



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

LAST REVIEW: 2008-2009

(i.e. 2003-2004)

NEXT REVIEW: 2013-2014

(i.e. 2008-2009)

STATUS: A

(A, I, D)

COURSE TITLE: Ground Operations & Servicing

COMMON COURSE NUMBER: AMT 0050

CREDIT HOURS: 1

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS: 31.5

(Voc. Course ONLY)

Lecture: 10.5

Lab: 21

Clinic:

Other:

PREREQUISITE(S): None

COREQUISITE(S): None

PRE/COREQUISITE(S): None

COURSE DESCRIPTION *(750 characters, maximum):* Familiarizes the student with the proper methods of starting ground operating, servicing, and securing aircraft; Student fee charged.

General Education Requirements – Associate of Arts Degree (AA), meets Area(s): Area

General Education Requirements – Associate in Science Degree (AS), meets Area(s): Area

General Education Requirements – Associate in Applied Science Degree (AAS), meets Area(s): Area

UNIT TITLES

1. Ground Operations and Servicing
2. Fuels



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ASSESSMENT:

Please provide a brief description (250 characters maximum) that details how students will be assessed on the course outcomes.

1. Quizzes, Test, and/or Final Exam (cumulative/comprehensive);
2. Selected faculty may assess homework, projects, class participation/attendance, and/or extra credit projects. Upon successful completion of this course, the students should be able to start, ground operate, service, and secure aircraft.

**** Complete the following only if course is seeking general education status ****

GENERAL EDUCATION Competencies and Skills*:

Please highlight in green font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

1. Read with critical comprehension	
2. Speak and listen effectively	
3. Write clearly and coherently	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: <i>(highlight in green ALL that apply)</i> (1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental)	
6. Apply problem solving techniques to real-world experiences	
7. Apply methods of scientific inquiry	
8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings	
9. Demonstrate an understanding of and appreciation for human diversities and commonalities	
10. Collaborate with others to achieve common goals.	
11. Research, synthesize and produce original work	
12. Practice ethical behavior	
13. Demonstrate self-direction and self motivation	
14. Assume responsibility for and understand the impact of personal behaviors on self and society	
15. Contribute to the welfare of the community	

** General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*



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Common Course Number: AMT 0050

UNITS

Unit 1 Ground Operations and Servicing

General Outcome:

- 1.0 The student shall:** The students should be able to start, ground operate, move, service, and secure aircraft.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1 Describe the procedure for extinguishing fires in the engine induction system during starting
- 1.2 Use hand signals to direct aircraft movement.
- 1.3 Tie down and secure aircraft for outside storage.
- 1.4 Protect aircraft fuel system from contamination during fueling operations.
- 1.5 Connect and operate an external source of hydraulic power.
- 1.6 Start and operate an engine equipped with a float-type carburetor.
- 1.7 Check a reciprocating engine for liquid lock.
- 1.8 Operate hand and electrical priming systems during engine starting.
- 1.9 Start and operate an engine equipped with a pressure injection carburetor.
- 1.10 Start and operate an engine equipped with an internal super-charger.



BROWARD COMMUNITY COLLEGE

COURSE OUTLINE

Common Course Number: AMT 0050

Unit 2 Fuels

General Outcome:

- 2.0 **The student shall:** The students should be able to identify and select fuels.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Explain the effect of ethylene dibromide added to aviation gas.
- 2.2 List the identifying color of various grades of aviation gasoline.
- 2.3 Describe the characteristic of a fuel that affects its tendency to "vapor lock".
- 2.4 Explain the significance of the numbers used to designate various grades of aviation gasoline.
- 2.5 Discuss the relative advantages of gasoline and kerosene for use as fuel for turbine engines.
- 2.6 Determine the type of fuel to be used with a specified aircraft.
- 2.7 List the factors affecting the anti-knock characteristics of fuel.