

FAST-TRACK PROGRAMS



Architectural Technology

Program Code: 3125
3135 (co-op)
Program Length: 3 years/4 semesters (3125)
3 years/6 semesters (3135)
Credential: Ontario College
Advanced Diploma
Start: Fall
Campus: Morningside
archtech@centennialcollege.ca
416-289-5000, ext. 8123

Program Overview

Qualified graduates with a degree in architecture, including other than Canadian universities, gain direct admission into the third semester of the three-year Architectural Technology program and receive their technology diploma in four academic semesters. This Fast-track program is primarily aimed towards internationally-trained professionals seeking knowledge of North American construction practice and language.

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, as well as complex buildings and multi-use buildings.

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

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.

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

BENEFITS

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 standing in educational programs leading to professional careers through the Royal Architectural Institute of Canada Syllabus.

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

CERTIFICATION AND ACCREDITATION

Graduates may apply for the following:

- To become a member of the Association of Architectural Technologists of Ontario (AATO)
- To obtain a Building Code Identification Number (BCIN)
- To obtain LEED status through membership with the Canada Green Building Council (CaGBC)

CTAB NATIONALLY ACCREDITED PROGRAM

The Architectural 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 TECHNOLOGIST



The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Architectural Technology program as meeting all the academic requirements for certification in the Technologist Category. This certification may lead to membership with the Ontario Association for Applied Architectural Sciences (OAAAS), which is a stepping stone to membership with the Ontario Association of Architects (OAA) as a Licensed Technologist OAA.

ADMISSION REQUIREMENTS

ELIGIBILITY

- University degree in architecture or related discipline

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
 - English Skills assessment is required
- For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and completion of all core courses and minimum 2.5 GPA required for COOP-221 and subsequent co-op work placements
- 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 and 4 will have all the prerequisite requirements for courses in semesters 5 and 6.

PROGRAM OUTLINE

Semester 3

ARBC-205	Builders and Contractors*
COMM-170/171	College Communications 2*
ACHS-204	Construction Health & Safety*
ARCH-201	Design and Computer Aided Drafting Project 3*
ENVR-203	Environment 3*
GNEB-158	History of Western Architecture*
MATM-202	Materials and Methods 3*

Semester 4

ARGR-224	Architectural Graphics*
ARBS-222	Building Services 1*
ARCH-221	Design and Computer Aided Drafting Project 4*
COOP-221	Employment Preplacement (3135)
ENVR-223	Environment 4*
GNEB-500	Global Citizenship: From Social Analysis to Social Action Structures*

ARST-305

COOP-222

COOP 331

Semester 5

ARPT-304	Advanced Presentation Techniques
ARST-306	Advanced Structures
ARBS-302	Building Services 2
ARCH-301	Design and CAD Complex Project
ENVR-303	Environment 5
ARPM-225	Project Management
ARBW-307	Technical Writing

Semester 6

ARPE-326	Building Code Sustainable Qualification Preparation
ARBL-324	Building Within the Municipality
ARCL-322	Contracts, Law and Professional Practice & Ethics
ARCH-321	Design and CAD Multi-Use Project
ENVR-323	Environment 6
ARSW-325	Specification Writing & Contracts

*minimum C-grade required for Technologist.

Biomedical Engineering Technology

Program Code: 3427
3437 (co-op)

Program Length: 3 years/6 semesters (3427)
3 years/9 semesters (3437)

Credential: Ontario College
Advanced Diploma

Start: Fall, Winter

Campus: Progress

bet@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with an electronics background gain **direct admission into semester three** of the three-year program and receive their technology diploma in four semesters plus two work terms.

In the biomedical equipment industry, engineering and scientific disciplines merge, resulting in innovations within the healthcare system that benefit society as a whole.

Currently, there is a great need for qualified professionals in biomedical engineering. The program 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

The Biomedical Engineering Technology 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. Students will be guided towards future Certified Engineering Technologist (CET) and Certified Biomedical Engineering Technologist (CBET) certifications.

