

Cape Cod Community College AMTS

Curriculum Subject Guide for AMT 207 Airframe Curriculum, Subject Items 10 - 16

Part 147, Appendix C, Part 1, Subject D – Sheet Metal and Non-Metallic Structures

Subject: Sheet Metal and Non-Metallic Structures

Item 10. Select, install, and remove special fasteners for metallic, bonded, and composite structures (Level 2)

T – 4.0 Hrs / L – 11 Hrs

Item 11. Inspect bonded structures (Level 2)

T – 3.0 Hrs / L – 5.5 Hrs

Item 12. Inspect, test, and repair fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures (Level 2)

T – 3.0 Hrs / L – 8.5 Hrs

Item 13. Inspect, check, service, and repair windows, doors, and interior furnishings (Level 2)

T – 3.0 Hrs / L – 9.0 Hrs

Item 14. Inspect and repair sheet-metal structures (Level 3)

T – 13.25 Hrs / L – 27 Hrs

Item 15. Install conventional rivets (Level 3)

T – 5.0 Hrs / L – 16 Hrs

Item 16. Form, lay out, and bend sheet metal (Level 3)

T – 2.0 Hrs / L – 28 Hrs

Classroom time: 37.25 hours

Lab or shop time: 105 hours

Test time: 12.75 hours

Total Time: 155 hours

Teaching Level 2 and 3

Project 1 Item 10 – 5 Hrs	Project 5 Item 15 – 16 Hrs	Theory Test 3 0.25 Hrs
Project 2 Item 10 – 6 Hrs Item 11 – 5.5 Hrs Item 12 – 8.5 Hrs	Project 6 Item 16 – 28 Hrs	Practical Test 1 4.0 Hrs
Project 3 Item 13 – 9 Hrs	Theory Test 1 0.25 Hrs	Practical Test 2 4.0 Hrs
Project 4 Item 14 – 27 Hrs	Theory Test 2 0.25 Hrs	Practical Test 3 4.0 Hrs

Prerequisite(s)

(1) Satisfactory completion of General Curriculum Module

Course Interruptions: All interruptions or changes in course sequence will be in accordance with the Order of Instruction policy, located in Cape Cod Community College’s Operations Manual, page 17.

Item 10:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B.

Performance: The student will inspect, select, remove and install special fasteners for metallic, bonded, and composite structures

Standard: All work will be in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, as well as AC 43.13-1B

Items 11 & 12:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B. Heatcon HCS9000B Hot Bonder kit.

Performance: The student will inspect, test, and repair fiberglass, honeycomb, composite, and bonded primary and secondary structures on the Cirrus SR-20 using AC 43-13.1B and the Heatcon Hot Bonder kit.

Standard: All work will be in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, AC 43.13-1B, and the Heatcon Hot Bonder Manual.

Items 13:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B Chapter 3. Deluxe Windshield Repair Kit 51-861

Performance: The student will inspect, check, service, and repair windows, doors, and interior furnishing on the Skymaster 337's windows and doors.

Standard: All work will be done in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, AC 43.13-1B Chapter 3, and the Deluxe Windshield Repair Kit 51-861.

Item 14:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B

Performance: The student will inspect and repair sheet metal structures for simulated damaged aircraft skin. The student will manufacture two sheet metal plates, a simulated

“damaged aircraft skin” and a second to simulate an aircraft “repair plate”. The student will then rivet the plates to together and submit to the instructor for inspection.

Standard: All work will be done in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, AC 43.13-1B. Work will be inspected by the instructor for integrity and airworthiness condition of repair.

Item 15:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B

Performance: The student will manufacture a rivet plate in accordance with project instruction and install conventional rivets onto the plate skin

Standard: All work will be done in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, AC 43.13-1B. The rivets will be inspected by the instructor for properly bucked rivet heads, as well as integrity and airworthiness condition of rivets installed in the rivet plate.

Item 16:

Student Performance Goal(s)

Given: 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7. AC 43.13-1B Chapter 4

Performance: The student will form, layout, and bend sheet metal as per AMT 207 Practical Project 6 curriculum guidelines

Standard: All work will be done in accordance with 14 CFR Federal Aviation Regulations for Aviation Maintenance Technicians, Aviation Maintenance Technician Handbook – Airframe, Volume 1 (FAA-H-8083-31), Chapters 1, 4, and 7, AC 43.13-1B. The sheet metal plate will be inspected by the instructor for proper pattern, bend radii, integrity and airworthiness condition of the sheet metal plate

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