



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: Communication and Navigation Systems

COMMON COURSE NUMBER: AMT 0240

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



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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, and service various communication and navigation systems.

***** 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. Speak and listen effectively	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: (highlight in green ALL that apply) (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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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.



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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.