



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: Aircraft Wood Structures

COMMON COURSE NUMBER: AMT 0110

CREDIT HOURS: 1

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS: 11

(Voc. Course ONLY)

Lecture: 9

Lab: 2

Clinic:

Other:

PREREQUISITE(S): None

COREQUISITE(S): None

PRE/COREQUISITE(S): None

COURSE DESCRIPTION *(750 characters, maximum)*: Aircraft wood structures are covered in this section, and familiarize the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. 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. Wood Structures
2. Wood Defects



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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 differentiate types of construction materials used in aircraft structures including wood, fiberglass, composite and other non-metallic structural materials and their repair methods.

**** 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*



Common Course Number: AMT 0110

UNITS

Unit 1 Wood Structures

General Outcome:

- 1.0 The student shall:** The students should be able to service and repair wood structures.

Specific Measurable Learning Outcomes:

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

- 1.1** Discuss the general requirements of scarf splice joints.
- 1.2** Explain the repair procedure for elongated holes in wood spars.
- 1.3** List the permissible wood substitutes for use in making repairs to wood structures.
- 1.4** Explain the procedures for repairing wood rib capstrips.
- 1.5** Describe the characteristics of glue used in aircraft construction and repair.
- 1.6** Describe the procedure for sealing the inner surfaces of a wooden structure that is to be assembled by gluing.
- 1.7** The general characteristics of the wood commonly used in aircraft construction.



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Unit 2 Wood Defects

General Outcome:

2.0 **The student shall:** The students should be able to identify wood defects.

Specific Measurable Learning Outcomes:

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

2.1 Recognize acceptable and non-acceptable wood defects.



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Unit 3 Wood Structures

General Outcome:

- 3.0 **The student shall:** The students should be able to inspect wood structures.

Specific Measurable Learning Outcomes:

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

- 3.1 Discuss the effect of moisture content on wood size and strength.
- 3.2 Discuss the strength characteristics of wood structures.
- 3.3 Discuss the characteristics of plywood and laminated wood.