

**NORTHERN LIGHTS COLLEGE
REGISTRAR'S OFFICE
PROGRAM INFORMATION AND COMPLETION GUIDE**

Program Name: Aircraft Maintenance Technician
Credential/Certification: Aircraft Maintenance Technician Diploma
Date Submitted: October 2021
Effective Date: September 2022

Program Contact: trades@nlc.bc.ca

Dean: Leo Manning

Document Author: Rod Cork

Program Description:

The Aircraft Maintenance Technician program trains students to troubleshoot and perform aircraft inspections, including airframe structures, engines and aircraft systems. They learn to disassemble and remove defective parts, assemble and install replacement parts, interpret technical manuals, drawings and blueprints, test aircraft systems, record problems, take actions to rectify the issues and maintain an accurate statement of the maintenance history.

Pathways to Certification

In BC, an individual can obtain a Certificate of Apprenticeship as an Aircraft Maintenance Technician by completing the required hours and recording a sponsor attestation. Apprenticeship programs are for individuals who have an employer to sponsor them.

There is no challenge pathway for this program.

Note: Licensing for Aircraft Maintenance Engineer (AME) "M" rating is separate from certification as an ITA Aircraft Maintenance Technician. AME licensing is issued by Transport Canada. There are no transferable credits between the two programs. Please visit www.tc.gc.ca for details. This program has Transport Canada accreditation for Basic M training.

This program is also Canadian Armed Forces Accreditation Certification Equivalency approved, allowing one to fast track their career with the armed forces.

Admission Requirements:

Math – one of the following:

BC Pre-Calculus Math 11 or BC Pre-Calculus Math 12 with a minimum final grade of C, or equivalent.

Alberta Applied Math 20, Math 20-3, Math 20-2, Pure Math 20, or Math 30-1 with a minimum final grade of C.

MATH 040 or higher, with a minimum final grade of C, or equivalent.

English – one of the following:

BC Language Arts 11 Courses – 4 credits earned, minimum individual grade of C, or equivalent.

BC Language Arts 12 Courses – 4 credits earned, minimum individual grade of C, or equivalent.

Alberta English Language Arts ELA 20-2, or ELA 20-1 with a minimum final grade of C.

Alberta English Language Arts ELA 30-2, or ELA 30-1 with a minimum final grade of C.

ENGL 040 or higher, with a minimum final grade of C, or equivalent.

IELTS score of 6.0 overall with no band less than 5.5 or equivalent English placement test and score.

Concurrent studies (dual credit)

Math – one of the following:

BC Pre-Calculus Math 11 with a minimum final grade of C, or equivalent.

BC Pre-Calculus Math 12 with a minimum final grade of C, or equivalent.

English – one of the following:

BC Language Arts 11 Courses – 4 credits earned, minimum individual grade of C, or equivalent.

BC Language Arts 12 Courses – 4 credits earned, minimum individual grade of C, or equivalent.

A grade 11 core science (preferably physics) or equivalent with a minimum grade of C.

One Grade 10 level shop class is also recommended.

Aircraft Mechanic Basic Students

Applicants who have successfully completed the NLC Aircraft Mechanic Basics

Certificate program may enter at Semester 3 and complete Semesters 3 and 4.

Okanagan Transfer students

Successful completion of equivalent coursework to Semesters 1, 2, and 3 at Okanagan College with attendance of 95% and higher or no more than 68.25 hours missed and a minimum of 70% in all courses.

Length of Program: (weeks and total hours)

76 weeks (1820 hours)

Training occurs over a 4 semester 2 year program. Each semester is 455 hours or 18.2 weeks contact. There is mid-year and summer breaks.

Program Intake: (start/finish dates) September or February.

Available Seats: 16

Application Deadline: All completed applications must be received one month prior to the start of the program. Completed applications received after this date will be reviewed based on seat availability.

Career Prospects: Employment may be found working for airlines and various other aviation-related businesses such as air taxis, police, air ambulances, survey companies, agriculture, and pilot training facilities. Some flying clubs also employ aircraft engineers. Others opportunities include employment as instructors, administrative sales personnel, technical reps, accident investigators or the Canadian Armed Forces. They can also be employed by aircraft manufacturers in production fitting or design and development..

