Fast-track PROGRAMS
Architectural Technology

Program Code: 3125
3135 (co-op)
Program Length: 2 years/4 semesters (3125)
2 years/7 semesters (3135)
Credential: Ontario College Advanced Diploma
Start: Fall
Campus: Centennial Science and Technology Centre
archtech@centennialcollege.ca

Program Overview

Qualified graduates with a Bachelor of Architecture degree gain direct admission into the third semester of the three-year Architectural Technology program and receive their technology diploma in four academic semesters.

Using state-of-the-art computer technology, you will prepare designs, construction drawings and specifications needed to communicate with clients, construction professionals and approval authorities. Student activities include preparing drawings for residential, industrial, commercial and institutional building types. Throughout the duration of the program, you will be introduced to building materials, construction methods, structural design, mechanical and electrical services, building codes, contracts, specifications and the business environment for providing design and construction services.

CO-OP

Academically qualified students enhance their education by working three terms as paid employees in the architectural technology field. This experience puts classroom learning into practice, and provides valuable contacts for future careers.

Centennial’s Architectural Technology program places a strong emphasis on protecting the environment, energy conservation and sustainable design and construction strategies.

The Fast-track program is primarily aimed towards foreign trained professionals seeking knowledge of North American construction practice and language.

Benefits

Career Outlook
Graduates of this program are prepared to work with:

- architects
- architectural technology firms
- engineers
- builders
- contractors
- developers
- construction material manufacturers and suppliers
- municipal building departments.

Program Highlights
Graduates are eligible to join the Association of Architectural Technologists of Ontario (AATO) and the Ontario Association for Applied Architectural Sciences (OAAAS).

Educational Partners
Graduates of this program may qualify for advanced educational programs leading to professional careers through the Royal Architectural Institute of Canada Syllabus.

Admission Requirements
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a Bachelor degree program in architecture.

Non-Academic Requirements
- interview, transcript and résumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

Co-op Requirements
- minimum C grade in COMM-170/171, minimum 2.5 GPA, and minimum 80 per cent of year 1 courses required for COOP-221.
- departmental academic standards for co-op eligibility also apply

Semester Requirements
- minimum 2.0 GPA required for entry into semester 5
- students who have completed all course requirements in semesters 3 & 4 will have all the prerequisite requirements for courses in semesters 5 and 6.

Program Outline

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACHS-204</td>
<td>Construction Health &amp; Safety*</td>
</tr>
<tr>
<td>3</td>
<td>ARBC-205</td>
<td>Builders and Contractors*</td>
</tr>
<tr>
<td>3</td>
<td>ARCH-201</td>
<td>Design and Computer Aided Drafting Project 3*</td>
</tr>
<tr>
<td>3</td>
<td>MATM-202</td>
<td>Materials and Methods 3*</td>
</tr>
<tr>
<td>3</td>
<td>ENVR-203</td>
<td>Environment 3*</td>
</tr>
<tr>
<td>3</td>
<td>COMM-160/161*</td>
<td>College Communications 1* (3125)</td>
</tr>
<tr>
<td>3</td>
<td>COMM-170/171*</td>
<td>College Communications 2* (3135)</td>
</tr>
<tr>
<td>3</td>
<td>GNED-158</td>
<td>History of Western Architecture*</td>
</tr>
<tr>
<td>4</td>
<td>ARBS-222</td>
<td>Building Services 1*</td>
</tr>
<tr>
<td>4</td>
<td>ARCH-221</td>
<td>Design and Computer Aided Drafting Project 4*</td>
</tr>
<tr>
<td>4</td>
<td>ARGR-224</td>
<td>Architectural Graphics*</td>
</tr>
<tr>
<td>4</td>
<td>ARST-305</td>
<td>Structures*</td>
</tr>
<tr>
<td>4</td>
<td>ENVR-223</td>
<td>Environment 4*</td>
</tr>
<tr>
<td>4</td>
<td>GNED-500</td>
<td>Global Citizenship: From Social Analysis to Social Action</td>
</tr>
<tr>
<td>4</td>
<td>COOP-221</td>
<td>Employment Pre-placement (3135)</td>
</tr>
<tr>
<td>5</td>
<td>ARBS-302</td>
<td>Building Services 2</td>
</tr>
<tr>
<td>5</td>
<td>ARBW-307</td>
<td>Business Writing</td>
</tr>
<tr>
<td>5</td>
<td>ARCH-301</td>
<td>Design and CAD Complex Project</td>
</tr>
<tr>
<td>5</td>
<td>ARPM-225</td>
<td>Project Management</td>
</tr>
<tr>
<td>5</td>
<td>ARPT-304</td>
<td>Advanced Presentation Techniques</td>
</tr>
<tr>
<td>5</td>
<td>ARST-306</td>
<td>Advanced Structures</td>
</tr>
<tr>
<td>5</td>
<td>ENVR-303</td>
<td>Environment 5</td>
</tr>
<tr>
<td>5</td>
<td>Co-op Work Term 3 (3135)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>ARBL-324</td>
<td>Building within the Municipality</td>
</tr>
<tr>
<td>6</td>
<td>ARCH-321</td>
<td>Design and CAD Multi-Use Project</td>
</tr>
<tr>
<td>6</td>
<td>ARCL-322</td>
<td>Contracts, Law and Professional Practice &amp; Ethics</td>
</tr>
<tr>
<td>6</td>
<td>ARPE-326</td>
<td>Building Code Sustainable Qualification Preparation</td>
</tr>
<tr>
<td>6</td>
<td>ARSW-325</td>
<td>Specification Writing &amp; Contracts</td>
</tr>
<tr>
<td>6</td>
<td>ENVR-323</td>
<td>Environment 6</td>
</tr>
</tbody>
</table>

*minimum C-grade required for Technologist.

Accreditation Pending

At a Glance

Companies that have hired graduates include:

- Cassidy & Company, Architectural Technologists
- Hunt Design Associates Inc.
- Viljoen Architect Inc.
- Romanov Romanov, Architects
- LaPointe, Architects
Biomedical Engineering Technology

Program Code: 3427
3437 (co-op)
Program Length: 2 years/4 semesters (3427)
2 years/6 semesters (3437)
Credential: Ontario College Advanced Diploma
Start: Fall, Winter
Campus: Centennial Science and Technology Centre
bet@centennialcollege.ca

**Program Overview**

Qualified college or university graduates with the electronics background gain direct admission into this two-year program and receive their technology diploma in four semesters.

In the biomedical equipment industry, engineering and scientific disciplines merge, resulting in innovations that bring progress to the health care system and benefit society as a whole. Firms in this industry must now meet the challenge of providing a wider range of quality products. As a result, there will be a greater need for qualified professionals. Biomedical engineering integrates various principles including electronics, computers, embedded microcontrollers, chemical, biology, medicine, health, and product engineering in the design of medical equipment, rehabilitation and health improvement devices.

In response to this growing demand for technology professionals who understand health-related fields, Centennial College is offering the Biomedical Engineering Technology. The program will prepare you for a challenging career with the latest technology, while continuing to evolve to reflect the ever-growing innovations.

This program provides an optimum balance between theory and hands-on labs with ever present technical problem-solving. You can choose to participate in an optional co-op component where academically-qualified students enhance their education by working three 4-months terms as paid employees in the field. The experience not only allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

**BENEFITS**

**PROGRAM HIGHLIGHTS**

- instruction from biomedical industry professionals
- hands-on experience is gained with a wide range of high-tech equipment
- a strong focus is placed on hands-on labs to enhance classroom learning
- the program is part of an active student chapter of Institute of Electrical and Electronic Engineers (IEEE)
- the program has its own Biomedical Student Club
- the advanced diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning
- opportunity exists for three paid co-op work terms (if in the co-op program)

**EDUCATIONAL PARTNERS**

Qualified graduates may be eligible to participate in an articulated program with selected universities. These partnerships allow graduates to apply academic credit towards further study.

Our partners are:
- Lakehead University, engineering degree
- Cape Breton University, engineering technology degree

**ADMISSION REQUIREMENTS**

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of science and/or engineering.

**NON-ACADEMIC REQUIREMENTS**

- English and/or math skills assessment may be required
- interview with the original transcript and résumé review may be required

For information on the admission process, please see p. 14.

**CO-OP REQUIREMENTS**

- completion of COMM-170/171 with a minimum C grade or the equivalent English assessment result is required for COOP-221

**SEMESTER AND GRADUATION REQUIREMENTS**

- minimum 2.0 GPA required for progression to semesters 5 and 6 and technology graduation

**PROGRAM OUTLINE**

<table>
<thead>
<tr>
<th>Semester 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT-106</td>
<td>Applied Anatomy &amp; Physiology</td>
</tr>
<tr>
<td>BTEC-211</td>
<td>Biomedical Engineering 1</td>
</tr>
<tr>
<td>BTEC-212</td>
<td>Infection Control &amp; Microbiology</td>
</tr>
<tr>
<td>ETEC-201</td>
<td>Electronics 2</td>
</tr>
<tr>
<td>ETEC-204</td>
<td>Electronic Communication Systems</td>
</tr>
<tr>
<td>MLAB-101</td>
<td>Clinical Laboratory Techniques</td>
</tr>
<tr>
<td>COMM-160/161</td>
<td>College Communications 1 (3427)</td>
</tr>
<tr>
<td>COMM-170/171</td>
<td>College Communications 2 (3437)</td>
</tr>
<tr>
<td>COOP-221</td>
<td>Employment Pre-placement (3437)</td>
</tr>
</tbody>
</table>

**Co-op Work Term 1 (3437)**

<table>
<thead>
<tr>
<th>Semester 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC-221</td>
<td>Biomedical Engineering 2</td>
</tr>
<tr>
<td>BTEC-222</td>
<td>Dialysis &amp; Water Treatment</td>
</tr>
<tr>
<td>ETEC-202</td>
<td>Microcontrollers 1</td>
</tr>
<tr>
<td>ETEC-203</td>
<td>Measurement &amp; Instrumentation</td>
</tr>
<tr>
<td>ETEC-221</td>
<td>Electronics 3</td>
</tr>
<tr>
<td>BTEC-225</td>
<td>Project Design Applications</td>
</tr>
</tbody>
</table>

