

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

Program Name: Aircraft Maintenance Engineering - Basic Training
Credential/Certification: Diploma in Aircraft Maintenance Engineering-
Basic Training
Date Submitted: June 2015
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Dean:

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Program Description: This program is for the individual seeking to attain a Canadian Aircraft Maintenance Engineer (AME) license, category M1 or M2. Federal law requires aircraft to be certified before flight at regular intervals and after maintenance. An Aircraft Maintenance Engineer is the person who accepts the responsibility for the work they are certifying. An AME must have thorough knowledge of the maintenance and repair requirements for each aircraft they certify. Refer to the Transport Canada website <http://www.tc.gc.ca/civilaviation/maintenance> for detailed license information. There are three components required prior to an application for license: training, experience, and successful completion of the Canadian Aviation Regulation exam near the end of the experience component. A diploma from this 15 month program covers the training component and 18 months (1.5 years) of the 48 month (4 year) experience component which are both required to obtain an AME license. Approximately 45% of this program is theory with the remaining 55% the practical application of that theory.

Admission Requirements:

Provide British Columbia secondary school transcripts or equivalent (Alberta/NWT equivalent course numbers in brackets) indicating successful completion in of:

- Communications 11 (Alberta ELA 20-2), English 11 (Alberta ELA 20-1), ENGL 040 = 67% (C+), or
- Communications 12 (Alberta ELA 30-2), English 12 (Alberta ELA 30-1), ENGL 050 = 60% (C);
- Applications of Mathematics 11 (Alberta Applied Math 20), or
- Apprenticeship and Workplace Mathematics 11 (Alberta Math 20-3) , or
- Foundations of Mathematics 11 (Alberta Math 20-2), or
- Principles of Mathematics 11 (Alberta Pure Math 20) to a 67%, or
- Pre-Calculus Mathematics 11, MATH 40 (Alberta Math 30-1) to a 60%, or higher.

OR, complete the following sections of the Canadian Adult Achievement Test (CAAT):

- Reading Comprehension: 12.0 grade equivalent or higher
- Number Operations: 11.0 grade equivalent or higher
- Problem Solving: 11.0 grade equivalent or higher
- Mechanical Reasoning: 51/70 (6th Stanine) or higher.

Dual Credit (BC's ACE IT program)

- Grade 11 level completion that includes Grade 11 English or Grade 11 Communications, Grade 11 Math, and a Grade 11 core science (preferably physics) equivalent, all with 67 per cent (C+) or higher. One Grade 10 level shop class is also recommended.

For International Education Requirements (English as a Second Language) please contact the International Education Department at Northern Lights College for details.

Work experience and transcripts of grades from subjects other than those listed above will also be considered for admission support.

Length of Program: (weeks and total hours)

63 weeks (1820 hours)

Training occurs over a 17-month period due to summer closure of the Aerospace Centre during July and August.

Program Intake: (start/finish dates)

Please refer to the Trades and Apprenticeship, Apprenticeship Intake Schedule on our website.

Available Seats: 17

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

Career Prospects: The industry and government demographic studies carried out five years ago have proven true and Industry is experiencing a large short fall in apprentices and engineers.

Affiliations/Partnerships:

Partnership Training - Okanagan College Vernon Campus
- Aerospace Training in Aircraft Maintenance Engineering Northern Lights College theory and practical curriculum is delivered under Transport Canada approval in Vernon, BC. Students accomplish 12 months (49 weeks) of training in Vernon, and then move to Dawson Creek to complete the final 3 months (14 weeks) of practical curriculum sharing the extensive compliment of aircraft available in the Dawson Creek Aerospace Centre at Northern Lights College

Bachelor of Technology, Open University and BCIT Northern Lights College, in collaboration with the Open University and British Columbia Institute of Technology, offers a Bachelor of Technology (Technology Management) Degree. This course of study is intended for graduates of Northern Lights College's Aircraft Maintenance Engineering program who have gained their AME license. For further information contact the Aviation Program Chair.

Bachelor of Science, University of North Dakota In 1994 the University of North Dakota and Northern Lights College signed an Affiliation Agreement. This agreement enables students who graduate with an Aircraft Maintenance Engineering Diploma from Northern Lights College to transfer directly to the University of North Dakota for entry into its Bachelor of Science Degree program in Airway Science: Aviation Maintenance Management Degree.

Location: Northern Lights College Dawson Creek Campus and Okanagan College Vernon 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 Safety glasses with clear lenses.

Students are required to bring their own laptop capable of accessing the NLC wireless network.

Textbooks.

For Student Residence Fees on campus in Dawson Creek see website information at <http://www.nlc.bc.ca/Admissions/StudentResidences/DawsonCreekCampus.aspx>

Eligibility for Canada Student Loans: (Yes or No)

Yes

Required Minimum Grade: (overall and/or minimum within a course)
70% minimum course grade.

Attendance Requirement: 90 hours absenteeism over entire course and 30 hours per semester.

Residency Requirement: (percentage of courses which must be taken at NLC)
100% at an approved Northern Lights College Training Facility:
-Dawson Creek, BC
-Okanagan College, Vernon BC: refer to affiliations/partnerships explanation

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

Theory

AMET100 Course Introduction
AMET101 Theory of Flight
AMET102 Blueprints and parts
AMET103 Aircraft electricity
AMET104 Non-Destructive Inspection
AMET105 Tools for Aircraft Maintenance Engineering
AMET106 Materials and Structures
AMET107 Hydraulics
AMET108 Regulations and Publications
AMET109 Reciprocating Engines
AMET110 Reciprocating Engine Components
AMET111 Turbine Engines
AMET112 Engine Auxiliary Systems
AMET113 Propellers
AMET114 Aircraft Handling and Inspections
AMET115 Aircraft Controls and Rigging
AMET116 Fuel and Environmental Systems
AMET117 Landing Gear and Dynamic Drive Trains
AMET118 Navigation and Communications
AMET119 Aircraft Auxiliary Systems
AMET120 Troubleshooting and Human Factors in Aircraft Maintenance and Management

Practical

AMEP100 Human Factors in AME Training
AMEP101 Practical use of Hand and Machine Tools
AMEP102 Rivet Installation
AMEP103 Aluminum Forming, Assembly, and repair
AMEP104 Structural Repair
AMEP105 Shop Cleanup

AMEP106A Electrical Components
AMEP106B Electrical Installation
AMEP107 Engine Maintenance
AMEP108 Engine Components
AMEP109 Safety and Hydraulics
AMEP110 Control Rigging
AMEP111 Scheduled Inspection
AMEP112 Weight and Balance
AMEP113 Engine Installation and Testing
AMEP114 Rotor Systems
AMEP115 Hangar Support Facilities
AMEP116 Approved Maintenance Organization
AMEP117 Airframe Auxiliary Systems
AMEP118 Landing Gear
AMEP120 Trouble Shooting and Repair

Final Exams

AMEF101 Fixed Wing Airframe Final Exam
AMEF102 Rotary Wing Airframe Final Exam
AMEF103 Piston Engine Final Exam
AMEF104 Turbine Engine Final Exam