	c) homework problems	X	f) other (specify): Mixing of adhesives and finishing, determining proper repairs

Required assignments may include but are not limited to the following:

1. Determine proper ratios of adhesive components and finish components by weight or volume for a specific quantity
2. Calculate the layout and size of a repair to a fabric control surface

C. Skill demonstrations, including:			
	a) class performance(s)		c) performance exams(s)
	b) field work	X	d) other (specify)

Required assignments may include but are not limited to the following:

1. Perform repairs, covering replacements and finish applications to airworthiness standards

D. Objective examinations including:			
X	a) multiple choice		d) completion
X	b) true/false		e) other (specify):
X	c) matching items		

COURSE GRADE DETERMINATION:

Description/explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

Does Course Require Social Facilities? No

Attached Files:

<p><u>BASIC SKILLS ADVISORIES PAGE</u> The skills listed are those needed for eligibility for English 125, 126, and Math 201. These skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least <u>three</u> major basic skills needed at the beginning of the target course and check off the corresponding basic skills listed at the left.</p> <p><u>Check the appropriate spaces.</u></p> <p>_____ Eligibility for Math 201 is advisory for the target course. _____ Eligibility for English 126 is advisory for the target course. _____ Eligibility for English 125 is advisory for the target course.</p> <p><i><u>If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.</u></i></p>

REQUISITES
No requisites

JUSTIFICATION OF LIMITATION ON ENROLLMENT

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. Be mindful of the disproportionate impact the limitation will have on specific groups of students. It is important to determine if the limitation will disproportionately keep under-represented students from enrolling in the course or block of courses.

Describe the reasons for limiting the enrollment.

Course Designator: AERO 209
Course Title(s): Aircraft Fabric Coverings
Rationale for Limiting Enrollment: 0