



BROWARD COMMUNITY COLLEGE

COURSE OUTLINE

LAST REVIEW: 2007-2008

(i.e. 2003-2004)

NEXT REVIEW: 2012-2013

(i.e. 2008-2009)

STATUS: A

(A, I, D)

COURSE TITLE: Communication and Navigation Systems

COMMON COURSE NUMBER: AMT 1240

CREDIT HOURS: 1

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS: 30

(Voc. Course ONLY)

Lecture: **25**

Lab: **5**

Clinic:

Other:

PREREQUISITE(S): None

COREQUISITE(S): None

PRE/COREQUISITE(S): None

COURSE DESCRIPTION *(750 characters, maximum)*: This course introduces the student with basic auto pilot operation and familiarizes him with the installation requirements and use of the various communications in navigation systems. 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. Autopilot and Approach Control Systems
2. Aircraft Electronic Communication and Navigation Systems
3. Antenna and Electronic Equipment Installations

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, and service various communication and navigation systems.



Common Course Number: AMT 1240

UNITS

Unit 1 Autopilot and Approach Control Systems

General Outcome:

- 1.0 The student shall:** The students should be able to inspect, check and service autopilot and approach control systems.

Specific Measurable Learning Outcomes:

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

- 1.1** Explain the operating principles of the sensing device used in an autopilot system.
- 1.2** Describe the purpose and operation of the autopilot.
- 1.3** Describe the purpose of a servomotor in an autopilot system.
- 1.4** Explain the installation requirements for autopilot units.
- 1.5** Describe the function of a position transmitter in an autopilot system.



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

Common Course Number: AMT 1240

Unit 2 Aircraft Electronic Communication and Navigation Systems

General Outcome:

- 2.0 The student shall:** The students should be able to inspect, check, and service aircraft electronic communication and navigation systems.

Specific Measurable Learning Outcomes:

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

- 2.1 Explain the FCC regulations pertaining to the operation of a two-way radio.
- 2.2 Describe the principal conditions which must be considered in the installation of radio.
- 2.3 Describe the protection of radio equipment from shock and vibration.
- 2.4 Describe the methods of reducing engine noise in radio receivers.



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Unit 3 Antenna and Electronic Equipment Installations

General Outcome:

- 3.0 **The student shall:** The students should be able to inspect and repair antenna and electronic equipment installations.

Specific Measurable Learning Outcomes:

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

- 3.1 Explain the preferred location and methods of mounting external antennas.
- 3.2 Describe the procedure for returning an aircraft to service after a radio installation has been made in accordance with approved installation data.
- 3.3 Show the preferred location for the VOR localizer receiver antenna on a small aircraft.