**Co-op Work Term 2 (3437)**

<table>
<thead>
<tr>
<th>Semester 5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC-312</td>
<td>Biomechanics &amp; Rehabilitation Engineering</td>
</tr>
<tr>
<td>BTEC-313</td>
<td>Medical Imaging Systems</td>
</tr>
<tr>
<td>BTEC-314</td>
<td>Photonics Devices &amp; Laser Treatment</td>
</tr>
<tr>
<td>ETEC-306</td>
<td>QA and Project Management</td>
</tr>
<tr>
<td>ETEC-222</td>
<td>Microcontrollers 2</td>
</tr>
<tr>
<td>ETEC-223</td>
<td>Control Systems 1</td>
</tr>
<tr>
<td>ETEC-224</td>
<td>Data Communications &amp; Networks</td>
</tr>
</tbody>
</table>

**Co-op Work Term 3 (3437)**

<table>
<thead>
<tr>
<th>Semester 6</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC-321</td>
<td>Advanced Topics in Biomedical Engineering</td>
</tr>
<tr>
<td>BTEC-325</td>
<td>Computer Integrated Surgery &amp; Telemedicine</td>
</tr>
<tr>
<td>BTEC-327</td>
<td>Biomedical Project</td>
</tr>
<tr>
<td>ETEC-205</td>
<td>RF Transmission &amp; Measurements</td>
</tr>
<tr>
<td>ETEC-324</td>
<td>Wireless Networks &amp; Applications</td>
</tr>
<tr>
<td>GNED-300</td>
<td>Global Citizenship: From Social Analysis to Social Action</td>
</tr>
<tr>
<td>EMPS-101</td>
<td>Employment Skills (3427)</td>
</tr>
</tbody>
</table>

*Note: Students will be placed in the appropriate English and math level based on skills assessment results.*

**At A Glance**

Health care technology professionals work in settings such as:
- hospitals
- medical equipment companies
- pharmaceutical companies
- rehabilitation facilities

Fast-track Programs/135
Biotechnology Technician – Industrial Microbiology

Program Code: 3621
Program Length: 1 year/2 semesters
Credential: Ontario College Diploma
Start: Fall,
Campus: Centennial Science and Technology Centre
bio@centennialcollege.ca

**Program Overview**
Qualified college or university graduates gain direct admission into this nationally-accredited one-year program and receive their technician diploma in two semesters. This program prepares you to work as a bench tech (in quality control/quality assurance) in the food, pharmaceutical and cosmetic industries. We provide thorough practical training in industrial microbiology as well as chemistry – analytical, organic and biochemistry. Laboratory techniques, including appropriate safety procedures, are extensively highlighted. A special feature of the program is our focus on the project approach, with independently designed microbiology projects that enhance your problem-solving and research skills.

You may graduate in one year as a biotechnological technician or continue for a second year to study specialized topics such as advanced biotechnology and microbial genetics or systematic microbiology, graduating as a biotechnology technologist.

You will learn to:
- isolate, enumerate and identify microorganisms from many types of samples (water, soil, air, your body, and food, pharmaceutical and cosmetic products)
- prepare specimens for staining and become an expert light-microscopist
- become proficient in aseptic handling of materials
- accurately calibrate and use a range of instruments such as pH and BOD meters, Gas Chromatographs, spectrophotometers (regular/IR/UV), HPLC’s etc.
- prepare microbiological media and reagents; culture pathogenic microbes; and design and perform your own microbiology experiments
- use microorganisms to assay pharmaceutical products and much, much more.

**Awards**
The Biotechnology Technician program is a repeat recipient of the Centennial College President’s Academic Program Recognition Award for outstanding student satisfaction.

**Program Highlights**
- national accreditation improves the mobility of graduates anywhere in Canada and abroad
- graduates may apply for certification through OACETT (Ontario Association of Certified Engineering Technicians and Technologists) to use the following professional designation: CTech (Certified Technician)
- we are the only Industrial Microbiology program in Ontario
- eight up-to-date laboratories and modern wireless lecture facilities
- thorough laboratory training, starting from the basics up to professional skills
- theory is combined with on-going laboratory work
- high program graduation rate and student satisfaction
- training in Occupational Health and Safety, WHMIS, GMP, HACCP – to industry standards
- qualified and caring faculty and staff provide individual attention in laboratories
- teamwork skills encouraged and developed
- qualified graduates may apply to enter the third year of the Biotechnology Technician program

**CTAB Nationally Accredited Program**
The Biotechnology Technician – Industrial Microbiology program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

**Recognition as a Certified Engineering Technician/Technologist**
OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Biotechnology Technician – Industrial Microbiology program as meeting all the academic requirements for certification in the Technician category.

**Admission Requirements**
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in related chemistry/biology or engineering area. Possessing the minimum requirements does not ensure admission to the program.

**Non-Academic Requirements**
- transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

**Program Outline**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 3</td>
<td>Bi-207</td>
</tr>
<tr>
<td></td>
<td>Bi-208</td>
</tr>
<tr>
<td></td>
<td>CH-121</td>
</tr>
<tr>
<td></td>
<td>CH-207</td>
</tr>
<tr>
<td></td>
<td>ENGL-250</td>
</tr>
<tr>
<td></td>
<td>COMM-170/171</td>
</tr>
<tr>
<td>Semester 4</td>
<td>Bi-206</td>
</tr>
<tr>
<td></td>
<td>Bi-209</td>
</tr>
<tr>
<td></td>
<td>CH-203</td>
</tr>
<tr>
<td></td>
<td>CH-222</td>
</tr>
<tr>
<td></td>
<td>GNED-500</td>
</tr>
</tbody>
</table>

Note: Students will be required to take a microbiology laboratory preparation/college orientation course offered before semester 3 to prepare for semester 3.

**At A Glance**
- national accreditation supports program quality and provides mobility for graduates
- program length provides timely access to job market
Biotechnology Technologist – Industrial Microbiology

Program Code: 3622
3632 (co-op)
Program Length: 2 years/4 semesters (3622)
3 years/7 semesters (3632)
Credential: Ontario College Advanced Diploma
Start: Fall,
Campus: Centennial Science and Technology Centre
bio@centennialcollege.ca

Program Overview

Qualified college or university graduates gain direct admission into this two-year program, and receive their technologist diploma in four semesters.

Learn scientific principles, techniques and skills to work in industrial microbiology. Specialized study is also included in biotechnology applications, biochemistry, microbial genetics, clinical and environmental microbiology.

Combine theory and technical practice with many opportunities to enhance experience. Project work, in consultation with faculty, helps you develop skills in research, laboratory techniques, report writing and presentation.

You will learn to:

• isolate, enumerate and identify microorganisms from many types of samples (water, soil, air, your body, and food, pharmaceutical and cosmetic products)
• perfect your aseptic techniques
• accurately calibrate and use a range of instruments such as pH and BOD meters, Gas Chromatographs, spectrophotometers (regular/IR/UV), HPLC’s, centrifuges, PCR thermocyclers, Gel electrophoresis equipment etc.
• prepare microbiological media and reagents; culture pathogenic microbes; and design and perform advanced microbiology and microbial genetics experiments
• use microorganisms to assay pharmaceutical products
• isolate DNA ; perform gel electrophoresis and PCR (polymerase chain reaction) on samples

CO-OP

This program offers an optional co-op component. Academically-qualified students enhance their education by working two to three terms as paid employees in their field. The experience not only allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

BENEFITS

CAREER OUTLOOK

Besides laboratory work, graduates may choose to use their knowledge in product development, production and sales. The organizations our graduates work for include:

• Hermann Laue Spice Company
• Apotex Inc.
• Agropur – Division Natrel
• MAXXAM Analytics
• bioMerieux Canada Inc.
• Griffiths laboratories
• Cosmetica laboratories Inc.

PROGRAM HIGHLIGHTS

• national accreditation improves the mobility of graduates anywhere in Canada and abroad
• apply for certification through OACETT (Ontario Association of Certified Engineering Technicians and Technologists) to use one of the following professional designations CET (Certified Engineering Technologist) or AScT (Applied Science Technologist)
• standard and specialized equipment (e.g. autoclaves, incubators, PCR thermocyclers and gel electrophoresis equipment)
• eight ultra-modern labs and lecture facilities
• complete a three-year program in two years (plus time spent in co-op placements)

DEGREE COMPLETION

• qualified graduates are granted access the Honours BSc programs at the University of Toronto - Scarborough or Ryerson University with pre-arranged transfer credits.
• qualified graduates are also eligible for direct entry into local Ontario and other provincial university degree programs. Contact us for the most recent agreements.

CTAB NATIONALLY ACCREDITED PROGRAM

The Biotechnology Technologist – Industrial Microbiology program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Biotechnology Technologist – Industrial Microbiology program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in related chemistry/biology or engineering area.

NON-ACADEMIC REQUIREMENTS

• transcript and resumé review may be required
• English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

Notes:
1. Because admission numbers are limited, possessing the minimum requirements does not ensure admission to the program.
2. Students will be required to take a microbiology laboratory preparation/college orientation course offered before semester 3 to prepare

CO-OP REQUIREMENTS

• minimum 2.5 GPA and a C grade in COMM-170/171 is required to qualify for COOP-221 and subsequent co-op work-placements
• departmental academic standards for co-op eligibility also apply

PROGRAM OUTLINE

Semester 3
BI-207 Microbiology Project 1 *
BI-208 Food Microbiology *
CH-121 Organic Chemistry *
CH-207 Analytical Chemistry *
ENGL-250 Communication For Technology
COMM-170/171 College Communications 2

Semester 4
BI-206 Microbiology Project 2 *
BI-209 Pharmaceutical Microbiology *
CH-203 Food Chemistry *
CH-222 Biochemistry 1 *
GNED-500 Global Citizenship: From Social Analysis to Social Action
COOP-221 Employment Preplacement (3632)

Co-op Work Term 1 (3632)
Co-op Work Term 2 (3632)

Semester 5
BI-302 Microbial Genetics
BI-303 Microbiology Project 3
BI-312 Applications of Biotechnology
CH-302 Biochemistry 2

Co-op Work Term 3 (3632)

Semester 6
BI-304 Environmental Microbiology
BI-305 Advanced Biotechnology
BI-307 Microbiology Project 4
BI-308 Systematic Microbiology

*minimum C-grade required for entry into semester 5.
Business Administration – Accounting (Fast-track)

Program Code: 2435
2445
Program Length: 3 semesters (2435)
8 months/2 semesters (2445)
Credential: Ontario College Advanced Diploma
Start: Winter, Summer (2435)
Fall (2445)
Campus: Progress
416-289-5000 ext. 2280
business@centennialcollege.ca

Program Overview

Qualified college or university graduates gain direct admission into the three-year Accounting program (2405) at an advanced level. Graduates of accounting and/or finance programs may receive a block transfer credit for four semesters of the program, leaving only two semesters of study before graduation.

