



Aerospace Composite Technology

Overview

The Aerospace Composite Technology program will expand the ability of North Idaho College to respond to the economic and workforce development needs in North Idaho by increasing the education and skill attainment of TAA-eligible, veterans, and other potential students for employment in the aerospace industry. The program seeks to enroll participants into an effective series of courses that stack industry-recognized credentials leading to certificates and degree attainment.

Program Outcomes

- Students will be able to fabricate and repair composites using industry recognized techniques.
- Students will demonstrate the skills and knowledge necessary to work in an entry-level quality assurance position for the composite fabrication industry.
- Students will be able to apply quality assurance techniques to composite processes.
- Students will demonstrate the skills and knowledge necessary to repair composites necessary in the aerospace industry.
- Students will operate tools and equipment safely. This includes personal and aircraft safety standards related to shop layout, equipment use, and the handling and storage of materials.
- Students will read and correctly interpret blueprints.
- Students will demonstrate an understanding of, and define and utilize, composite terminology.
- Students will consistently display precision manufacturing processes such as measuring, drilling, and fabricating components.
- Students will demonstrate appropriate use of cutting tools.
- Students will attach fasteners, metal components, brackets, and fittings to composite materials with precision and proper care of materials.
- Students will use basic communication skills to meet the needs of the workplace.

The time is
NOW!

Apply for the Aerospace
Composite Technology
program.

www.nic.edu/apply

Information:

North Idaho College
Aerospace Center of Excellence (ACE)
1845 Dakota Avenue, Hayden, ID 83835
(208) 625 2344 ace@nic.edu
www.nic.edu/aerospace

See reverse for
program requirements 

www.nic.edu



North Idaho College

Aerospace Composite Technology

Employment Outlook

- Employment in aerospace maintenance and manufacturing has continued to grow in Northern Idaho, including 16 percent growth during the 2008-2009 recession years. This program was created in close cooperation with local industry who continue to require more highly-skilled workers in aerospace and advanced manufacturing careers.
- This curriculum was evaluated by the IAM/Boeing Joint Apprenticeship Program and the one-year certificate is a recognized qualifier for two IAM/Boeing apprenticeships (www.iam-boeing-apprenticeship.com: Blue Streak Mechanic and Composite Manufacturing Technician “ (www.iam-boeing-apprenticeship.com/PrepPack.pdf).
- Idaho Department of Labor employment forecasts a 20 percent increase in the aerospace, manufacturing, and machining industries between 2010 and 2020.

Composites in Northern Idaho:

- Empire Aerospace
Hayden, Idaho
- AGC AeroComposites
Hayden, Idaho
- Quest Aviation
Sandpoint, Idaho
- Aerocet
Priest River, Idaho

Composites in this region:

- Idaho Aerospace Alliance
www.idaero.org
- Inland Northwest Aerospace Alliance | www.inwac.org
- Triumph Composite Systems
Airway Heights, WA
- ATC Manufacturing
Spokane Valley, WA
- Multi-Fab
Spokane Valley, WA
- C&D Zodiac,
Newport, WA

Aerospace Composite Technology Stackable Program

The Aerospace Composite Technology program provides in-depth instruction in the processes involved in the development and production of aircraft composites. Students will gain skills in assembly, finish work, fabrication, disassembly, complex repair techniques, and inspection of composites for quality assurance. Students will have the opportunity to receive stackable certificates that allow them to exit into the workforce at various points in the program.

Aerospace Technology Core Post-Secondary Certificate

Course Number	Course Name	Credits
AERO 110	Safety/OSHA	1
AERO 111	Blueprint Reading	2
MATH 022	Technical Math	3
AERO 120	Introduction to Composites	3

Aerospace Composite Fabrication Post-Secondary Technical Certificate

Course Number	Course Name	Credits
AERO 121	Composite Fabrication Methods/Applications	2
AERO 122	Composite Finish Trim	1
AERO 123	Composite Assembly	2
AERO 130	Disassembly and Damage Removal Techniques	1
TOTAL CREDITS		15

Aerospace Repair and Quality Assurance Post-Secondary Technical Certificate

Course Number	Course Name	Credits
AERO 140	Introduction to Quality Assurance	3
ENGL 099	Fundamentals of Writing	3
AERO 131	Composite Repair	2
AERO 132	Complex Composite Repair	1
AERO 133	Electrical Bonding Repair	1
AERO 141	Geometric Dimensioning and Tolerance	1
AERO 142	Composite Inspection	1
TOTAL CREDITS		12

Aerospace Composite Technician Post-Secondary Certificate

TOTAL **27**

Want to know more about composites?

Search the web. Some key words to help you explore composites:

Carbon fiber, resin infusion, epoxy resins, “pre-preg” (preimpregnated material), unidirectional carbon, Kevlar 49, VARTM (vacuum assisted resin transfer molding), nomex honeycomb, Boeing 787, Zylon™, FibreGlast

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