Academically-qualified students enhance their education with the co-op component 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
- The program is part of an active student chapter of the Institute of Electrical and Electronic Engineers (IEEE)
- The program has its own Biomedical Student Club
- Opportunity exists for paid co-op work

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

CTAB NATIONALLY ACCREDITED PROGRAM

The Biomedical 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 TECHNOLOGIST



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

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum 2.5 GPA and a minimum 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

ANAT-106	Applied Anatomy & Physiology
BTEC-211	Biomedical Engineering Technology
COMM-170/171	College Communications 2
ETEC-204	Electronic Communication Systems
ETEC-201	Electronics 2
BTEC-212	Microbiology & Infection Control

Semester 4

BTEC-221	Biomedical Engineering 2
BTEC-222	Dialysis & Water Treatment
ETEC-221	Electronics 3
COOP-221	Employment Preplacement (3437)
GNED-500	Global Citizenship: From Social Analysis to Social Action
ETEC-203	Measurement & Instrumentation
ETEC-202	Microcontrollers 1
BTEC-225	Project Design Applications

COOP-222

Co-op Work Placement 1 (3437)

Semester 5

BTEC-321	Advanced Topics in Biomedical Engineering
BTEC-325	Computer Integrated Surgery & Telemedicine
GNED-212	Ethics in Technology and the Environment
ETEC-222	Microcontrollers 2
ENGL-250	Report Writing in a Technical Environment

ETEC-205

ETEC-324

COOP-331

RF Transmission & Measurements
Wireless Networks & Applications
Co-op Work Placement 2 (3437)

Semester 6

BTEC-312	Biomechanics & Rehabilitation Engineering
BTEC-327	Biomedical Project
ETEC-223	Control Systems 1
ETEC-224	Data Communications & Networks
BTEC-313	Medical Imaging Systems
BTEC-314	Photonics Devices & Laser Treatment
ETEC-306	QA and Project Management
EMPS-101	Employment Skills 1 (3427)

At A Glance

Healthcare technology professionals work in settings such as:

- Hospitals
- Medical equipment companies
- Pharmaceutical companies
- Rehabilitation facilities

Biotechnology Technician – Industrial Microbiology

Program Code: 3621

Program Length: 2 year/2 semesters

Credential: Ontario College Diploma

Start: Fall, Winter

Campus: Morningside

bio@centennialcollege.ca

416-289-5000, ext. 8123

Program Overview

Qualified college or university graduates (please see the Admission Requirements section for more information) gain direct admission into semester three of this nationally-accredited two-year program and receive their diploma in two semesters. This program prepares you to work as a bench technician in the food, pharmaceutical and cosmetic industries.

This program proves 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, 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 meter, Gas Chromatographs, spectrophotometers (regular/IR/UV) and HPLC's
- Prepare microbiological media and reagents, culture pathogenic microbes
- Design and perform your own microbiology experiments
- Use microorganisms to assay pharmaceutical products

AWARDS

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

BENEFITS

PROGRAM HIGHLIGHTS

- Graduates may apply for certification through Ontario Association of Certified Engineering Technicians and Technologists (OACETT) to use the following professional designation: Certified Technician (CTech)
- 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 GMP and HACCP to industry standards
- Qualified and caring faculty and staff provide individual attention in laboratories
- Teamwork skills are encouraged and developed
- Qualified graduates may apply to enter the third year of the Biotechnology Technologist program

CAREER OUTLOOK

Graduates typically start their careers as quality control technicians in a broad range of industries, including:

- Food
- Cosmetics
- Pharmaceuticals
- Related government agencies

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



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

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in chemistry/biology or engineering, or related discipline

ADDITIONAL REQUIREMENTS

- Admission transcript review is required
 - English skills assessment is required
- For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

CH-207	Analytical Chemistry
BAM-108	Biological Techniques
COMM-170/171	College Communications 2
BI-208	Food Microbiology
BI-207	Microbiology Project 1
CH-121	Organic Chemistry

Semester 4

Course Code	Course Title
CH-222	Biochemistry 1
CH-203	Food Chemistry
GNED-500	Global Citizenship: From Social Analysis to Social Action
BI-206	Microbiology Project 2
BI-209	Pharmaceutical Microbiology
ENGL-250	Report Writing in a Technical Environment

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: 3 years/4 semesters (3622)

3 years/6 semesters (3632)

Credential: Ontario College

Advanced Diploma

Start: Fall, Winter

Campus: Morningside

bio@centennialcollege.ca

416-289-5000, ext. 8123

Program Overview

Qualified college or university graduates gain direct admission into semester three of this three-year program, and receive their technologist advanced diploma in six semesters.

