Aerospace Aviation Maintenance Technology
Associate of Applied Science • Technical Certificate

Overview
This program prepares students for entry-level employment in aerospace technology airframe maintenance mechanical fields. The curriculum fulfills the FAA requirements for lecture and lab hours needed prior to taking the FAA licensing exam. Students will receive the knowledge and skills necessary to work in various phases of aviation general and airframe industries. Students will receive hands-on instruction from certified FAA Airframe and Power licensed instructors in a lab setting approved by the FAA as a CFR part147 school.

Program Outcomes
- Prepare students to enter the aviation airframe maintenance industry as a skilled entry-level employee.
- Create a highly skilled workforce to meet the regional needs of aviation maintenance mechanics.
- Students will be able to demonstrate the skills necessary to repair the airframe of an aviation vehicle.
- Upon successful completion students will be eligible to take the FAA licensing exam for Aviation General and Airframe Mechanics.
- Use basic communication skills to meet the needs of the workplace.
- The student will be able to measure voltage, current, and resistance in electrical circuits.
- The student will be able to utilize weight and balance information, weigh aircraft, and perform calculations pertaining to center of gravity and loading conditions.
- The student will be able to fuel and defuel aircraft, move aircraft on the ground, and to operate engines.
- The student will possess the skills necessary to repair, fabricate, and assemble sheet metal structure.
- The student will possess a general knowledge of welding techniques used in the aircraft industry.
- The student will be able to fabricate, inspect, and repair composite structure.
- The student will be able to perform maintenance of flight control systems.
- The student will be able to repair landing gear components and perform required maintenance on braking systems.
- The student will be able to perform maintenance on hydraulic and fuel systems.
Aerospace Aviation Maintenance Technology
Associate of Applied Science • Technical Certificate

Employment Outlook

- Aircraft mechanics and service technicians, who repair and perform scheduled maintenance on aircraft, totaled 300 in Idaho. The occupation is projected to grow 11 percent. Idaho Department of Labor estimates 19 openings annually from 2010 to 2020.

- Nationally, 86 percent of aircraft mechanics and service technicians work in the private sector. The rest work for governments. While the breakdown in Idaho is imprecise, the state's vast public lands and the need to maintain them put public sector employment of mechanics and technicians, primarily by the federal government at 21 percent. Private employment is concentrated in the Idaho Falls and Boise areas. Public sector employment is heaviest in north central and southeastern Idaho. However, most of the growth in this occupation is expected in northern Idaho, where EMSI projects a 52 percent increase in jobs—most of the growth in the private sector—from 63 in 2012 to 96 in 2022.

- In May 2012, the median annual wage for aircraft mechanics and service technicians in Idaho was $47,550, or $22.76 an hour, nearly 37 percent higher than the median annual wage for all occupations. Nationwide, the median wage was $55,210, 16 percent higher than Idaho.

Fixed Base Operators in this region:

- Empire Airlines
  Hayden, ID
- Granite
  Sandpoint, ID
- Southfield Aviation
  Hayden, ID
- Western Aircraft
  Spokane, WA
- Landmark Aviation
  Spokane, WA
- Turbo Air
  Boise, ID
- Jackson Jet Center
  Boise, ID

Aerospace Aviation Maintenance Technology Associates of Applied Science
Program Requirements

Semester One
Course No. Title Credits
AERO 101 Aviation Science 3
AERM 102 Basic Electricity 3
AERM 103 Weight and Balance 2
AERM 104 Shop Practices 3
AERM 105 Ground Operations 3
AERM 106 Federal Aviation 2
Credits 16

Semester Two
Course No. Title Credits
AERO 201 Wood Fabric and Finishes 2
AERM 202 Aircraft Sheet Metal 5
AERM 203 Aircraft Composites 2
AERM 204 Aircraft Welding 2
AERM 205 Assembly and Rigging 2
AERM 206 Airframe Inspection 2
Credits 15

Semester Three
Course No. Title Credits
AERO 211 Lading Gear Systems 3
AERM 212 Hydraulics, Pneumatics and Fuels 3
AERM 213 Airframe Auxiliary Systems 3
AERM 214 Instruments and Nav/GPS Systems 2
AERM 215 Airframe Electrical 3
Credits 14

Semester Four
Course No. Title Credits
ENGL 101 English Composition 1 3
MATH 123 Contemporary Mathematics (or higher) 3
AAS General Education Requirement-Social Science 1 3
AAS General Education Requirement-Science 1 3
AAS General Education Requirement 2 3
Credits 15-18
Total Credits 60-61

Notes:

1 Satisfies the A.A.S. degree general education requirement.
2 Select from the A.A.S. degree requirements listed in the NIC 2014-2015 catalog on page 64.

Aerospace Aviation Maintenance Technology Certificate

Semester One
Course No. Title Credits
AERO 101 Aviation Science 3
AERM 102 Basic Electricity 3
AERM 103 Weight and Balance 2
AERM 104 Shop Practices 3
AERM 105 Ground Operations 3
AERM 106 Federal Aviation 2
ATEC 117 Occupational Relations and Job Search 2
Credits 18

Semester Two
Course No. Title Credits
AERM 201 Wood Fabric and Finishes 2
AERM 202 Aircraft Sheet Metal 5
AERM 203 Aircraft Composites 2
AERM 204 Aircraft Welding 2
AERM 205 Assembly and Rigging 2
AERM 206 Airframe Inspection 2
ENGL 099 Fundamentals for Writing or ENGL 101 3
Credits 18

Semester Three
Course No. Title Credits
AERO 211 Lading Gear Systems 3
AERM 212 Hydraulics, Pneumatics and Fuels 3
AERM 213 Airframe Auxiliary Systems 3
AERM 214 Instruments and Nav/GPS Systems 2
AERM 215 Airframe Electrical 3
MATH 022 Technical Math (or higher) 3
Credits 17
Total Credits 53

This project was funded $2,876,463 (100% of its total cost) from a grant awarded under the Trade Adjustment Assistance Community College and Career Training Grants, as implemented by the U.S. Department of Labor’s Employment and Training Administration.

North Idaho College is an equal opportunity employer/program and auxiliary aids and services are available upon request to individuals with disabilities.