Through a very concentrated program of study, graduates acquire a sound knowledge of managerial and financial accounting, taxation, accounting systems and strong skills in the use of accounting software.

These Fast-track programs will provide the qualified applicant full value for previous studies and eliminate the administrative activities related to individual transfer credits.

They are unique programs designed specifically for applicants with existing academic credentials, both foreign and domestic. If you want maximum recognition for studies already completed and a rewarding career in accounting, please give these programs your consideration.

Benefits

Program Highlights
- Qualified college or university graduates gain direct admission into the three-year Accounting program (program code 2405) at an advanced level.
- The Fast-track option minimizes the time that is required to complete the three-year accounting non co-op program (#2405)
- Recognition for previous studies is maximized.
- Hands-on experience with industry standard accounting software is provided.
- The program provides rigorous study of financial and managerial accounting.

The program prepares students with the necessary skills required for success in the business world. Graduates of the program are well positioned for various accounting careers in the public, private and/or non-profit sector of the economy.

EduCational Partners
Qualified graduates may be eligible to participate in an articulated program with selected universities, institutes and professional associations. These partnerships allow qualified graduates to apply academic credit towards further study.

Our educational partners include:
- Certified General Accountants Association of Ontario

Career Outlook
Graduates are prepared for careers in:
- Manufacturing organizations
- Merchandising organizations
- Service organizations
- The public, private and non-profit sectors of the Canadian economy

Admission Requirements
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in Accounting. (2445)

Applicants to fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. (2435)

Non-academic Requirements
- Transcript and resume review may be required.
- English and/or math skills assessment may be required.

For information on the admission process, please see p. 14.

Graduation Requirements
- Minimum C grade average is required for graduation with an overall minimum GPA of 2.0.

Recommendation
- For those students interested in pursuing the CGA designation, we recommend that you take Program 2405 or 2415 instead of the Fast track program. Program 2405 or 2415 will provide you with maximum CGA transfer credit opportunities.

Notes: Students will be placed in the appropriate English and math levels based on skills assessment results. This may lead to additional courses and require extra time and fees.

Winter intake students take the summer off (2435)

Program Outline (2435)

Semester 1
- ACCT-112 Financial Accounting 1
- ACCT-222 Management Accounting 1
- ACCT-224 Corporate Finance 1
- COMP-162 Microcomputer Applications Software 2
- COMM-170/171 College Communications 2

Semester 2
- ACCT-222 Management Accounting 1
- ACCT-228 Accounting Microcomputer Applications 1
- ACCT-255 Intermediate Accounting 1
- ACCT-265 Intermediate Accounting 2
- BUSN-333 Business Communications

Semester 3
- ACCT-226 Taxation 1
- ACCT-257 Accounting Information Systems
- ACCT-322 Management Accounting 2
- ACCT-355 Intermediate Accounting 3
- ACCT-358 Accounting Microcomputer Applications 2

Program Outline (2445)

Semester 1
- ACCT-222 Management Accounting 1
- ACCT-228 Accounting Microcomputer Applications 1
- ACCT-255 Intermediate Accounting 1
- ACCT-265 Intermediate Accounting 2
- COMP-126 Microcomputer Applications Software 2
- COMM-170/171 College Communications 2

Semester 2
- ACCT-226 Taxation 1
- ACCT-257 Accounting Information Systems
- ACCT-322 Management Accounting 2
- ACCT-355 Intermediate Accounting 3
- ACCT-358 Accounting Microcomputer Applications 2
- BUSN-333 Business Communications

Notes: Students will be placed in the appropriate English and math levels based on skills assessment results. This may lead to additional courses and require extra time and fees.

Winter intake students take the summer off (2435)
Computer Engineering Technician – Embedded Networks

**Program Code:** 3126  
**Program Length:** 1 year/2 semesters  
**Credential:** Ontario College diploma  
**Start:** Fall, Winter  
**Campus:** Centennial Science and Technology Centre  
**Email:** cet@centennialcollege.ca

### Program Overview

Qualified college or university graduates gain direct admission into this eight-month program and receive their technician diploma in two semesters.

The Fast-track Computer Engineering Technician program will prepare you for a challenging career with the latest in computer engineering and networks technology. The program will evolve during your enrolment to reflect the ever-growing innovations of the Internet embedded revolution. Embedded interfaces and protocols are typically found in automobiles, airplanes, appliances, factory floor, home automation, security systems, traffic light controls, city lighting systems, and other applications with sensors and actuators.

This eight-month program will prepare you for a variety of full-time jobs in the computer industry, including product development, manufacturing, service and technical sales. You will obtain an in-depth education in microcontroller programming and interfacing with Motorola 68HC11. You will be able to assist in troubleshooting, repairing, testing, measuring and documenting a variety of computer based control systems and subsystems.

This program also provides an optimum balance between theory and hands-on labs and technical problem-solving.

### BENEFITS

**CAREER OUTLOOK**

Organizations hiring graduates of the School of Technology Engineering and Applied Science include:

- MSC Electronics
- Optyc
- Solectron
- Telesat
- ViDix Technology Corp.

**PROGRAM HIGHLIGHTS**

- you will complete a two-year program in eight months
- opportunity exists to work with a wide range of high-tech equipment
- a strong focus is placed on hands-on labs to enhance classroom learning
- there is an active student chapter of Institute of Electrical and Electronic Engineers (IEEE)
- the diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning.

### ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of science and/or engineering.

### NON-ACADEMIC REQUIREMENTS

- Interview, transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

### PROGRAM OUTLINE

**Semester 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNET-224</td>
<td>Data Communications</td>
</tr>
<tr>
<td>CTEC-208</td>
<td>C/C++ Programming</td>
</tr>
<tr>
<td>CTEC-211</td>
<td>Computer Architecture</td>
</tr>
<tr>
<td>CTEC-212</td>
<td>Database Introduction</td>
</tr>
<tr>
<td>CTEC-213</td>
<td>Operating Systems with Linux</td>
</tr>
<tr>
<td>ETEC-202</td>
<td>Microcontrollers 1</td>
</tr>
<tr>
<td>ETEC-203</td>
<td>Measurement &amp; Instrumentation</td>
</tr>
<tr>
<td>COMM-160/161</td>
<td>College Communications 1</td>
</tr>
</tbody>
</table>

**Semester 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTEC-221</td>
<td>Computer Engineering Electronics</td>
</tr>
<tr>
<td>CTEC-222</td>
<td>Control Networks</td>
</tr>
<tr>
<td>ETEC-222</td>
<td>Microcontrollers 2</td>
</tr>
<tr>
<td>ETEC-225</td>
<td>Quality Control &amp; Tech Project</td>
</tr>
<tr>
<td>GNED-500</td>
<td>Global Citizenship: From Social Analysis to Social Action</td>
</tr>
<tr>
<td>EMPS-101</td>
<td>Employment Skills 1</td>
</tr>
</tbody>
</table>

### At A Glance

Organizations hiring graduates of the School of Technology Engineering and Applied Science include:

- Research In Motion (RIM)
- Air Canada Simulation
- Celestica
- Enbridge Consumers Gas
- Toronto Hydro
- General Electric
- Leitch
Computer Engineering Technology – Embedded Networks

Program Overview

Qualified college or university graduates with a background in electronics gain direct admission into this three-year program and receive their technology diploma in four semesters.

The Fast-track Computer Engineering Technology program prepares graduates for a variety of full-time jobs in the computer industry. The program will evolve during your enrolment to reflect the ever-growing innovations of the Internet embedded revolution. Internet embedded computer interfaces and protocols are typically found in automobiles, airplanes, appliances, city lighting systems, and other applications with sensors and actuators.

You will obtain an in-depth education in microcontroller programming and interfacing (with different chips like Motorola, PIC and Atmel), real-time operating system, system-on-chip using Xilinx, digital signal processing, wireless networks, data communications, database, quality assurance and industrial controls.

This program also offers theory and hands-on labs, including technical problem-solving. Another way to gain hands-on experience is through an optional co-op component. Academically-qualified students enhance their education by working three terms as paid employees in their field. The average co-op salary is $451 per week. This experience allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

You can graduate as a technician after the first year, or continue in this two-year technology program.

BENEFITS

CAREER OUTLOOK
Companies that have hired graduates of the School of Engineering Technology and Applied Science include:
- Leitch
- MSC Electronics
- Optys
- Solectron
- Telesat
- ViDiX Technology Corp.

PROGRAM HIGHLIGHTS
- you will complete a three-year program in two years (including time spent in co-op work terms)
- in 2007, 227 satisfied employers offered 718 work terms to Centennial co-op students, who participated in three paid co-op work terms
- hands-on experience will provide a wide range of high-tech equipment
- a strong focus is placed on hands-on labs to enhance classroom learning
- there is an active student chapter of Institute of Electrical and Electronic Engineers (IEEE)
- the advanced diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning

EDUCATIONAL PARTNERS
Qualified graduates may be eligible to participate in an articulated program with selected universities. These partnerships allow graduates to apply academic credit towards further study.

Our partners are:
- Lakehead University, engineering degree
- Cape Breton University, engineering technology degree

ADMISSION REQUIREMENTS
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of science and/or engineering.