You will 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. Theory and technical practice are combined with many opportunities to enhance experience. Also, project work, in consultation with faculty, helps you to 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, 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
- Design and perform advanced microbiology and microbial genetics experiments
- Use microorganisms to assay pharmaceutical products

CO-OP

This program offers an optional co-op component. Academically-qualified students enhance their education by working two 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

PROGRAM HIGHLIGHTS

- National accreditation improves the mobility of graduates anywhere in Canada
- Apply for certification through OACETT (Ontario Association of Certified Engineering Technicians and Technologists) to use the following professional designation: CET (Certified Engineering Technologist)
- Standard and specialized equipment (e.g. autoclaves, incubators, PCR thermocyclers and gel electrophoresis equipment) is used
- Eight ultra-modern labs and lecture facilities
- Complete a three-year program in two years (plus time spent in co-op placements)

CAREER OUTLOOK

Besides laboratory work, graduates may choose to use their knowledge in:

- Product development
- Production
- Sales

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



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

ADMISSION REQUIREMENTS

ELIGIBILITY

College diploma or university degree in chemistry/biology or engineering, or related discipline

ADDITIONAL REQUIREMENTS

- Admission transcript review is required
 - English Skills assessment is required
- For information on the admission process, please see p. 18.

SEMESTER AND CO-OP REQUIREMENTS

- Minimum GPA of 2.5 and completion of all core courses and a minimum C grade in COMM-170/171 are required for COOP-221, and subsequent co-op work placements
- Departmental academic standards for co-op eligibility also apply

NOTES:

1. Because admission numbers are limited, possessing the minimum requirements does not ensure admission to the program.

PROGRAM OUTLINE

Semester 3

CH-207	Analytical Chemistry*
BAM-108	Biological Techniques
COMM-170/171	College Communications 2
BI-208	Food Microbiology*
BI-207	Microbiology Project 1*
CH-121	Organic Chemistry

Semester 4

CH-222	Biochemistry 1*
COOP-221	Employment Preplacement (3632)
CH-203	Food Chemistry*
GNE5-500	Global Citizenship: From Social Analysis to Social Action
BI-206	Microbiology Project 2*
BI-209	Pharmaceutical Microbiology*
ENGL-250	Report Writing in a Technical Environment

COOP-222

Co-op Work Term 1 (3632)

COOP-331

Co-op Work Term 2 (3632)

Semester 5

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

Semester 6

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

*minimum C-grade required for entry into semester 5.

Business Administration – Accounting (3 Semesters)

Program Code: 2435
Program Length: 3 semesters
Credential: Ontario College
Advanced Diploma
Start: Winter, Summer
Campus: Progress
business@centennialcollege.ca
416-289-5000, ext. 2280

Program Overview

Qualified college or university graduates gain direct admission into the three-year Accounting program (2405) at an advanced level. Graduates may receive a block transfer credit for three semesters of the program, leaving only three 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.

This Fast-track program will provide the qualified applicant full value for previous studies and eliminate the administrative activities related to individual transfer credits. This unique program is 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 this program your consideration.

IF YOU ARE INTENDING TO PURSUE THE CGA QUALIFICATION:

Please contact CGA (www.cga-ontario.org) to obtain an exemptions assessment for your degree or diploma courses. Our program advisors in the School of Business will assist you in reviewing these exemptions to offer you the maximum possible equivalencies to successfully complete this advanced diploma program.

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 not-for profit sector of the economy
- The School of Business is committed to student success — we offer flexibility in curriculum design
- Most members of the Accounting faculty are professional accountants with solid industry experience
- The School offers leading edge information technology infrastructure
- Many classes are taught in a lab environment, which is fully equipped with an integrated network of computer systems

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 not-for-profit sectors of the Canadian economy

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in any discipline.

