

Aviation Technology- Aircraft Maintenance and Avionics

Program Learning Outcomes

Learning outcomes represent culminating demonstrations of learning and achievement. In addition, learning outcomes are interrelated and cannot be viewed in isolation of one another. As such, they should be viewed as a comprehensive whole. They describe performances that demonstrate that significant integrated learning by graduates of the program has been achieved.

The graduate has reliably demonstrated the ability to

1. Service aircraft systems on large or small, fixed or rotary wing aircraft in accordance with manufacturers' specified instructions while adhering to Canadian aviation regulations and company standards.
2. Test, troubleshoot, and repair aircraft using accepted aviation techniques and practices.
3. Evaluate fixed wing and rotary aircraft structures including transparencies, materials and fasteners, furnishings and fabric coverings, and lines and conduits, to complete maintenance, assembly, fabrication and repair work on large and small aircraft.
4. Perform scheduled and unscheduled inspections on aircraft structural, operational, environmental, communication, navigation, surveillance and flight guidance systems to ensure they are in proper working order and meet standards of performance and safety.
5. Remove, install, and configure airframe parts, components, and line replaceable units as part of unscheduled maintenance and out-of-phase tasks.
6. Remove, install, and configure the aircraft power plant and accessories on both turbine and piston engines.
7. Remove, install, configure, test, and evaluate function and operation of instrument, communication, navigation, surveillance and flight guidance systems.
8. Diagnose malfunctions and defects in aircraft systems, avionics systems, and related components using technical manuals, drawings, wiring diagrams, engineering orders, and standards of performance and safety.
9. Complete minor structural repairs and modifications in accordance with technical manuals, standard practices, and safety precautions.
10. Evaluate component wear and fatigue to determine necessary repair or replacement tasks.
11. Complete airworthiness directive, manufacturer's service bulletin, and engineering modification tasks on aircraft systems, avionics systems, and structures.
12. Dismantle and reassemble airframes, aircraft engines and electrical and electronic systems for repair and overhaul.
13. Interpret written instructions, schematics, manufacturer's specifications, technical drawings, manuals, and computer based information while performing routine and unscheduled tasks.
14. Maintain detailed inspection, repair, maintenance, and certification records and reports to meet industry regulations and logbook requirements.
15. Perform all work in accordance with health and safety regulations, manufacturers' instructions and

specifications, Transport Canada guidelines, and company practices, policies and procedures.