NON-ACADEMIC REQUIREMENTS
- interview, transcript and resume review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

CO-OP REQUIREMENTS
- completion of COMM-170/171 with a minimum C grade or the equivalent English assessment result is required for COOP-221

SEMESTER AND GRADUATION REQUIREMENTS
- minimum 2.0 GPA required for progression to semesters 5 and 6 and technology graduation

PROGRAM OUTLINE

Semester 3
- CNET-224 Data Communications
- CTEC-208 C/C++ Programming
- CTEC-211 Computer Architecture
- CTEC-212 Database Introduction
- CTEC-213 Operating Systems with Linux
- ETEC-202 Microcontrollers 1
- ETEC-203 Measurement & Instrumentation
- COMM-160/161 College Communications 1 (3127)
- COMM-170/171 College Communications 2 (3137)
- COOP-221 Employment Pre-placement (3137)

Semester 4
- CTEC-221 Computer Engineering Electronics
- CTEC-222 Control Networks
- ETEC-222 Microcontrollers 2
- ETEC-225 Quality Control & Tech Project
- MATH-285 Calculus
- GNED-500 Global Citizenship: From Social Analysis to Social Action

Semester 5
- CNET-201 Network Devices
- CNET-304 Wireless Technology
- CTEC-228 Object-Oriented Programming
- CTEC-311 Computer Interfacing
- CTEC-312 Computer Control Systems
- CTEC-313 Real Time Operating Systems

Semester 6
- CNET-301 Network Design & Test
- CNET-324 Wireless Networks
- CTEC-321 System-on-Chip
- CTEC-322 Digital Signal Processing
- CTEC-323 Database Management
- CTEC-326 Computer Engineering Project
- ETEC-322 Embedded Systems
- EMP5-101 Employment Skills (3127)

Note: Students will be placed in the appropriate English and math level based on skills assessment results.

At A Glance

Companies that have hired graduates of the School of Engineering Technology and Applied Science include:
- Research In Motion (RIM)
- Air Canada Simulation
- Celestica
- Enbridge Consumers Gas
- Toronto Hydro
- General Electric
Program Overview

Qualified college or university graduates in relevant programs gain direct admission into this eight-month program and receive their technician diploma in two semesters.

The Fast-track Computer Systems Technician – Networking program has been completely redesigned to prepare you for a challenging career in the computer industry. You will develop technical expertise in areas such as multi-vendor operating systems, wireless communications, data communications, networking, network security, network service and support, customer skills and communications for technology. You will work with state-of-the-art testing and measurement equipment in purpose-built labs, developing a solid foundation in network design and testing. The program has an optimum balance between hands-on experience and theory.

BENEFITS

PROGRAM HIGHLIGHTS

• you will complete a two-year program in eight months
• modern labs and lecture facilities are housed at the Centennial Science and Technology Centre Campus
• theory is reinforced by laboratory work
• this program is an active Student Branch of the Institute of Electrical and Electronics Engineers
• the diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning
• the program attracts university graduates from around the world
• graduates may become members of a multidisciplinary group involved in equipment manufacturing or installation, research and testing, equipment maintenance and repair, and sales.

CTAB NATIONALY ACCREDITED PROGRAM

The Computer Systems and Networks Technician program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Computer Systems and Technician – Networking program as meeting all the academic requirements for certification in the Technician category.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in science and/or engineering. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of computer networks.

NON-ACADEMIC REQUIREMENTS

• interview, transcript and resumé review may be required
• English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

PROGRAM OUTLINE

Semester 3

CNET-124 Network Technologies
CNET-201 Network Devices
CNET-222 Network Services
CNET-225 Introduction to Telephony
MATH-269 Mathematics for Computer Systems 3
COMM-160/161 College Communication 1
ENGL-295 Communication Skills
GNED-500 Global Citizenship: From Social Analysis to Social Action

Semester 4

CNET-221 Network Security
CNET-223 Network Support
CNET-224 Data Communications
CNET-229 Introduction to Business and ICT
CNET-311 Routing and Switching
CNET-227 Technician Project
GNED-212 Ethics in Technology and the Environment

At A Glance

Companies that have hired graduates of this program include:

• AIM Funds Management Inc.
• Canada Life
• Celestica
• CIBC Mellon Trust
• Enbridge Consumers Gas
• StorageTek
• Toronto Hydro
• Transport Canada

Graduates are prepared to work in fields such as:

• telecommunications
• network administration
• network support
• help desk support
• technical support
Computer Systems Technology – Networking

Program Code: 3425
3435 (co-op)
Program Length: 2 years/4 semesters (3425)
2 years/7 semesters (3435)
Credential: Ontario College Advanced Diploma
Start: Fall, Winter
Campus: Centennial Science and Technology Centre
csnt@centennialcollege.ca

Program Overview

Qualified college or university graduates in relevant programs gain direct admission into this three-year program and receive their technology diploma in four semesters. The Fast-track Computer Systems Technology – Networking program has been completely redesigned to prepare you for a challenging career in the computer industry. You will develop technical expertise in areas such as wireless communications, data communications, networking, VoIP network security, and network management. You will work with state-of-the-art testing and measurement equipment in purpose built labs, developing a solid foundation in network design and test, as well as project management. The program has an optimum balance between hands-on experience and theory.

A co-op component is also offered. Academically-qualified students enhance their education by working three terms as paid employees in the field. The experience not only allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

BENEFITS

PROGRAM HIGHLIGHTS

• you will complete a three-year program in two years
• modern labs and lecture facilities are housed at the Centennial Science and Technology Centre Campus
• theory is reinforced by laboratory work
• the program is part of an active student branch of the Institute of Electrical and Electronics Engineers
• the diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning
• the program attracts university graduates from around the world

• graduates may become members of a multidisciplinary group involved in equipment manufacturing or installation, research and testing, equipment maintenance and repair, and sales

CTAB NATIONALY ACCREDITED PROGRAM

The Computer Systems and Networks Technology program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Computer Systems Technology – Networking program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in science and/or engineering. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of computer networks.

NON-ACADEMIC REQUIREMENTS

• interview, transcript and resume review may be required
• English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

CO-OP REQUIREMENTS

• completion of COMM-170/171 with a minimum C grade or appropriate English assessment result before entering semester 3 to qualify for COOP-221

SEMMESTER AND GRADUATION REQUIREMENTS

• minimum 2.0 GPA required for progression to Technology semesters 5 and 6 and graduation

PROGRAM OUTLINE

Semester 3
CNET-124 Network Technologies
CNET-201 Network Devices
CNET-222 Network Services
CNET-225 Introduction to Telephony
MATH-269 Mathematics for Computer Systems 3
COMM-160/161 College Communications 1 (3425)
COMM-170/171 College Communications 2 (3435)
ENGL-295 Communication Skills
GNED-500 Global Citizenship: From Social Analysis to Social Action
COOP-221 Employment Preplacement (3435)

Co-op Work Term 1 (3435)
Semester 4
CNET-221 Network Security
CNET-223 Network Support
CNET-224 Data Communications
CNET-229 Introduction to Business and ICT
CNET-232 Introduction to Programming
CNET-311 Routing and Switching
GNED-212 Ethics in Technology and the Environment

Co-op Work Term 2 (3435)
Semester 5
CNET-231 WAN Technologies
CNET-301 Network Design & Test
CNET-304 Wireless Technology
CNET-305 Voice & Video Over IP
CNET-306 Unix/Linux
CNET-307 IT Project Management

Co-op Work Term 3 (3435)
Semester 6
CNET-320 Data Center
CNET-321 Network Management
CNET-323 Relational Database Management
CNET-324 Wireless Networks
CNET-327 Technologist Project
CNET-328 Internetwork Troubleshooting
CNET-329 Business and ICT

At A Glance

Companies that have hired graduates of this program include:

• AIM Funds Management Inc.
• Canada Life
• Celestica
• CIBC Mellon Trust
• Enbridge Consumers Gas
• StorageTek
• Toronto Hydro
• Transport Canada

Graduates of this program are prepared to work in the fields of:

• telecommunications
• network administration
• network support
• help desk support
• LAN Support
• LAN Administrator

142 /Fast-track Programs
Electro-Mechanical Engineering Technician – Automation and Robotics

Program Code: 4125
Program Length: 1 year/3 semesters or 1-1/3 years/3 semesters
Credential: Ontario College Diploma
Start: Winter, Summer
Campus: Progress
automation@centennialcollege.ca

CTAB NATIONALLY ACCREDITED PROGRAM
The Electro-Mechanical Engineering Technician/ Technology – Automation and Robotics programs have met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, have received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST
The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Electro-Mechanical Engineering Technician/Technology – Automation and Robotics programs as meeting all the academic requirements for certification in the respective Technician/Technology categories.

ADMISSION REQUIREMENTS
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in related electrical or mechanical engineering area.

NON-ACADEMIC REQUIREMENTS
• interview, transcript and résumé review may be required
• English and/or math skills assessment may be required
For information on the admission process, please see p. 14.

NOTES
* Students who have graduated from a college or university electrical/electronics program may be credited for these courses.
** Students who have graduated from a college or university mechanical program may be credited for these courses.

1. Additional courses MATH-231 (Differential Calculus with Analytic Geometry) and MATH-232 (Integral Calculus) may be required for students who wish to transfer from the technician to the technology program. Both math courses should be completed prior to semester 5. As for the C grade requirement, please see the 4106/4116 Technology program descriptions.
2. Please refer to program model route for course prerequisite.

At A Glance
Graduates are prepared to work in:
• industrial sales
• service sales
• manufacturing
• machine integrators
Electro-Mechanical Engineering Technology – Automation and Robotics

Program Code: 4126
4136 (PTY)

Program Length: 2 years/5 semesters or 2-1/3 years/5 semesters (4126)
2 years/5 semesters or 2-1/3 years/5 semesters plus 1 year PTY (4136)

Credential: Ontario College Advanced Diploma

Start: Winter, Summer
Campus: Progress
automation@centennialcollege.ca

Program Overview

Qualified college or university graduates of electrical or mechanical engineering programs gain direct admission into this three-year program.

For students starting in the summer, the technology diploma may be obtained in 24 months (five semesters and one summer vacation). For students starting in the winter, the technology diploma may be obtained in 28 months (five semesters and two summer vacations).

For PTY students starting in the summer, the technology diploma may be obtained in 36 months (five semesters and one summer vacation, plus 12 month PTY). For students starting in the winter, the technology diploma may be obtained in 40 months (five semesters and two summer vacations plus 12 months PTY).

This well-recognized program teaches advanced electromechanical technology used in designing, building and operating automated industrial systems: advanced Programmable Logic Controller (PLC), robotics, electronics, servo systems, hydraulics and pneumatics. Courses will provide a thorough understanding of theory, along with practical, hands-on laboratory experience.