NON-ACADEMIC REQUIREMENTS

- English Assessment is required
- Math skills assessment may be required (if your previous diploma or degree does not include mathematics courses)

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 1

BUSN-331	Business Law
COMM-170/171	College Communications 2
ACCT-224	Corporate Finance 1
ACCT-112	Financial Accounting 1
COMP-126	Microcomputer Applications Software 2

Semester 2

ACCT-228	Accounting Microcomputer Applications 1
ENGL-253	Advanced Business Communications
ACCT-221	Financial Accounting 2
ACCT-256	Intermediate Financial Accounting 1
ACCT-222	Management Accounting 1

Semester 3

ACCT-257	Accounting Systems 1
ACCT-266	Intermediate Financial Accounting 2
ACCT-322	Management Accounting 2
OPTION	See Options List Below
ACCT-226	Taxation 1

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

OPTIONS: (Prerequisites listed in brackets)

ACCT-334	Corporate Finance 2 (ACCT-224)
ECON-104	Principles of Microeconomics (None)
FINA-330	Islamic Finance & Investment (None)
FINA-339	Canadian Securities Course Part 1 (None)
FINA-349	Canadian Securities Course Part 2 (FINA-339)
HRMT-318	Payroll (ACCT-112 & COMP-106)

Computer Engineering Technician – Embedded Networks

Program Code: 3126
Program Length: 2 years/2 semesters
Credential: Ontario College Diploma
Start: Fall, Winter
Campus: Progress
cet@centennialcollege.ca
416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates gain **direct admission into the third semester** the Computer Engineering Technician – Embedded Networks two-year program and receive their Technician **diploma in one year**.

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 reflects the ever-growing innovations of the embedded networks 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 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, hands-on labs and technical problem-solving.

BENEFITS

PROGRAM HIGHLIGHTS

- You will complete a two-year program in two semesters
- 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 the Institute of Electrical and Electronic Engineers (IEEE)

CAREER OUTLOOK

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

- MSC Electronics
- Optys
- Solectron
- Telesat
- ViDix Technology Corp.
- Research In Motion (RIM)
- Air Canada Simulation
- Celestica
- Enbridge Consumers Gas
- Toronto Hydro
- General Electric
- Leitch

CTAB NATIONALLY ACCREDITED PROGRAM

The Computer Engineering Technician – Embedded Networks 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



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

ADMISSION REQUIREMENTS

ELIGIBILITY

College diploma or university degree in science, engineering or a related discipline

We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

CTEC-208	C/C++ Programming
COMM-170/171	College Communications 2
CTEC-211	Computer Architecture
CNET-224	Data Communications
CTEC-212	Database Introduction
ETEC-203	Measurement & Instrumentation
EETEC-202	Microcontrollers 1
CTEC-213	Operating Systems with Linux

Semester 4

CTEC-221	Computer Engineering Electronics
CTEC-222	Control Networks
EMPS-101	Employment Skills
GNEC-212	Ethics in Technology and the Environment
GNEC-500	Global Citizenship: From Social Analysis to Social Action
EETEC-222	Microcontrollers 2
EETEC-225	Quality Control & Technician Project

Computer Engineering Technology – Embedded Networks

Program Code: 3127

3137 (co-op)

Program Length: 3 years/4 semesters (3127)

3 years/6 semesters (3137)

Credential: Ontario College

Advanced Diploma

Start: Fall, Winter

Campus: Progress

cet@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with a background in electronics gain **direct admission into the second year** of this three-year program and receive their technology **advanced diploma in four academic semesters** plus two work terms.

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 embedded networks revolution. 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.

The co-op option of this program allows academically-qualified students to enhance their education by working 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.

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

BENEFITS

PROGRAM HIGHLIGHTS

- Complete a three-year program in two years
- In 2007, 227 satisfied employers offered 718 work terms to Centennial co-op students
- Hands-on experience is provided by the use of 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 the Electrical and Electronic Engineers (IEEE)

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 partner is:

- Lakehead University, Engineering degree

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.

CTAB NATIONALLY ACCREDITED PROGRAM

The Computer Engineering Technology - Embedded Networks 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 TECHNOLOGIST



OACETT (The Ontario Association of Certified Engineering Technicians and Technologists) recognizes the Computer Engineering Technology – Embedded

Networks program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience.

