

AIRCRAFT STRUCTURAL TECHNICIAN

Credential Issued:

ITA Certificate of Qualification (Aircraft Structural Technician)

(Persons completing a formal apprenticeship also receive a Certificate of Apprenticeship)

Occupational Description:

“Aircraft Structural Technician” means a person who selects, measures, shears, cuts, bends, forms, heat treats, seals, fabricates, fits, inspects, paints and refinishes parts and components to drawing specifications. Drills, countersinks, dimples, reams and taps holes for bolting, screws, riveting and installation of special fasteners. Assembles parts and components and sub-assemblies, using special jigs and fixtures. Uses special tools and tooling for installation of bolts, rivets, screws and special fasteners. Installs completed components in aircraft and inspects and verifies the installation and operation of the components affected using test and measuring equipment as required. Reworks and/or replaces components to rectify damaged or malfunctioning components.

Program Duration & Structure:

The program will be delivered in a variety of formats combining in-school and work-based training, all designed to meet the competency standards and profile defined by the industry and approved by ITA and will generally take 4 years to complete.

The program includes:

- In-school: 16 weeks* (approximately 4 weeks per level)
- Work-based: 6,720 hours

*The in-school / technical training requirement is typically met through block release training delivered by an ITA approved training provider. It can also be met through approved alternative training models (e.g. distance education, part-time) and / or level challenge exam where these options are available.

Program Completion Requirements:

Completion of 6,720 workplace hours:

- Sponsor attestation

Completion of technical training: (Requirement can be met through challenging a level exam where available.

- Level 1 – practical assessment and written level examination
- Level 2 – practical assessment and written level examination
- Level 3 – practical assessment and written level examination
- Level 4 – practical assessment and written level examination

Program Challenge Requirements:

- 10,080 documented hours of directly related work experience required to challenge the BC Certificate of Qualification written examination

Program Pre-requisites:

- Recommended Education: Grade 12 or equivalent including English 12, Math 12, & Science 12

Assessment Methods:

- In-school assessments (practical & written exams)
- Work-based assessments (practical)
- Final Assessment (BC Certificate of Qualification written examination)
- Level exams by challenge

Linkages to Other Credentials:

n/a

Program Standards Documentation:

- Program Outline

Industry Program Standards Mechanism:

TBA

Program Providers:

Institution-based component of the program will be delivered by public post-secondary institutions (see www.educationplanner.bc.ca/apprenticeship.cfm for a list of schools), private training institutions, and secondary schools that have been approved by ITA.

Technical Training Content:**Level 1**

Orientation
Safety
Tools & Equipment
Technical Drawings
Technical Information
Applied Math/Physics
Basic Metallurgy
Aero Dynamics
Aircraft Structure Components & Functions
Sheet Metal Fabrication
Corrosion Control
Sealants
Heat Treatment
Special Fastener Installation & Processes

Level 3

Sealants
Alodining
Priming & Painting
Windows & Lenses
NDI
Press Brake
Heat Treatment
Fluid Lines and Conduits

Level 2

Coin Dimpling
Cold Working Holes
Spot Facing
Reaming
Temporary & Permanent Fastener Ins
Torquing
Safety Devices
Permaswage
Electrical Bonding of A/C

Level 4

Composite Construction
Advanced Blueprint Reading
Intro to Shop Computer Use
Mould Making
Auto Clave Operation
Temper Inspection
Geometric Tolerancing
Phosphoric Chromic Acid Anodizin

Approved: March 2002 (ITAC)

Updated: January 2006 (ITA)