



# 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: Engine Fuel Systems**

**COMMON COURSE NUMBER: AMT 0450**

**CREDIT HOURS: 1**

**CONTACT HOUR BREAKDOWN**

*(per 16 week term)*

**CLOCK HOURS: 21**

*(Voc. Course ONLY)*

**Lecture: 8.5**

**Lab: 12.5**

**Clinic:**

**Other:**

**PREREQUISITE(S): None**

**COREQUISITE(S): None**

**PRE/COREQUISITE(S): None**

**COURSE DESCRIPTION** *(750 characters, maximum):* The student is provided with the knowledge and skills needed to maintain fuel system components. The student will be able to inspect, check, maintain, and repair engine fuel system components. 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. Components
2. Fuel Systems



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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 inspect, check, maintain and repair engine fuel system components.

**Common Course Number: AMT 0450**

## UNITS

### Unit 1 Components

#### General Outcome:

- 1.0 **The student shall:** The students should be able to repair engine fuel system components.

#### Specific Measurable Learning Outcomes:

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

- 1.1 Explain the types of engine-driven fuel pumps generally used with large reciprocating engines.
- 1.2 Explain the purpose and operation of a fuel pump bypass valve.
- 1.3 Explain the purpose and operation of fuel boost pumps.



**Common Course Number: AMT 0450**

**Unit 2 Fuel Systems**

**General Outcome:**

- 2.0 The student shall:** The students should be able to inspect, check, service, troubleshoot and repair engine fuel systems.

**Specific Measurable Learning Outcomes:**

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

- 2.1 Define the causes of fuel pressure fluctuation.
- 2.2 Discuss the characteristics of centrifugal-type fuel boost pumps.
- 2.3 Explain the fuel system requirements for aircraft certificated in the "standard" classification.
- 2.4 Discuss the usual types of aircraft fuel system contamination.
- 2.5 Explain the purpose and requirements for strainers in fuel tank outlets.
- 2.6 Inspect aircraft fuel tank sumps and fuel strainers.
- 2.7 Adjust engine-driven fuel pump output pressure.
- 2.8 Discuss the location and operation of main fuel strainers.
- 2.9 Explain the causes and effects of fuel system vapor lock.
- 2.10 Explain the location and operation of fuel valves.