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required.

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum 2.5 GPA and a minimum 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

CTEC-208	C/C++ Programming
COMM-170/171	College Communications 2
CTEC-211	Computer Architecture
CNET-224	Data Communications
CTEC-212	Database Introduction
ETEC-203	Measurement & Instrumentation
ETEC-202	Microcontrollers 1
CTEC-213	Operating Systems with Linux

Semester 4

MATH-285	Calculus
CTEC-221	Computer Engineering Electronics
CTEC-222	Control Networks
COOP-221	Employment Replacement (3137)
GNED-212	Ethics in Technology and the Environment
GNED-500	Global Citizenship: From Social Analysis to Social Action
ETEC-222	Microcontrollers 2
ETEC-225	Quality Control & Technician Project

COOP-222

Co-op Work Placement 1 (3137)

COOP-331

Co-op Work Placement 2 (3137)

Semester 5

CTEC-311	Data Acquisition and Interfacing
CNET-201	Network Devices
CTEC-228	Object Oriented Programming
CTEC-313	Real Time Operating Systems
ENGL-250	Report Writing in a Technical Environment
CTEC-321	System-on-Chip
CNET-304	Wireless Technology

Semester 6

CTEC-326	Computer Engineering Project
CTEC-312	Control Systems
CTEC-323	Database Management
CTEC-322	Digital Signal Processing
ETEC-322	Embedded Systems
CNET-301	Network Design & Test
CNET-324	Wireless Networks
EMPS-101	Employment Skills 1 (3127)

Computer Systems Technician – Networking

Program Code: 3424

Program Length: 2 years/2 semesters

Credential: Ontario College Diploma

Start: Fall, Winter

Campus: Progress

csnt@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates gain **direct admission into semester three** of the two year program and receive their technician **diploma in two semesters**.

The Fast-track Computer Systems Technician – Networking program has designed 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 test. The program has an optimum balance between hands-on experience and theory.

BENEFITS

PROGRAM HIGHLIGHTS

- Complete a two-year program in eight months
- Modern labs and lecture facilities
- Theory is reinforced by laboratory work
- This program is an active student branch of the Institute of Electrical and Electronics Engineers
- 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

CAREER OUTLOOK

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

CTAB NATIONALLY ACCREDITED PROGRAM

The Computer Systems Technician – Networking 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 Technician – Networking program as meeting all the academic requirements for certification in the Technician category.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

COMM-170/171	College Communications 2
GNET-212	Ethics in Technology and the Environment
CNET-225	Introduction to Telephony
MATH-269	Mathematics for Computer Systems 3
CNET-201	Network Devices
CNET-222	Network Services
CNET-124	Network Technologies

Semester 4

CNET-224	Data Communications
EMPS-101	Employment Skills
GNET-500	Global Citizenship: From Social Analysis to Social Action
CNET-229	Introduction to Business and ICT
CNET-221	Network Security
CNET-223	Network Support
ENGL-250	Report Writing in a Technical Environment
CNET-311	Routing & Switching
CNET-227	Technician Project

At A Glance

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: 3 years/4 semesters (3425)

3 years/6 semesters (3435)

Credential: Ontario College

Advanced Diploma

Start: Fall, Winter

Campus: Progress

csnt@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates in relevant programs gain **direct admission into semester three** of the three-year program and receive their technology **diploma in four semesters**.

The fast-track Computer Systems Technology – Networking program is designed 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.

The co-op option of this program allows academically-qualified students to enhance their education by working as paid employees in their field. This experience 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 create a healthy learning environment
- Theory is reinforced by laboratory work
- The program is part of an active student branch of the Institute of Electrical and Electronics Engineers (IEEE)
- 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.

