COLUMBUS STATE COMMUNITY COLLEGE

Columbus State Community College
Engineering and Transportation Technologies
Aviation Maintenance Technology

COURSE: AMT 1101 Intro to Aviation

CREDITS: 2 CLASS HOURS PER WEEK: 9 PREREQUISITES: ENGL 1100; MATH 1050/1099

DESCRIPTION OF COURSE

In this course, students receive an introduction to aerodynamics and the physics of flight. Focus will be on principles of simple machines, sound, fluid dynamics, heat, and pressure as they pertain to fixed wing aircraft, rotary wing aircraft, aircraft powerplants, and propellers. Students will also learn the principles of primary and secondary flight controls and aircraft nomenclature.

COURSE GOALS

- Math applications for the aircraft technician
- Physics for the aircraft technician
- Aerodynamics for the aircraft technician
- Quantitative Literacy

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
- Scientific Literacy
- Technological Competence

STUDENT LEARNING OUTCOMES

The student will demonstrate the ability to correctly solve mathmatical problems of the type typically found in the aviation maintenance industry.
The student will demonstrate knowledge and understanding of the principles of physics as applied to the aviation maintenance industry.
The student will demonstrate an understanding of the theory of flight

COURSE MATERIALS REQUIRED

TI 30 Calculator or equivalent

TEXTBOOKS—REQUIRED AND OPTIONAL READINGS

FAA General Handbook 8083-30
General Workbook
General Test Guide
AC43.13-1B/2B
FAR's for AMT's
Aviation Mechanic's Handbook

Aviation Dictionary (*Optional*)

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:

I-H: Mathematics
I-J: Basic Physics

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 Test	20%			Math Labs		
Mid Term	20%			Physics Labs		
Quiz	15%			Aerodynamics		
Final	20%					

Participation	5%					
Other – Labs	20%					
Total		100%				
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 1101

ASSIGNMENT	LEARNING OBJECTIVES/GOALS	ASSESSMENT METHODS	ASSIGNMENTS	
Assignment 1	Aerodynamics for the aircraft technician	Test, Quizzes, Worksheets	Read:	FAA General Handbook 8083-30 Chapter 3
			Labs:	Written Aerodynamic Labsheets
			Test:	Aerodynamics Test (Unit Test)
Assignment 2	Physics for the aircraft technician	Test, Quizzes, Worksheets	Read:	FAA General Handbook 8083-30 Chapter 3
			Labs:	Written Physic Labsheets
			Test:	Physics Test (Mid Term)
Assignment 3	Math applications for the aircraft technician	Test & Worksheets	Read:	FAA General Handbook 8083-30 Chapter 1
			Labs:	Written Math Labsheets
			Test:	Math Test (Final Exam)