Teaching level	
(2)	15. Perform dye penetrant, eddy current, ultrasonic, and magnetic particle inspections.
(1)	16. Perform basic heat-treating processes.
(3)	17. Identify and select aircraft hardware and materials.
(3)	18. Inspect and check welds.
(3)	19. Perform precision measurements.
	F. GROUND OPERATION AND SERVICING
(2)	20. Start, ground operate, move, service, and secure aircraft and identify typical ground operation hazards.
(2)	21. Identify and select fuels.
	G. CLEANING AND CORROSION CONTROL
(3)	22. Identify and select cleaning materials.
(3)	23. Inspect, identify, remove, and treat aircraft corrosion and perform aircraft cleaning.
	H. MATHEMATICS
(3)	24. Extract roots and raise numbers to a given power.
(3)	25. Determine areas and volumes of various geometrical shapes.
(3)	26. Solve ratio, proportion, and percentage problems.
(3)	27. Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers.
	I. MAINTENANCE FORMS AND RECORDS
(3)	28. Write descriptions of work performed including aircraft discrepancies and corrective actions using typical aircraft maintenance records.
(3)	29. Complete required maintenance forms, records, and inspection reports.
	J. BASIC PHYSICS
(2)	30. Use and understand the principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight.
	K. MAINTENANCE PUBLICATIONS
(3)	31. Demonstrate ability to read, comprehend, and apply information contained in FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, and related Federal Aviation Regulations, Airworthiness Directives, and Advisory material.
(3)	32. Read technical data.
	L. MECHANIC PRIVILEGES AND LIMITATIONS
(3)	33. Exercise mechanic privileges within the limitations prescribed by part 65 of this chapter.

[Amdt. 147–2, 35 FR 5534, Apr. 3, 1970, as amended by Amdt. 147–5, 57 FR 28960, June 29, 1992]

APPENDIX C TO PART 147—AIRFRAME CURRICULUM SUBJECTS

This appendix lists the subjects required in at least 750 hours of each airframe curriculum, in addition to at least 400 hours in general curriculum subjects.

The number in parentheses before each item listed under each subject heading indicates the level of proficiency at which that item must be taught.

I. AIRFRAME STRUCTURES

Teaching level	
	A. WOOD STRUCTURES
(1)	1. Service and repair wood structures.
(1)	2. Identify wood defects.
(1)	3. Inspect wood structures.
	B. AIRCRAFT COVERING
(1)	4. Select and apply fabric and fiberglass covering materials.
(1)	5. Inspect, test, and repair fabric and fiberglass.
	C. AIRCRAFT FINISHES
(1)	6. Apply trim, letters, and touchup paint.
(2)	7. Identify and select aircraft finishing materials.
(2)	8. Apply finishing materials.
(2)	9. Inspect finishes and identify defects.
	D. SHEET METAL AND NON-METALLIC STRUCTURES
(2)	10. Select, install, and remove special fasteners for metallic, bonded, and composite structures.
(2)	11. Inspect bonded structures.
(2)	12. Inspect, test, and repair fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures.
(2)	13. Inspect, check, service, and repair windows, doors, and interior furnishings.
(3)	14. Inspect and repair sheet-metal structures.
(3)	15. Install conventional rivets.
(3)	16. Form, lay out, and bend sheet metal.
	E. WELDING
(1)	17. Weld magnesium and titanium.
(1)	18. Solder stainless steel.
(1)	19. Fabricate tubular structures.
(2)	20. Solder, braze, gas-weld, and arc-weld steel.
(1)	21. Weld aluminum and stainless steel.
	F. ASSEMBLY AND RIGGING
(1)	22. Rig rotary-wing aircraft.
(2)	23. Rig fixed-wing aircraft.
(2)	24. Check alignment of structures.
(3)	25. Assemble aircraft components, including flight control surfaces.
(3)	26. Balance, rig, and inspect movable primary and secondary flight control surfaces.
(3)	27. Jack aircraft.
	G. AIRFRAME INSPECTION
(3)	28. Perform airframe conformity and airworthiness inspections.

II. AIRFRAME SYSTEMS AND COMPONENTS

Teaching level	
	A. AIRCRAFT LANDING GEAR SYSTEMS
(3)	29. Inspect, check, service, and repair landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering systems.
	B. HYDRAULIC AND PNEUMATIC POWER SYSTEMS
(2)	30. Repair hydraulic and pneumatic power systems components.
(3)	31. Identify and select hydraulic fluids.
(3)	32. Inspect, check, service, troubleshoot, and repair hydraulic and pneumatic power systems.
	C. CABIN ATMOSPHERE CONTROL SYSTEMS
(1)	33. Inspect, check, troubleshoot, service, and repair heating, cooling, air conditioning, pressurization systems, and air cycle machines.