CAREER OUTLOOK

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

CTAB NATIONALLY ACCREDITED PROGRAM

The Computer Systems Technology – Networking 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 Technology – Networking program as meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum 2.5 GPA and a minimum 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

COMM-170/171
GNED-212

College Communications 2
Ethics in Technology and the Environment

CNET-225
MATH-269
CNET-201
CNET-222
CNET-124

Introduction to Telephony
Mathematics for Computer Systems 3
Network Devices
Network Services
Network Technologies

Semester 4

CNET-224
COOP-221
GNED-500

Data Communications
Employment Preplacement (3435)
Global Citizenship: From Social Analysis to Social Action
Introduction to Business and ICT
Introduction to Programming
Network Security
Network Support
Routing & Switching

CNET-229
CNET-232
CNET-221
CNET-223
CNET-311

Co-op Work Placement 1 (3435)
Co-op Work Placement 2 (3435)

COOP-222

COOP-311

Semester 5

CNET-307
CNET-301
ENGL-250

IT Project Management
Network Design & Test
Report Writing in a Technical Environment

CNET-306
CNET-305
CNET-231
CNET-304

Unix/Linux
Voice & Video Over IP
WAN Technologies
Wireless Technology

Semester 6

CNET-329
CNET-320
CNET-328
CNET-321
CNET-323
CNET-327
CNET-324
EMPS-101

Business and ICT
Data Centre
Internetwork Troubleshooting
Network Management
Relational Database Management
Technologist project
Wireless Networks
Employment Skills 1 (3425)

At A Glance

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

- Telecommunications
- Network administration
- Network support
- Help desk support
- LAN support
- LAN administration

Electro-Mechanical Engineering Technician – Automation and Robotics

Program Code: 4125

Program Length: 2 years/3 semesters

Credential: Ontario College Diploma

Start: Winter, Summer

Campus: Progress

automation@centennialcollege.ca

416-289-5000, ext. 2356

Program Overview

Qualified college or university graduates of engineering and science programs gain direct admission into semester two of this two-year program. For students starting in the summer, the technician diploma may be obtained in 12 months (three straight semesters). For students starting in the winter, the technician diploma may be obtained in 16 months (three semesters and one summer vacation).

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

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
- Real time industrial application studies with industrial production equipment are provided
- There is a strong Automation and Robotics Student Society

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

ELIGIBILITY

- College diploma or university degree in computer science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 2

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

Semester 3

ROBO-124 Digital Electronics*
GNED-500 Global Citizenship: From Social Analysis to Social Action
ROBO-231 Hydraulic Systems 2
MT-120 Machine Shop
ROBO-232 Pneumatic Circuits*
ROBO-237 Robotic Devices*

Semester 4

GNED-212 Ethics in Technology and the Environment
ROBO-241 Hydraulic Systems 3
ROBO-243 Maintenance and Troubleshooting
ROBO-240 Mechanics and Materials**
ROBO-242 PLC/Pneumatic Interfacing
ENGL-250 Report Writing in a Technical Environment
ROBO-247 Robotic Applications

* 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.

Notes:

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

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

Program	Intake	Diploma	Year 1			Year 2			Year 3			Year 4		
			Fall	Winter	Summer	Fall	Winter	Summer	Fall	Winter	Summer	Fall	Winter	
4125	Summer	Technician			S2	S3	S4							
4125	Winter	Technician		S2	Vacation	S3	S4							
4126	Summer	Technology			S2	S3	S4	Vacation	S5	S6				
4126	Winter	Technology		S2	Vacation	S3	S4	Vacation	S5	S6				
4136	Summer	Technology (PTY)			S2	S3	S4	Vacation	S5	PTY	PTY	Optional	S6	
4136	Winter	Technology (PTY)		S2	Vacation	S3	S4	Vacation	S5	PTY	PTY	Optional	S6	

Legend:

Fall = Start September

Winter = Start January

Summer = Start May

S1, S2 = Semester 1, Semester 2

PTY = Professional Technology Year (Co-op work term)

Electro-Mechanical Engineering Technology – Automation and Robotics

Program Code: 4126

4136 (PTY)

Program Length: 3 years/5 semesters (4126)

3 years/7 semesters(4136)

Credential: Ontario College

Advanced Diploma

Start: Winter, Summer

Campus: Progress

automation@centennialcollege.ca

416-289-5000, ext. 2356

Program Overview

Qualified college or university graduates of engineering and science programs gain direct admission into semester two of this three-year program.