1 Professional Technology Year

BENEFITS

PROGRAM HIGHLIGHTS

- Centennial College’s Automation and Robotics diploma is well recognized in Canada
- Centennial College is the first Fluid Power training centre in Canada and is recognized by the U.S.-based Fluid Power Education Foundation
- real time industrial application studies with industrial production equipment are provided
- there is a strong Automation and Robotics Student Society
- the option exists for a paid one-year work term
- you will complete a three-year program in 2 years or 2-1/3 years depending on whether you start in the summer or winter.

CTAB NATIONALLY ACCREDITED PROGRAM

For information on this accreditation, please see page 143.

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

For information on this accreditation, please see page 143.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in a related electrical or mechanical engineering area.

NON-ACADEMIC REQUIREMENTS

- interview, transcript and résumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

CO-OP REQUIREMENTS

- minimum C grade in COMM-170/171, minimum 2.5 GPA and minimum 80 per cent of year 1 and 2 courses required for COOP-221

PROGRAM OUTLINE

Semester 2
ROBO-115 Computer Aided Drafting
ROBO-121 Hydraulic Systems 1*
ROBO-122 Pneumatic Components*
ROBO-123 Statics **
ROBO-234 Electronic Devices**
COMM-170/171 College Communications 2*

Semester 3
ROBO-124 Digital Electronics**
ROBO-231 Hydraulic Systems 2*
ROBO-232 Pneumatic Circuits*
ROBO-237 Robotic Devices*
ROBO-240 Mechanics and Materials**
GNED-500 Global Citizenship: From Social Analysis to Social Action

Semester 4
MT-120 Machine Shop
ROBO-241 Hydraulic Systems 3*
ROBO-242 PLC/Pneumatic Interfacing*
ROBO-247 Robotic Applications
GNED-212 Ethics in Technology and the Environment

Semester 5
ROBO-350 Fluid Mechanics and Dynamics
ROBO-351 Hydrostatic Systems and Design
ROBO-352 PLC/Pneumatic Systems 1
ROBO-354 Electric Machinery & Microcontrollers
ROBO-356 Design & Development Project I
GNED General Education Elective
COOP-221 Employment Preplacement (4136)

PROFESSIONAL TECHNOLOGY YEAR (4126)

Semester 6
ROBO-361 Electro-hydraulic Systems
ROBO-362 PLC/Pneumatic Systems 2
ROBO-363 Diagnostics and Maintenance
ROBO-364 Feedback Control
ROBO-366 Design & Development Project II
ROBO-367 Industrial Production Applications

Flow chart for the A&R “Fast-track” programs (Summer and Winter intakes for programs 4125, 4126, and 4136)

At A Glance

Graduates are prepared for work in the manufacturing sector of fields such as:

- automotive, aircraft
- telecommunications
- plastics
- construction
- consumer goods
- movies and entertainment

Legend

Fall = Start September
Winter = Start January
Summer = Start May
S1, S2 = Semester 1, Semester 2, etc.
PTY = Professional Technology Year
(24-12 months PTY work term)

Notes:

* Students who have graduated from a college or university electrical/electronics program may be credited for these courses.
** Students who have graduated from a college or university mechanical program may be credited for these courses.
*** Minimum C-grade is required for Technologist graduation 1. Please refer to program model route for course prerequisite.
Electronics Engineering Technician

Program Code: 3221
Program Length: 1 year/2 semesters
Credential: Ontario College Diploma
Start: Fall, Winter
Campus: Centennial Science and Technology Centre
elec@centennialcollege.ca

Program Overview
Qualified college or university graduates will gain direct admission into this two-year program and receive their technician diploma in two semesters.

The Fast-track Electronics Engineering Technician program has been completely redesigned to prepare you for a challenging career in the field of electronics. You will develop technical expertise in areas such as wireless communications, data communications, microcontrollers, and industrial systems. You will work with computers, communication transceivers, and electronics testing and measurement equipment, while developing a solid foundation in modern electronics. The program provides an optimum balance between hands-on experience and theory.

BENEFITS

CAREER OUTLOOK
Graduates of this program are hired in many fields, including:
- telecommunications
- computer applications
- control systems
- radio and television equipment
- audio-visual equipment
- multidisciplinary groups involved in equipment manufacturing or installation, research and testing, equipment maintenance and repair, and sales.

PROGRAM HIGHLIGHTS
- you will complete a two-year program in eight months
- learning is done in modern labs and lecture facilities at the Centennial Science and Technology Centre Campus
- theory is reinforced by laboratory work
- the program is an active student chapter of Institute of Electrical and Electronic Engineers, the diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning
- graduates may become members of a multidisciplinary group involved in equipment manufacturing or installation, research and testing, equipment maintenance and repair, and sales

CTAB NATIONALLY ACCREDITED PROGRAM
The Electronics Engineering Technician program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST
The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Electronics Engineering Technician program as meeting all the academic requirements for certification in the Technician category.

ADMISSION REQUIREMENTS
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of science and/or engineering.

NON-ACADEMIC REQUIREMENTS
- interview, transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

PROGRAM OUTLINE

Semester 3
ECTC-101 Electronics Shop Practices
ECTC-202 Microcontrollers 1
ECTC-203 Measurement & Instrumentation
ECTC-204 Electronic Communication Systems
ECTC-205 RF Transmission & Measurements
COMM-160/161 College Communications 1
GNEC-500 Global Citizenship: From Social Analysis to Social Action

Semester 4
ECTC-221 Electronics 3
ECTC-222 Microcontrollers 2
ECTC-223 Control Systems 1
ECTC-224 Data Communications & Networks
ECTC-225 Quality Control & Tech Project
EMPS-101 Employment Skills 1
GNEC-212 Ethics in Technology and the Environment
Electronics Engineering Technology

Program Code: 3222
3232 (co-op)
Program Length: 15 months continuous or
2 years/4 semesters (3222)
2 years/7 semesters (3232)
Credential: Ontario College Advanced Diploma
Start: Fall, Winter
Campus: Centennial Science and Technology Centre
elec@centennialcollege.ca

Program Overview

Qualified college or university graduates gain direct admission into this three-year program and receive their technology diploma in four semesters.

The Fast-track Electronics Engineering Technology program has been completely redesigned to prepare you for a challenging career in the electronics field. You will develop technical expertise in areas such as wireless communications, data communications, microcontrollers, and industrial systems. You will work with computers, communication transceivers, and electronics testing and measurement equipment, while developing a solid foundation in modern electronics. The program has an optimum balance between hands-on experience and theory.

This program offers an optional co-op component. Academically-qualified students enhance their education by working three terms as paid employees in their field. This experience not only allows them to put classroom learning into practice, but also provides valuable contacts for future careers.

At A Glance

Graduates of this program find careers in many fields, including:
- telecommunications
- computer applications
- control systems
- radio and television equipment
- audio-visual equipment

BENEFITS

PROGRAM HIGHLIGHTS
- the electronics program co-op students average salary is over $500 per week
- modern labs and lecture facilities at the Centennial Science and Technology Centre Campus create a healthy learning environment
- theory is reinforced by laboratory work
- the program is an active Student Branch of the Institute of Electrical and Electronics Engineers
- the diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning
- the program attracts university grads from around the world
- graduates may become members of a multidisciplinary group involved in equipment manufacturing or installation, research and testing, equipment maintenance and repair, and sales

EDUCATIONAL PARTNERS

Qualified graduates may be eligible to participate in an articulated program with selected universities, institutes and professional associations. These partnerships allow graduates to apply academic credit towards further study.

Our partners are:
- Athabasca University, science degree
- Cape Breton University, engineering technology degree
- Lakehead University, engineering degree

CTAB NATIONALLY ACCREDITED PROGRAM

The Electronics Engineering Technology program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Electronics Engineering Technology program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will consider applicants presenting a combination of post-secondary education and relevant work experience in areas of science and/or engineering.

NON-ACADEMIC REQUIREMENTS
- interview, transcript and résumé review may be required
- English and/or math skills assessment may be required
For information on the admission process, please see p. 14.

CO-OP REQUIREMENTS
- completion of COMM-170/171 with a minimum C grade or appropriate English assessment result before entering semester 3 to qualify for COOP-221

SEMESTER AND GRADUATION REQUIREMENTS
- minimum 2.0 GPA required for progression to Technology semesters 5 and 6 and Technology graduation
- students who have completed all courses in semester 4 will have all the prerequisite requirements for courses in semester 5 and 6 except the Technical Project course

PROGRAM OUTLINE

Semester 3
ETEC-101 Electronics Shop Practices
ETEC-202 Microcontrollers 1
ETEC-203 Measurement & Instrumentation
ETEC-204 Electronic Communication Systems
ETEC-205 RF Transmission & Measurements
COMM-160/161 College Communication 1 (3222)
COMM-170/171 College Communication 2 (3232)
GNED-500 Global Citizenship: From Social Analysis to Social Action (3222)
COOP-221 Employment Preplacement (3232)
Co-op Work Term 1 (3232)
Semester 4
ETEC-221 Electronics 3
ETEC-222 Microcontrollers 2
ETEC-223 Control Systems 1
ETEC-224 Data Communications & Networks
MATH-285 Calculus (Ty only)
GNED-212 Ethics in Technology and the Environment (3232)
GNED-500 Global Citizenship: From Social Analysis to Social Action (3232)
COOP-221 Employment Skills (3222)
Co-op Work Term 2 (3232)
Semester 5
ETEC-301 Electronic Systems Analysis
ETEC-302 Data Acquisition & Interfacing
ETEC-303 Computer Supported Design
ETEC-304 Advanced Communication Systems
ETEC-305 Digital Communications
ETEC-306 QA and Project Management
PHYS-307 Physics for Electronics (3232)
Co-op Work Term 3 (3232)
Semester 6
ETEC-321 Digital Signal Processing
ETEC-322 Embedded Systems
ETEC-323 Control Systems 2
ETEC-324 Wireless Networks & Applications
ETEC-325 Fiber Optics Communications
ETEC-326 Technical Project
PHYS-307 Physics for Electronics (3222)
GNED-212 Ethics in Technology and the Environment (3232)
Environmental Protection Technician

Program Code: 4221
Program Length: 1 year/2 semesters
Credential: Ontario College Diploma
Start: Fall
Campus: Centennial Science and Technology Centre
enviro@centennialcollege.ca

Program Overview

Qualified college or university graduates gain direct admission to this program. Practical training in the three foundation disciplines of chemistry, biology and civil engineering will teach you to understand and manage complex environmental problems. This unique combination of technical skills will greatly increase your career options.

