

Manufacturing Engineering Technician/Technology

A Two/Three-Year Ontario College
(Advanced) Diploma with Co-op
1001 Fanshawe College Boulevard
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The Technician Program

The Technician program consists of four academic levels and 2 terms of co-op working in the industry. The program prepares graduates for employment in areas such as numerically controlled machines programming, tool design, production planning, statistical process control, value engineering, advanced machining and maintenance engineering throughout the manufacturing industry. Modern numerically controlled CNC and CAD/CAM equipment is utilized in this program.

Outcomes for Technicians

The graduate technician will have the fundamental skills and knowledge to enable him/her to function as a junior analyst in numerical control programming, tool design, basic production tooling and process planning, manage SPC methods, undertake cost reduction studies, provide value analysis assistance, work on production equipment maintenance methods and many other careers in the manufacturing industry.

Graduates of the two-year Manufacturing Engineering Technician Co-op program may apply for program transfer to Level 5 of the three-year Manufacturing Engineering Technology Co-op program to complete the requirements for that diploma.

The Technology Program

The Technology program provides a broader academic and industrial experience in the more important aspects of manufacturing engineering. As a co-operative program, the student will spend a minimum of 3 terms in a related work experience in the industry. Industrial relations, advanced quality principles and project management are emphasized, since the graduate will need to be 'people oriented', being part of, and leading teams in an industrial setting.

Outcomes for Technologists

Although employment is primarily in the manufacturing industries in such management functions as industrial engineering, plant layout, production planning and control, etc., the fundamentals of the program a graduate to function in many other areas.

Why Should You Hire a Co-op Student?

Many employers feel today's graduates have no concepts of the "real" world of work; we are providing this experience in co-op. Any job that gives the student related background in your business would be suitable.

Co-op students are ultimately looking ahead to careers in businesses such as yours. For this reason they're not expecting to simply put in time on the job, but are eager to get involved and make a worthwhile contribution. Participation in co-op also gives the employer the opportunity to try out a student's capabilities without obligation or commitment to permanent employment.

This work oriented educational system integrates classroom study and paid, on-the-job work experience, by alternating periods in College with periods of employment by co-operating companies.

It is essential that the work experience be a normal one; that the student be treated like a regular company employee so that a realistic picture of the working environment in that field may be obtained. Perhaps most important is what students may gain from the working experience, i.e. what is to be discovered, attitude to work, and the ability to get along with co-workers at all levels.

Course Outline

For the official Degree Audit, please see Registrar's Office

Level 1 – Take all of the following Mandatory Courses

WRIT-1039	Reason & Writing I – Technology
LAWS-1038	Law, Ethics & Occupational H & S
ENGR-1024	Engineering Graphics
MATH-1185	Math 1
MACH-1154	Machining 1
WELD-1054	Welding

Level 2 – Take all of the following Mandatory Courses

PSYC-1027	Human Relations
MACH-3056	Machining 2/ Intro to CNC Processes
MATH-1186	Engineering Fundamentals
MATS-1026	Materials Engineering
ENGR-1025	Engineering Design 1
METH-1044	Quality Assurance 1
COOP-1020	Co-op Ed Employment Prep

Level 3 – Take all of the following Mandatory Courses

Gen Ed – Take a 3 credit Gen. Ed. elective course	
MGMT-1007	Project Management
MECH-1104	Robotics & Automation Fundamentals
ENGR-3015	Engineering Design 2
METH-3023	Quality Assurance 2
ELEC-1127	Electrical Devices & Instrumentation
MACH-3057	CNC Applications & Intro to CAD/CAM

Level 4 – Take all of the following Mandatory Courses

Gen Ed – Take a 3 credit Gen. Ed. elective course	
CADD-3032	CAD/CAM Apps CNC & Auto Processes
ENGR-5012	Engineering Design 3
MECH-3038	Fluid Power/Machine Controls
MGMT-3074	Capstone Project Technician
COMM-3069	Technical Communication for Tech'n
WELD-5007	Manu Processes Adv. /Welding

Level 5- Take all of the following Mandatory Courses

MGMT-3072	Production Planning & Inventory Ctrl
MANF-5003	Automation Programming & Ctrl-Adv.
MGMT-3075	Capstone 1 Manufacturing Technology
COMP-3100	Computer Applications
METH-5019	Quality Assurance 3
METH-3024	Facilities Planning
MANF-5004	Advanced Materials & Processes

Level 6- Take all of the following Mandatory Courses

Gen Ed- Take a 3 credit Gen. Ed. Elective course	
MGMT-5077	Capstone 2 Manufacturing Technology
MECH-3039	Statics & Strengths of Materials
MGMT-3073	Operations Management
ENGR-5013	Applied Engineering Principles
MECH-3018	Quality Systems

Program Requirements:

Take one 3-credit General Education (Gen.Ed.) elective Course

Program Residency

Students must complete a minimum of 20 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program.

September Intake Only			
	Sept-Dec	Jan-Apr	May-Aug
Year 1	Academic Term 1	Academic Term 2	Academic Term 3
Year 2	Work Term 1	Academic Term 4	Work Term 2
Year 3	Academic Term 5	Work Term 3	Academic Term 6

