Confederation
SCHOOL OF ENGINEERING TECHNOLOGY & TRADES

Aerospace Manufacturing Engineering Technology

Program Code: 0312

Overview

Your ideas can change the world! From building planes to developing new products that improve peoples' lives, there's never been a more exciting time to pursue a career in advanced manufacturing.

This three-year diploma program teaches you how to function effectively in Canada's aerospace industry, taking it a step further than the two-year technician program. Work with advanced design programs such as CATIA. Learn about carbon fibre composites and how these materials make a world of difference in flight and other industries. Get hands-on experience in machining, CNC, rapid prototyping with 3D printing, laser cutting and other manufacturing fundamentals. In your third year, you'll also learn machine design, advanced tool design, operations research and management and advanced manufacturing. This program gives you the tools you need to develop a fulfilling career, bringing solutions to life and making a mark in the fields of aviation and advanced manufacturing and engineering.

Top Highlights

- Developed in consultation with Canada's leading aerospace companies including Avcorp (BC), Arnprior Aerospace, Bombardier Regional Aircraft (deHavilland), Bombardier Transportation (Thunder Bay), Boeing Canada Technology Ltd. and Magellan Aerospace
- Learn and work in our state-of-the-art lab facilities located in the new Technology, Education and Collaboration Hub
- Transfer your innovation, design and other skills to industries including mass transit, car manufacturing, recreational vehicle design and manufacturing, and more

Learner Testimonial

The AMET program offers the perfect balance between trades, technology and engineering. The teachers and state-of-the-art equipment excited and motivated me, and I enjoyed the blend of hands-on education, theory classes and project-based learning. The program taught me to always take solution-oriented approaches and I gained a substantial amount of manufacturing knowledge to prepare me for my career. The AMET program is well established amongst some of the largest manufacturing companies so there are never-ending job prospects upon graduation.

Greg G. / Alumnus / 2019 (2-yr) & 2020 (3-yr)
Lead Advanced Manufacturing Technologist / Northwestern Ontario Innovation Centre

Aerospace Manufacturing Engineering Technology

Admission Requirements

- Ontario Secondary School Diploma (or equivalent) with courses from the College (C), University (U), University/College (U/C), or Open (O) preparation levels with Grade 12 English (C/U) Level.
- or successful completion of the Mature Student Assessment.
- or successful completion of the General Education Development Test (GED).
- or appropriate credits from the Academic and Career Entrance program (ACE).

Other Required Courses

- Grade 11 MCF3M Functions and Applications or MCR3U Functions or Grade 12 MAP4C Foundations for College Math or MCT4C Mathematics for College Technology or University Preparation.

Alternative Pathways

If you do not possess the necessary admission requirements (or equivalency), we encourage you to consider our Pre-Technology-Technology/Aviation program which will provide the necessary preparation to apply to this program. Completion of the Pre-Technology-Technology/Aviation program does not guarantee admission to the Aerospace Manufacturing Engineering Technician program in a subsequent year.

Employment Opportunities

Graduates of Confederation College's Aerospace Manufacturing Engineering Technology, Advanced Diploma program go on to work at aerospace manufacturing and design companies including Bombardier, Boeing, Bell Helicopter, Airbus and others. Many of the skills and knowledge you'll learn here can be easily transferred to other industries including automotive, rail and industrial manufacturing.

Articulation Agreements

Confederation College has agreements in place that permit credits earned throughout this program to be transferred to programs at other colleges and universities.

Visit: **confederationcollege.ca/articulation-agreements** for more information.

First Semester

TM 107	Physical Science for Aerospace & Mechanical Engineering
TM 112	Engineering Graphics CAD I
TM 121	Metal Fabrication Methods
TM 136	Machine Shop I
MA 133	Mathematics I
CS 050	College Writing
MC 165	Microsoft Office

Second Semester

CS 219	Communications for Technology
TM 207	Statics
TM 212	Engineering Graphics/CAD II
TM 221	Aircraft Assembly Methods 1
TM 236	Machine Shop II
TM 269	Energy & Environment Issues Manufacturing
GE	General Elective
MA 231	Mathematics II

Third Semester

TM 313	Strength of Materials
TM 321	Aircraft Assembly Methods 2
TM 333	Chemistry of Metals, Polymers and Ceramics
TM 336	CNC Programming and Metal Cutting Theory
TM 348	Manufacturing and Joining Processes
TM 347	Tool Design I
GE	General Elective

Fourth Semester

GE	General Elective
MA 331	Mathematics III
TM 436	CNC Programming
TM 427	Intro to Operations Management
TM 433	Fluid Power
TM 452	Metallurgy and Materials Testing
TM 453	Composites I

Fifth Semester

TM 547	Tool Design II
TM 526	Machine Design
TM 653	Composites II
TM 552	Advanced Materials
TM 539	Statistical Process Control

Sixth Semester

TM 628	Applied Operations Management
TM 652	Topics in Adv Manufacturing
TM 611	Operations Research
TM 626	Automated Systems Design
TM 651	Applied Project

For information, please contact:

Rod Kotanen
Program Coordinator
(807) 475-6450 | Arvid.Kotanen@confederationcollege.ca

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NOTE: Content subject to change. Visit the program website for the most current information.