Learn to use the tools and equipment needed in microbiology, ecological field sampling, analytical chemistry and surveying. Laboratory practice in water quality testing, ground-water movement and the chemistry of pollutants will give you the skills needed to analyze and remediate the urban environment.

Benefits

Program Highlights

- graduates are qualified to write the Ontario Ministry of the Environment Water Quality Analyst exam
- transfer credits/advanced standing may be awarded for previous science or engineering education
- multidisciplinary approach is accredited by ECO Canada (formerly CCHREI)
- opportunities for participation in local conservation and restoration activities
- diploma earned is recognized in Canada and abroad, reflecting high standards of learning

Career Outlook

Environmental companies hire our graduates for laboratory and field work in water and waste chemistry, microbiological and toxicity testing, soil collection and analysis, conservation, technical sales and materials handling.

The organizations our graduates work for include:

- MDS Laboratories
- Ontario Ministry of the Environment
- Ontario Ministry of Natural Resources
- Phillips Services (Environmental)
- Save the Rouge Valley System
- Soil Probe Limited
- Zenon Environmental

Certification and Accreditation

Graduates of the technician program can write the Ontario Clean Water Agency licensing exams such as the Operator in Training (OIT) and Water Quality Analyst (WQA). Graduates can also register with the Ontario Association of Certified Engineering Technicians and Technologist (OACETT) and ECO Canada for the national Canadian Environmental Practitioner in Training (CEPIT).

CTAB Nationally Accredited Program

The Environmental Protection Technician program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

Recognition as a Certified Engineering Technician/Technologist

OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Environmental Protection Technician program as meeting all the academic requirements for certification in the Technician category.

Admission Requirements

Academic Requirements

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in a science or engineering discipline.

Non-Academic Requirements

- transcript review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

Semester Requirements

- students will be required to take a microbiology laboratory preparation/college orientation course offered to prepare for semester 3 & 4.

Program Outline

Semester 3

| BI-230  | Ecology                                      |
| CH-121  | Organic Chemistry                            |
| PC-124  | Physics for Environmental                     |
| PW-231  | Soils and Groundwater                        |
| PW-232  | Topographical Surveying                      |
| COMM-170/171 | College Communications 2                   |

Semester 4

| BI-240  | Applied Enviro Microbiology                  |
| CH-207  | Analytical Chemistry                          |
| PW-242  | Water Quality Control                         |
| PW-243  | Engineering Equip & Processes                 |
| VS-242  | Enviro Legislation & Regulations              |
| ENGL-250 | Communication for Technology                 |
| GNE-500 | Global Citizenship: From Social Analysis to Social Action |

At a Glance

Organizations hiring program graduates include:

- City of Toronto
- Conservation Authorities
- Greenspoon Brothers
- Jacques Whitford Environmental
- MAXXAM Analytics

Drinking Water Operators

Entry-level course for Drinking Water Operators

Students who successfully complete this course will have met the requirements of the Ministry of the Environment’s Entry-Level Course for Drinking Water Operators. This course is delivered by Centennial College in partnership with the Ministry of the Environment and the Walkerton Clean Water Centre.
Environmental Protection Technology

Program Code: 4222
4232 (co-op)
Program Length: 2 years/4 semesters (4222)
2 years/4 semesters (4232)
Credentia: Ontario College Advanced Diploma
Start: Fall
Campus: Centennial Science and Technology Centre
enviro@centennialcollege.ca

Program Overview
Qualifed college or university graduates gain direct admission to this program. Practical training in the three foundation disciplines of chemistry, biology and civil engineering means that graduate technologists can understand and manage complex environmental problems. This unique combination of technical skills will greatly increase your career options.

You will learn to function effectively with the tools and equipment used in microbiology, ecological field sampling, analytical chemistry, hazardous material management, surveying and municipal engineering. AutoCAD drawing and Geographic Information Systems (GIS) mapping. Laboratory practice in water quality testing, groundwater movement, computer aided environmental audits and the chemistry of pollutants will give you the skills needed to analyze and remediate the urban environment.

CO-OP
This program offers an optional co-op component. Academically-qualified students enhance their education by working two terms as paid employees in the field. This experience allows you to put classroom learning into practice and provides valuable contacts for future careers.

BENEFITS

PROGRAM HIGHLIGHTS
• graduates are qualified to write the Ontario Ministry of the Environment Water Quality Analyst exam
• industry work placement in semester 6
• multidisciplinary approach is accredited by ECO Canada (formerly CCHREI)
• opportunities for participation in local conservation and restoration activities
• The Environmental Protection Technology and Technology co-op programs are recipients of Centennial College’s President’s Academic Program Recognition Award for Outstanding Student Satisfaction.

CAREER OUTLOOK
Environmental companies hire our graduates for laboratory and field work in water and waste chemistry, microbiological and toxicity testing, soil collection and analysis, conservation, technical sales and materials handling.

The organizations our graduates work for include:
• MDS Laboratories
• Ontario Ministry of the Environment
• Ontario Ministry of Natural Resources
• Phillips Services (Environmental)
• Save the Rouge Valley System
• Soil Probe Limited
• Zenon Environmental

CERTIFICATION AND ACCREDITATION
After semester 4 courses are completed, students can write the Ontario Clean Water Agency licensing exams such as the operator in Training (OIT) and Water Quality Analyst (WQA). Graduates can also register with ECO Canada for the national Canadian Environmental Practitioner in Training (CEPIT).

CTAB NATIONALY ACCREDITED PROGRAM
The Environmental Protection Technology program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST
OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Environmental Protection Technology program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

ACADEMIC REQUIREMENTS
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program in a science or engineering discipline.

NON-ACADEMIC REQUIREMENTS
• transcript and resumé review may be required
• English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

SEMESTER REQUIREMENTS
• students will be required to take a microbiology laboratory preparation/college orientation course offered to prepare for semester 3 and 4.

CO-OP REQUIREMENTS
• minimum C grade in COMM-170/171, minimum 2.5 GPA and completion of all core courses for COOP-221.
• departmental academic standards for co-op eligibility also apply.

PROGRAM OUTLINE

Semester 3
Bi-230 Ecology*
CH-121 Organic Chemistry*
PC-124 Physics for Environmental
PW-231 Soils and Groundwater*
PW-232 Topographical Surveying*
COMM-170/171 College Communications 2

Semester 4
Bi-240 Applied Enviro Microbiology*
CH-207 Analytical Chemistry*
PW-232 Water Quality Control*
PW-243 Engineering Equip & Processes*
VS-242 Enviro Legislation & Regulations*
ENGL-250 Communication for Technology
GNED-500 Global Citizenship: From Social Analysis to Social Action
COOP-221 Employment Preplacement (4232)

At A Glance
Organizations hiring program graduates include:
• City of Toronto
• Conservation Authorities
• Greenspoon Brothers
• Jacques Whitford Environmental
• MAXXAM Analytics

At A Glance
Organizations hiring program graduates include:
• City of Toronto
• Conservation Authorities
• Greenspoon Brothers
• Jacques Whitford Environmental
• MAXXAM Analytics

Entry-level course for Drinking Water Operators, see page 73

*minimum C grade required for entry into semester 5.
Journalism (Fast-track)

Program Code: 6412
Program Length: 2 years/4 semesters
Credential: Ontario College Advanced Diploma
Start: Fall
Campus: The Centre for Creative Communications
416-289-5100
centennialcollege.ca

**Program Overview**

Centennial’s unique Journalism Fast-track program is an accelerated course designed for university and college graduates. It will take you from the classroom, to the newsroom, to an industry field placement within just four semesters. From covering breaking news to exploring human interest stories, in this program you’ll report events, interview the newsmakers and examine the issues of our times. A career in journalism is exciting, fast-paced and focused on interesting people, places and stories.

**IN THIS PROGRAM**

- you’ll learn to write and tell stories in an energetic, dynamic and hands-on environment, led by a faculty of seasoned professionals and educators
- you’ll develop a portfolio of published stories and photos as you apply your skills in a real newsroom writing for an online publication and a community newspaper
- you’ll develop new multi-platform and online skills for the evolving world of news reporting.

**GLOBAL CITIZENSHIP AND EQUITY PORTFOLIO**

Students in this program will develop a portfolio documenting their engagement with the College’s signature global citizenship and equity competencies. For more information on Global Citizenship and Equity, the GC&E Portfolio, and the supports available to you, please see page i.

**BENEFITS**

**CAREER OUTLOOK**

Companies that have hired program graduates include:
- Canadian Living Online
- Canoe
- Chart Magazine
- National Post
- NOW Magazine
- Oshawa This Week
- 680 News
- Toronto Star
- TSN

**PROGRAM HIGHLIGHTS**

- gain hands-on experience with *The East Toronto Observer*, a community newspaper, and *The Toronto Observer*, online
- one-on-one interaction occurs between faculty and students in a professional newsroom atmosphere
- gain access to extensive publishing, broadcast and interactive facilities at The Centre for Creative Communications campus
- one semester is spent on work experience, with faculty support and guidance

**EDUCATIONAL PARTNERS**

Qualified graduates may be eligible to participate in an articulated program with selected universities, institutes, and professional associations. These partnerships allow graduates to apply academic credit toward further study.

Our partner is: Athabasca University, Professional Arts degree (communication studies)

**TESTIMONIAL**

“I would wholeheartedly recommend Centennial College to anyone looking for a career in journalism. Among the program’s many strengths, credit has to be given above all to its dedicated and demanding instructors, who set high expectations for their students – the best kind of preparation for a tough, competitive field.

In fact, at the National Post, where I work, some editors put a premium on Centennial grads, and go out of their way to make room for them because of their reputation for arriving prepared to contribute. Personally, I arrived here with enough experience and training that I was able to write a publishable story on day one. Things continued to go well and in time I got a full-time, permanent job. I can’t think of a better endorsement than that.”

