COLUMBUS STATE
COMMUNITY COLLEGE

Columbus State Community College
Engineering and Transportation Technologies
Aviation Maintenance Technology

COURSE: AMT 2109 Airframe Inspection

CREDITS: 6 CLASS HOURS PER WEEK: 27 PREREQUISITES: AMT 2101, 2102, 2103, 2104, 2105

DESCRIPTION OF COURSE

Airframe Capstone course. In this course, aviation maintenance students will hone their critical inspection skills by studying the application of Federal Aviation Regulations to aircraft maintenance and the aircraft technician. With the help of aircraft maintenance forms, records, publications, and other pertinent technical data, an examination of the disposition of the required maintenance records, the use of inspection equipment and aids, and the proper procedures for returning the aircraft to service, and inspection of a complete airframe and all related systems will be accomplished.

COURSE GOALS

- Aircraft Design and Construction
- Airplane Assembly and Rigging
- Fundamentals of Rotary-Wing Aircraft
- Required Airworthiness Inspections
- Inspection Guidelines and Procedures
- Aircraft Maintenance Records
- Critical Thinking
- Quantitative Skills
- Technological Competence

STUDENT LEARNING OUTCOMES

Student will demonstrate an undertstanding of fixed & rotarty wing design and the principles to properly rig them.
Student will demonstrate the correct use of publications, records and methods required for the inspection of Aircraft.
Student will demonstrate the ability to comprehend and properly use information to disseminate aircraft records.

INSTITUTIONAL LEARNING GOALS

Columbus State Community College's Institutional Learning Goals are an integral part of the curriculum and central to the mission of the college. The faculty at Columbus State has identified the following institutional learning goals:

- Critical Thinking
- Quantitative Skills
- Technological Competence

COURSE MATERIALS REQUIRED

All tools on the Columbus State Community College Aviation Maintenance Technology Minimum Required Tool List are required.

TEXTBOOKS—REQUIRED AND OPTIONAL READINGS

Airframe 8083-31 Vol 1
Airframe 8083-31 Vol 2
Airframe Workbook
A&P Airframe Test Guide

AVIATION MAINTENANCE TECHNOLOGY SYLLABUS STATEMENTS

Aviation Maintenance Technology required College Syllabus Statements on **Assessment**, **Participation and Safety**, and **Attendance** can be found at http://www.cscc.edu/academics/departments/aviation-maintenance/requirements.shtml or on the College website –Search 'Aviation'; click on 'Aviation Maintenance'; click on 'Requirements' tab.

SPECIAL COURSE REQUIREMENTS

Part 147 Para 147.21 (d) (3) and 147.31 (b) state that tests must be given in all subject areas and that the tests given must all be passed.

As students progress through the program, they will be given subject area tests relative to the course subject areas. Students must demonstrate a 70% minimum passing score on every subject test. If a subject area test is failed, the student will be given additional opportunities to pass the subject test. All subject tests must be passed before a certificate of program completion can be issued.

FAA Subject Are Test for this course:

II-F Assembly and Rigging
II-G Airframe Inspection

To be awarded a Certificate of Program Completion, in addition to subject area testing, the student must also:

Successfully pass each course required for the certificate. Requirements for passing each course include:

A 70% average evaluation for graded course elements. Instructors determine the weights of course grading.

Successful completion of all required laboratory requirements of the course.

Attendance in compliance with the attendance policy.

Students can pass a course with a grade of "D", however students must have a minimum overall Grade Point Average of 2.0 (out a possible 4.0) to be awarded a certificate of completion. Courses can be repeated to improve grades.

Grade Area	Weight	Percentage Earned		Lab Project	Pass	Fail

Unit Tests	60%			Design & Construction		
Quiz	0%			Airplane Assembly & Rigging		
Final	20%			Fundamentals of Rotary-Wing		
Participation & Safety	10%			Required Inspections		
Use of own tools	10%			Guidelines and Procedures		
Total	100%			Maintenance Records		
Course Letter Grade						

Student Resources, Rights, and Responsibilities: Columbus State Community College required College Syllabus Statements on College Policies and Student Support Services can be found at https://www.cscc.edu/academics/syllabus.shtml.

UNITS OF INSTRUCTION – AMT 2109

ASSIGNMENT	LEARNING OBJECTIVES/GOALS	ASSESSMENT METHODS	ASSIGNMENTS		
Assignment 1	Aircraft Design and Construction	Test, Worksheets	Read:	Aviation Maintenance Technicians Airframe Vol. 1 Chapt. 1-1 to 34	
			Labs:	Design and Construction worksheet	
			Test:	Design and Construction	
Assignment 2	Airplane Assembly and Rigging	Test, Worksheets	Read:	Aviation Maintenance Technicians Airframe Chapt. 2-1-16, 2-41-58	
			Labs:	Airplane Assembly and Rigging worksheet	
			Test:	Assembly & Rigging	
Assignment 3	Fundamentals of Rotary-Wing Aircraft	Test, Worksheets	Read:	Aviation Maintenance Technicians Airframe Chapt. 1-40-46, 2-16-40	
			Labs:	Rotary-Wing Theory/Maintenance Lab projects	
			Test:	Rotary–Wing fundamentals	
Assignment 4	Required Airworthiness Inspections	Test, Worksheets	Read:	Aviation Maintenance Technicians Airframe Chapt. 2-60-69	
			Labs:	Required Inspection Lab projects	
			Test:	Required Airworthiness Inspections	
Assignment 5	Inspection Guidelines and Procedures	Test, Worksheets	Read:	Aviation Maintenance Technicians General Chapt. 8	
			Labs:	Inspection Checklist Forms	
			Test:	None	

ASSIGNMENT	LEARNING OBJECTIVES/GOALS	ASSESSMENT METHODS	ASSIGNMENTS		
Assignment 6	Aircraft Maintenance Records	Test, Worksheets	Read:	Aviation Maintenance Technicians Airframe Chapt. 12	
			Labs:	Aircraft Maintenance Records	
			Test:	Required Maintenance Records	