



MASTER COURSE OUTLINE

Prepared By: Kent Dannenberg

Date: April 2016

COURSE TITLE

Applied Mathematics (AMT)

GENERAL COURSE INFORMATION

Dept.: MAP

Course Num: 100

(Formerly:)

CIP Code: 27.9998

Intent Code: 21

Program Code: 892

Credits: 2

Total Contact Hrs Per Qtr.: 22

Lecture Hrs: 22

Lab Hrs:

Other Hrs:

Distribution Designation: General Elective (GE)

COURSE DESCRIPTION (as it will appear in the catalog)

This course will cover aircraft technical mathematics and is designed for the Aviation Maintenance Technology student. It will cover the fundamental mathematical principles required for the successful completion of the Aviation Maintenance Technology program. This course is FAA approved under 14 CFR Part 147.

PREREQUISITES

MATH 080 or placement into MATH 094 or above

Must be enrolled in the Aviation Maintenance Technology program

TEXTBOOK GUIDELINES

Airframe & Powerplant Mechanics, General Textbook, FAA-H-8083-30

Airframe & Powerplant Mechanics, General Workbook, FAA-H-8083-30

Airframe & Powerplant Mechanics, General FAA Airmen Knowledge Test Guide

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills.

1. Determine place value
2. Problem solving
3. Scientific notation
4. Fractions, Lowest common denominator (LCD)
5. Extract roots and raised numbers to a given power
6. Determine areas and volumes of various geometrical shapes
7. Solve ratio, proportion, and percentage problems
8. Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers
9. Conversion from one unit to another.

INSTITUTIONAL OUTCOMES

IO2 **Quantitative Reasoning:** Students will be able to reason mathematically using methods appropriate to the profession

COURSE CONTENT OUTLINE

- Whole Numbers
- Decimals
- Fractions
- Measurement
- Ratio and Proportion and Percentage
- Algebra
- Geometry

DEPARTMENTAL GUIDELINES *(optional)*

Student grades are based on the following items:

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|----------------------------------|-----|-----|
| 1. Classroom/lecture assignments | | 50% |
| a. Written assignments | 25% | |
| b. Tests | 25% | |
| c. Final exam | 50% | |

Examinations will be given to ensure the understanding and/or retention of the subject material. An appropriate exam will be given to each student who completes each subject area. A quarter final review exam will be given during the last three days of each quarter. Any other testing or quizzes may be given at the instructor's discretion. Each student is given only 3 attempts at passing an exam. The first exam attempt must be passed with a 70% or better, 75% or better for the second and 80% on the third attempt. If the student fails to pass any exam with an acceptable score after three attempts the student will be required to surrender all credits, hours, lab projects, and classroom theory for the subject or subjects failed. The final recorded score will be that of the first attempted exam. Missed or failed exams will be given only with prior arrangements with the instructor.

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| 2. Performance completing lab/shop assignments | 50% |
| a. Quality of work | 50% |
| b. Work habits | 50% |
| i. Follows instructions. | |
| ii. Follow safety rules | |
| iii. Completes assignments in a timely manner. | |
| iv. Stays productive. | |

Laboratory performance will be graded at the completion of each practical assignment by observation, oral examination, or written examination. Practical projects must be completed in a timely manner. A minimum passing grade of 80% must be obtained by each student in order to receive a final Letter of Completion from this course.

Letter Grade	%	Numeric Grade
A	97-100	3.8-4.0
A-	93-96	3.5-3.7
B+	89-92	3.2-3.4
B	85-88	2.9-3.1
B-	81-84	2.5-2.8
C+	77-80	2.2-2.4
C	73-76	1.9-2.1
C-	69-72	1.5-1.8
D+	65-68	1.2-1.4
D	61-64	.9-1.1
D-	58-60	.7-.8
F	0-57	0.0

ATTENDANCE:

The AMT courses are offered as scheduled below.

07:30 to 16:00 Monday through Thursday.

A minimum of 400 hours of attendance is mandatory for the completion of the AMT General program at BBCC. Upon successful completion of 1150 hours of instruction (which includes 400 hours of General and 750 hours of Airframe/Powerplant), a certificate of completion is granted and the student is eligible to take the FAA written exams for the Airframe/Powerplant Mechanic certificate.

The Instructor will monitor absenteeism by use of the student time cards. A student enrolled in the AMT program at BBCC will be allowed to miss a maximum of twenty-four (24) hours of class time per quarter. Those students who miss more than 24 hours of class time may be required to reduce their credits for that quarter.

MAKE-UP PROVISIONS

Make-up time must be arranged with the appropriate instructor and will be completed by the student on his/her own time under the instructor's supervision at the end of the quarter. Make-up hours will be documented through the use of time cards, using time clock procedures, and must be signed by the appropriate instructor. Make-up time and projects will be related directly to those areas of instruction missed by the students.

If time missed is due to school closure caused by weather, power outages, or other unforeseen events, the missed time must be made up during scheduled make-up days at the end of the quarter.

When a student is dropped from a class due to excessive absenteeism, failing grades, or not making up missed time in accordance with the above policies, all recorded attendance hours will be forfeited from the class and considered non-transferable if the student repeats the class.

DIVISION CHAIR APPROVAL

DATE