Adam McDowell, Reporter, National Post, Journalism Program Graduate, 2005

**ADMISSION REQUIREMENTS**

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree program. We will also consider applicants presenting a combination of partial post-secondary education (minimum—two years) and relevant work experience.

**NON-ACADEMIC REQUIREMENTS**

Program admission session including a
- four-part writing test
- portfolio
- resumé

For information on the admission process, please see p. 14.

**PROGRAM OUTLINE**

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JO-106</td>
<td>Journalism Law and Ethics</td>
</tr>
<tr>
<td></td>
<td>JO-206</td>
<td>Journalism Design*</td>
</tr>
<tr>
<td></td>
<td>JO-211</td>
<td>News Reporting*</td>
</tr>
<tr>
<td></td>
<td>JO-218</td>
<td>Imaging: Journalism*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JO-203</td>
<td>Magazine/Freelance Journalism*</td>
</tr>
<tr>
<td></td>
<td>JO-205</td>
<td>Advanced Interviewing Techniques*</td>
</tr>
<tr>
<td></td>
<td>JO-210</td>
<td>News Laboratory 1*</td>
</tr>
<tr>
<td></td>
<td>JO-217</td>
<td>Radio News*</td>
</tr>
<tr>
<td></td>
<td>JO-220</td>
<td>Multiplatform Journalism*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JO-313</td>
<td>Beat Reporting*</td>
</tr>
<tr>
<td></td>
<td>JO-316</td>
<td>News Laboratory 2*</td>
</tr>
<tr>
<td></td>
<td>JO-317</td>
<td>Television News*</td>
</tr>
<tr>
<td></td>
<td>JO-318</td>
<td>Journalism Career Management*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 6</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JO-350</td>
<td>Field Placement*</td>
</tr>
</tbody>
</table>

*minimum C grade required
Massage Therapy Refresher

Program Code: 5120
Program Length: 1 year/2 semesters
Credential: Ontario College Advanced Diploma
Start: Winter
Campus: Centennial Science and Technology Centre
healthstudies@centennialcollege.ca
416-289-5303

Program Overview
The Massage Therapy Refresher program is offered to therapists who are looking for education that will allow them to meet the standards required to practice as massage therapists in Ontario. It is open to trained out-of-province massage therapists once their credentials have been assessed at the College of Massage Therapy of Ontario and meet the criteria for this program. This program also provides education to those massage therapy candidates who were not successful in the provincial exam, or for Ontario registered massage therapists who need a refresher to begin practice again.

Building on your current knowledge and skill as a massage therapist, you will be guided and directed to develop the competency required for massage practice within the current Ontario Practice Standards.

Program Overview

The Massage Therapy Refresher program is offered to therapists who are looking for education that will allow them to meet the standards required to practice as massage therapists in Ontario. It is open to trained out-of-province massage therapists once their credentials have been assessed at the College of Massage Therapy of Ontario and meet the criteria for this program. This program also provides education to those massage therapy candidates who were not successful in the provincial exam, or for Ontario registered massage therapists who need a refresher to begin practice again.

Building on your current knowledge and skill as a massage therapist, you will be guided and directed to develop the competency required for massage practice within the current Ontario Practice Standards.

Benefits

Career Outlook
Massage therapy is a regulated health profession in Ontario practised under the Regulated Health Professions Act and the Massage Therapy Act. North Americans are discovering the benefits of massage therapy. It is one of the fastest growing health professions and it is the largest complementary therapy profession in Canada, utilized by an estimated 17-24 per cent of the general public. The massage therapy profession provides tremendous opportunity for entrepreneurship. It is a highly flexible career, allowing you to choose work schedules that best fit your lifestyle.

Program Learning Outcomes

Graduates are prepared to:
• conduct a massage therapy practice within an ethical framework, and applicable legal and legislative parameters
• communicate and collaborate in an effective professional manner
• develop therapeutic relationships that support health and well-being
• collect and use client information to determine the appropriateness of massage therapy
• develop, implement and evaluate the effectiveness of a treatment plan
• maintain documentation and professional readiness to ensure quality care
• apply appropriate business principles to a massage therapy practice

Admission Requirements

Non-Academic Requirements
- College of Massage Therapists of Ontario Credential Assessment
- transcripts from a post-secondary Massage Therapy program OR
- proof of successful completion of an Ontario approved Massage Therapy program OR
- current registration with College of Massage Therapists of Ontario

For information on the admission process, please see p. 14.

Field Placement Requirements

• students will receive a document to be completed by a doctor or nurse who will confirm that he or she meets the health requirements of legislated acts, ministry guidelines and agency policies
• completion of CPR course (Level C-HCP) in last two years and standard first aid certification

Program Outline

Semester 1
THER-531 Massage Therapy in Ontario
THER-532 Clinical Assessment
THER-533 Musculoskeletal Anatomy and Palpation
THER-534 Anatomy and Pathophysiology Processes 1
THER-535 Clinical Skills
THER-536 Wellness Practice for Massage Therapists
THER-537 Massage Therapy Practice Management

Semester 2
THER-631 Regional Application of Massage Therapy 1
THER-632 Clinic Practice 1 *
THER-633 Community Practice 1 *
THER-634 Anatomy and Pathophysiology Processes 2
THER-635 Comprehensive Practice Review

Note: minimum C grade required in all courses.
* satisfactory grade required in these courses

At A Glance

Graduates are prepared to work at:
• their own practices
• therapy clinics (under contract)
• sports rehabilitation clinics
• health spas
• workplaces that provide on-site therapy
Mechanical Engineering Technician – Design

Program Code: 3725
Program Length: 1 year/2 semesters
Credential: Ontario College Diploma
Start: Fall
Campus: Progress
mechanical@centennialcollege.ca

**Program Overview**

Qualified college or university graduates gain direct admission into this two-year program and receive their technician diploma in two semesters.

This program offers variety to those who can combine strong conceptual thinking with a practical knowledge of machines and how they work. A project approach to learning is used. Small groups work on specific projects, learning how to plan, schedule, create, design and build as a team. You will also learn advanced computer-assisted drafting and computer-assisted manufacturing (CAD/CAM) skills.

This program allows you to either graduate as a technician after one year, or continue for additional study and co-op work experience in Centennial’s Mechanical Engineering Technology – Design program. The additional study takes an extra year to complete.

**Benefits**

**Career Outlook**
Graduates are prepared for work in manufacturing/mechanical related areas as:

- junior engineers
- assistant to professional engineers
- quality control
- mechanical testing
- CAD operators
- technical sales and marketing
- production control
- product design and development

**Program Highlights**
- you will gain experience in machine shop operation, tool design, plus computer numerical control programming
- industry-current software instruction in: MasterCAM Version “X”, and Autodesk software including AutoCAD 2009 and Inventor 2009
- state-of-the-art CAD/CAM equipment is used
- approximately 60-40 balance of theory and practice
- the project-driven program gives you practical experience in designing, building, testing an original piece of equipment. The project approach simulates actual workplace assignments
- the program uses a state-of-the-art mechanical engineering lab that include: Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers

**CTAB Nationally Accredited Program**

The Mechanical Engineering Technician – Design program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

**Recognition as a Certified Engineering Technician/Technologist**

OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Mechanical Engineering Technician – Design program as meeting all the academic requirements for certification in the Technician category.

**Admission Requirements**

Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree in a related mechanical engineering area.

**Non-Academic Requirements:**
- interview: transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

**Program Outline**

**Semester 3**
- MT-201 CNC Fundamentals & Programming
- MT-204 Strength of Materials
- MT-224 Applied Dynamics
- MT-318 Fluid Mechanics 1
- MATH-316 Statistics
- COMM-170/171 College Communications 2

**Semester 4**
- MT-222 Project: Design & Construction
- MT-225 Hydraulics & Pneumatics
- MT-228 Tool and Fixture Design
- MATH-223 Diff. & Integral Calc. 1
- Gned-500 Global Citizenship: From Social Analysis to Social Action

Note: Fast-track students will be placed in the appropriate English and math level based on skills assessment results
Program Code: 3735
3745 (PTY)'
Program Length: 2 years/4 semesters
Credential: Ontario College
Advanced Diploma
Start: Fall
Campus: Progress
mechanical@centennialcollege.ca

Program Overview

Qualified college or university graduates gain direct admission into this three-year program and receive their technology diploma in four semesters.

This program combines courses in engineering theory and practice, focusing on the design and development of various mechanical devices and equipment. You will obtain a thorough grounding in engineering sciences and skills, including advanced computer-assisted drafting and manufacturing (CAD/CAM), as used in industry. In addition, a new course has been added to introduce the engineering technologist to Finite Element Analysis using ANSYS Software. About one-quarter of the program time is spent on project work. Projects simulate workplace assignments, relating classroom theory to the actual design, manufacture.

This program option features a PTY component. Academically-qualified students enhance their education by working three terms as paid employees in the field. This experience not only allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

BENEFITS

CAREER OUTLOOK

Graduates are prepared to work in manufacturing/mechanical related areas as:

• junior engineers
• assistant to professional engineers
• CAD operators
• mechanical testing
• quality control
• technical sales
• production control
• product design and development

PROGRAM HIGHLIGHTS

• you will gain experience in machine shop operation, tool design, plus computer numerical control programming
• industry-current software instruction in: MasterCAM Version "X", and Autodesk software including AutoCAD 2009 and Inventor 2009, and ANSYS II software.
• state-of-the-art CAD/CAM equipment is used
• approximately 60-40 balance of theory and practice
• the project-driven program gives you practical experience in designing, building, testing an original piece of equipment. The project approach simulates actual workplace assignments
• the program uses a state-of-the-art mechanical engineering lab that include: Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers

EDUCATIONAL PARTNERS

Qualified graduates (minimum 3.5 GPA) are eligible to participate in a two-year articulated program with Lakehead University and Cape Breton University for an engineering degree.

CTAB NATIONALY ACCREDITED PROGRAM

The Mechanical Engineering Technology – Design program has met the national technology accreditation requirements established by the Canadian Council of Technicians and Technologists (CCTT) and, as such, has received national accreditation status by the Canadian Technology Accreditation Board (CTAB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Mechanical Engineering Technology – Design program as meeting all the academic requirements for certification in the Technology category.