Affiliations/Partnerships:

In Partnership with Okanagan College Vernon Campus. Northern Lights College Aircraft Maintenance Technician theory and practical curriculum is delivered under Transport Canada approval in Vernon, BC. by Northern Lights College instructional staff. Students accomplish 1.5 years of training at the Vernon Campus and the final semester of training at the Dawson Creek campus in the 24000 square foot hangar with 15 aircraft to work on sharing the extensive complement of aircraft available in the Dawson Creek Aerospace Centre at Northern Lights College.

Location: Dawson Creek Campus

Additional Requirements/Supplies: (fees, supplies, materials)

Two pairs of full-sleeved coveralls, footwear having CSA safety-toe protection with soft soles for climbing on aircraft, and CSA approved safety glasses with clear lenses.

Textbooks.

Students are required to have a computer (laptop or other mobile device) with minimum computer requirements as listed on the NLC website (www.nlc.bc.ca/Services/Information-Technology/minPC).

Scientific Calculator and USB Stick.

Eligibility for Canada Student Loans: (Yes or No)

Yes

Required Minimum Grade: (overall and/or minimum within a course)

Students who achieve a 70% minimum course grade in all courses and do not exceed 5% absenteeism or 91 hours over the entire program, broken down per semester at 22.75 hours per semester will receive accreditation with Transport Canada (noted on transcript and diploma with a Transport Canada approval number). Students who achieve between 60% and 70% in all courses, or students who exceed 5% absenteeism over the entire program, will not receive accreditation with Transport Canada (noted on transcript and diploma as NON ACCREDITED).

Residency Requirement: (percentage of courses which must be taken at NLC)
100% at an approved Northern Lights College Training Facility:

Required Courses: (list courses required to complete credential
and total hours for each course)

Semester 1

AMT101 General Introduction (10 hours)
AMT102 Aerodynamics Fixed Wing Aircraft (25 hours)
AMT103 Materials Aircraft Structures (40 hours)
AMT104 Aircraft Hardware Approved Parts (24 hours)
AMT105 Aircraft Hydraulic Pneumatic Systems (20 hours)
AMT106 Aircraft Equipment Introduction (8 hours)
AMT107 Basic Aircraft Electricity DC (30 hours)
AMT108 Blueprint Design (14 hours)
AMT109 Hand Tools (24 hours)
AMT110 Aviation Math (10 hours)
AMT111 Canadian Aviation Regulations 1 (24 hours)
AMT112 Flight Controls Fixed Wing and Rigging (8 hours)
AMT114 Practical Projects (218 hours)

Semester 2

AMT121 Canadian Aviation Regulations 2 (24 hours)
AMT122 Non Destructive Testing Corrosion (24 hours)
AMT123 Aircraft Aerodynamics Rotary (16 hours)
AMT124 Human Factors in Aviation (8 hours)
AMT125 Aircraft Maintenance Inspections (32 hours)
AMT126 Basic Electricity AC (16 hours)
AMT127 Turbine Engine Theory (24 hours)
AMT128 Piston Engines 1 (32 hours)
AMT129 Reciprocating Components (54 hours)
AMT130 Electrical Systems (37 hours)
AMT132 Practical Projects 2 (188 hours)

Semester 3

AMT210 Instrumentation and Avionics (40 hours)
AMT211 Dynamic Systems (30 hours)
AMT212 Aircraft Protection Systems (48 hours)
AMT213 Weight and Balance (8 hours)
AMT214 Piston Engines 2 (36 hours)
AMT215 Propellers (24 hours)
AMT216 Turbine Engine Systems (32 hours)
AMT217 Landing Gear (24 hours)
AMT218 Rotary Flight Controls and Rigging (16 hours)
AMT219 Turbine Engine Systems (24 hours)
AMT220 Practical Projects 3 (173 hours)

Semester 4

AMT221 Canadian Aviation Regulations 3 (16 hours)
AMT222 Practical Projects 4 (439 hours)