ADMISSION REQUIREMENTS

Applicants to Fast-track programs must submit an official transcript demonstrating: proof of successful completion of a post-secondary diploma or degree in a related mechanical engineering area.

NON-ACADEMIC REQUIREMENTS:

• interview, transcript and resumé review may be required
• English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

CO-OP (PTY) REQUIREMENTS:

• minimum 2.5 GPA and minimum 80 per cent of year 1 and 2 courses for COOP-221

PROGRAM OUTLINE

Semester 3
MT-201 CNC Fundamentals & Programming
MT-204 Strength of Materials*
MT-224 Applied Dynamics*
MT-318 Fluid Mechanics 1*
MATH-316 Statistics
COMM-170/171 College Communications 2

Semester 4
MT-228 Tool and Fixture Design
MT-225 Hydraulics & Pneumatics
MT-222 Project: Design & Construction*
MATH-223 Diff. & Integral Calc. 1*
GNED-500 Global Citizenship: From Social
Analysis to Social Action

Semester 5
BUSN-129 Business Operations
MT-305 Dynamics of Machines and
Mechanisms*
MT-309 Thermodynamics 1*
MT-338 Fluid Mechanics 2*
MT-335 Machine Design 1*
MATH-313 Diff. & Integral Calc. 2*
COOP-221 Employment Preplacement (3745)

Professional Technology Year

Semester 6
MT-300 FEA Applications
MT-323 Instrumentation & Control
MT-324 Advanced Project: Design &
Construction*
MT-339 Thermodynamics 2*
MT-342 Machine Design 2*

Note: Fast-track students will be placed in the appropriate English and math level based on skills assessment results
* minimum C grade required for Technologist graduation.

1 Professional Technology Year
Mechanical Engineering Technology – Industrial

Program Code: 3747
3748 (PTY) 1
Program Length: 2 years/4 semesters
Credential: Ontario College Advanced Diploma
Start: Fall
Campus: Progress
mechanical@centennialcollege.ca

**Program Overview**

Qualified mechanical engineering college or university graduates (or those with at least one successful year) gain direct admission into this three-year program and receive their technology diploma in four semesters.

This program combines courses in engineering theory and practice, focusing on the design and development of various mechanical devices and equipment. You will obtain a thorough grounding in engineering sciences and skills, including intermediate to advanced computer-assisted design and manufacturing, as used in the industry. In addition, a new course has been added to introduce the engineering technologist to Finite Element Analysis using ANSYS Software. About one-quarter of the program is spent on project work. Projects simulate workplace assignments, relating classroom theory to the actual design, manufacture and testing of mechanical systems. This program offers an optional PTY component. Academically-qualified students enhance their education by working three terms as paid employees in the field. This experience not only allows you to put classroom learning into practice, but also provides valuable contacts for future careers.

**BENEFITS**

**CAREER OUTLOOK**
Graduates are prepared to work in manufacturing/mechanical related areas as:
- plant facility technologist
- assistant to professional engineers
- CAD operators
- mechanical testing
- quality control
- technical sales
- production control
- product design and development

**PROGRAM HIGHLIGHTS**
- you will gain experience in machine shop operation, tool design, plus computer numerical control programming
- industry-current software instruction in: MasterCAM Version “X”, and Autodesk software including AutoCAD 2009 and Inventor 2009, and ANSYS II software.
- state-of-the-art CAD/CAM equipment is used
- approximately 60-40 balance of theory and practice
- the project-driven program gives you practical experience in designing, building, testing an original piece of equipment. The project approach simulates actual workplace assignments
- the program uses a state-of-the-art mechanical engineering lab that include Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers

**ADMISSION REQUIREMENTS**
Applicants to Fast-track programs must submit an official transcript demonstrating proof of successful completion of a post-secondary diploma or degree in a related mechanical engineering area.

**NON-ACADEMIC REQUIREMENTS:**
- interview, transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

**CO-OP (PTY) REQUIREMENTS:**
- minimum 2.5 GPA and minimum 80 per cent of year 1 and 2 courses required for COOP-221

**GRADUATION REQUIREMENTS:**
- minimum C grade required for Technologist graduation

**PROGRAM OUTLINE**

**Semester 3**
- MT-201 CNC Fundamentals & Programming
- MT-204 Strength of Materials*
- MT-224 Applied Dynamics*
- MT-228 Tool and Fixture Design
- MATH-316 Statistics
- COMM-170/171 College Communications 2

**Semester 4**
- MT-222 Project: Design & Construction*
- MT-225 Hydraulics & Pneumatics
- MT-228 Tool and Fixture Design
- MATH-223 Diff. & Integral Calc. 1*
- GNED-500 Global Citizenship: From Social Analysis to Social Action

**Semester 5**
- BUSN-129 Business Operations
- MT-335 Machine Design 1*
- OMGТ-336 Advanced Operation Systems
- OMGТ-338 Project Communication & Facilitation
- MATH-313 Diff. & Integral Calc. 2*
- COOP-221 Employment Preplacement (3748)

**Professional Technology Year**

**Semester 6**
- MT-300 FEA Applications
- MT-324 Advanced Project: Design & Construction*
- OMGТ-226 Materials Management
- OMGТ-331 Quality Assurance
- OMGТ-333 Integrated Operations Management

1 Professional Technology Year

Note: Fast-track students will be placed in the appropriate English and math level based on skills assessment results
* minimum C grade required for Technologist graduation.
Practical Nursing Fast-track Bridging Program for Internationally-educated Nurses

Program Code: 9352
Program Length: 1 year/3 semesters
Campus: Centennial Science and Technology Centre
Credential: Ontario College Diploma
Start: Fall, Winter
healthstudies@centennialcollege.ca
416-289-5303

Program Overview

This program is designed as an academic pathway to meet the needs of internationally-educated nurses who are: interested in working as Registered Practical Nurses (RPNs) in Canada; RPNs who hold a Certificate and wish to upgrade to an Ontario College Diploma; RPNs who have been out of practice for ten years or less and need a refresher program.

This program is three semesters, including 15 weeks of consolidation experience. It focuses on assisting you to develop your knowledge, critical thinking, communication, research and leadership skills, and to apply these skills in practice in acute health care settings.

The program’s curriculum has been designed in accordance with the College of Nurses of Ontario’s Professional Standards and entry to Practice Competencies for Ontario Registered Practical Nurses. Centennial College values and respects the challenges and commitments that you may be faced with on a daily basis. The program has been designed with your needs in mind so that you may continue with your studies towards a diploma while maintaining your part-time employment and/or personal commitments.

This diploma program will enable you to continue your academic studies at the baccalaureate level. RPNs with a diploma in Practical Nursing (with a minimum 3.0 GPA) may continue their studies at Centennial’s Bridging to University Nursing program and upon completion of this program can apply to Ryerson’s post-degree completion program to earn a Bachelor of Science in Nursing.

BENEFITS

**CAREER OUTLOOK**
RPNs work in a variety of settings such as hospitals, long-term care and community settings. Typically, RPNs are attracted to positions where they can work with people through the healing process and provide hands on nursing care. With additional courses, RPN’s are able to work in more specialized settings including operating rooms and clinics. A recent study commissioned by the Canadian Nurses Association predicts that by the year 2011, there will be a severe shortage of nurses. This shortage could mean that 59,000 to 113,000 nurses will be needed.

**DISTINCTIVE BENEFITS FOR CENTENNIAL STUDENTS**
- the program is delivered at an accelerated pace
- the diploma that is earned reflects a high level of learning
- students have the opportunity to continue with an academic pathway with a degree completion (Bridging to University Nursing program)

**ADMISSION REQUIREMENTS**
Applicants to diploma programs must submit an official transcript demonstrating proof of successful completion of a post-secondary Certificate in Practical Nursing and current College of Nurses of Ontario Certificate of Registration. For international students, a letter from the College of Nurses stating the courses required to write the Practical Nurse registration exams is needed.

**NON-ACADEMIC REQUIREMENTS**
- interview, transcript and resumé review may be required
- English and/or math skills assessment may be required

For information on the admission process, please see p. 14.

**FIELD PLACEMENT REQUIREMENTS**
- certifications must be valid for the entire field placement
- annual clear vulnerable police check prior to clinical placement
- a completed Immunization Review Form (a standard form will be issued to student after receipt of your application)
- successful completion of a current recognized course in CPR Level HCP (Health Care Provider & Standard First Aid (courses available at the College at an additional cost)
- Mask Fit testing will be done at Centennial College

**PROGRAM OUTLINE**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEPN-123</td>
<td>IEPN-223</td>
<td>IEPN-250</td>
</tr>
<tr>
<td>Introduction to Nursing in Ontario</td>
<td>Issues, Trends and Professional Nursing Practice</td>
<td>Preceptorship</td>
</tr>
<tr>
<td>IEPN-124</td>
<td>IEPN-224</td>
<td></td>
</tr>
<tr>
<td>Theoretical Concepts in Nursing 1</td>
<td>Theoretical Concepts in Nursing 2</td>
<td></td>
</tr>
<tr>
<td>IEPN-125</td>
<td>IEPN-225</td>
<td></td>
</tr>
<tr>
<td>Nursing Practice in Ontario 1 (2 hour lab + 2 hour field)</td>
<td>Nursing Practice in Ontario 2 (2 x 6 hour days + 2 hour lab)</td>
<td></td>
</tr>
<tr>
<td>IEPN-126</td>
<td>PATH-222</td>
<td></td>
</tr>
<tr>
<td>Health Assessment: A Holistic Approach</td>
<td>Pathophysiology/Pharm 2</td>
<td></td>
</tr>
<tr>
<td>PATH-122</td>
<td>COMM-160/161</td>
<td></td>
</tr>
<tr>
<td>Pathophysiology/Pharm 1</td>
<td>College Communication 1</td>
<td></td>
</tr>
<tr>
<td>COMM-170/171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Communication 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At A Glance

- Curriculum is based on the College of Nurses’ Standards of Practice for Nurses and entry to practice competencies for Ontario Registered Practical Nurses
- A two-day-per-week practice course in semester two allows students to apply theoretical knowledge in clinical settings under the direction and guidance of faculty members who have expertise in acute, chronic and long-term care.