For professional technology year (PTY) students who are starting in the summer, the technology advanced diploma may be obtained in 36 months (five semesters and one summer vacation, plus a 8-month PTY). For students who are starting in the winter, the technology diploma may be obtained in 40 months (five semesters and two summer vacations plus a 8-month PTY).

Special attention is given to embedded systems using microcontrollers, quality control using vision inspection and SPC, continuous feedback control using PID. You will learn integration of automated equipment through its design, fabrication and installation. Courses will provide a thorough understanding of theory, along with practical hands-on laboratory experience.

At A Glance

Graduates are prepared for work in any of the following sectors/industries:

- Automotive
- Food
- Pharmaceutical
- Plastics
- Packaging
- Transportation
- Building automation
- Power generation
- Technical sales

BENEFITS

PROGRAM HIGHLIGHTS

- The option exists for a paid one-year work term
- You will complete a three-year program in two years (plus time spent in one-year work term placement for optional professional technology year)
- 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

CTAB NATIONALLY ACCREDITED PROGRAM

For information on this accreditation, please see page 159.

RECOGNITION AS A CERTIFIED ENGINEERING TECHNICIAN/TECHNOLOGIST

For information on this accreditation, please see page 159.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in science, engineering or a related discipline
- We will consider applicants with a combination of partial diploma or degree and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required.

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and completion of all core courses and minimum 2.5 GPA are required to qualify for COOP 221 and subsequent PTY (Co-op) work placements
- Department Academic standards for PTY/CO-OP eligibility also apply.

PROGRAM OUTLINE

Semester 2

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

Semester 3

ROBO-124 Digital Electronics**
GNED-500 Global Citizenship: From Social Analysis to Social Action
ROBO-231 Hydraulic Systems 2♦
MT-120 Machine Shop
ROBO-232 Pneumatic Circuits**
ROBO-237 Robotic Devices**

Semester 4

GNED-212 Ethics in Technology and the Environment
ROBO-241 Hydraulic Systems 3♦
MT-153 Mechanical Drafting (Inventor)
ROBO-240 Mechanics and Materials**
ROBO-242 PLC/Pneumatic Interfacing♦
ENGL-250 Report Writing in a Technical Environment
ROBO-247 Robotic Applications♦

Semester 5

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

COOP-222

Co-op Work Term 1 (4136)

COOP-331

Co-op Work Term 2 (4136)

Semester 6

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

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

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

Program	Intake	Diploma	Year 1			Year 2			Year 3			Year 4		
			Fall	Winter	Summer	Fall	Winter	Summer	Fall	Winter	Summer	Fall	Winter	
4125	Summer	Technician			S2	S3	S4							
4125	Winter	Technician	S2	Vacation	S3	S4								
4126	Summer	Technology			S2	S3	S4	Vacation	S5	S6				
4126	Winter	Technology	S2	Vacation	S3	S4	Vacation	S5	S6					
4136	Summer	Technology (PTY)			S2	S3	S4	Vacation	S5	PTY	PTY	Optional	S6	
4136	Winter	Technology (PTY)	S2	Vacation	S3	S4	Vacation	S5	PTY	PTY	Optional	S6		

Legend:

Fall = Start September

Winter = Start January

Summer = Start May

S1, S2 = Semester 1, Semester 2

PTY = Professional Technology Year (Co-op work term)

Electronics Engineering Technician

Program Code: 3221

Program Length: 2 years/2 semesters

Credential: Ontario College Diploma

Start: Fall, Winter

Campus: Progress

elec@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

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

The fast-track Electronics Engineering Technician program will 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

PROGRAM HIGHLIGHTS

- You will complete a two-year program in eight months
- Learning occurs in modern labs and lecture facilities
- Theory is reinforced by laboratory work

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 sale.

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

ELIGIBILITY

- College diploma or university degree in science, engineering or a related discipline
- We will consider applicants with a combination of partial diploma or degree and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required.

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

COMM-170/171	College Communications 2
ETEC-204	Electronic Communication Systems
ETEC-101	Electronics Shop Practices
GNED-500	Global Citizenship: From Social Analysis to Social Action
ETEC-203	Measurement & Instrumentation
ETEC-202	Microcontrollers 1
ETEC-205	RF Transmission & Measurements

Semester 4

ETEC-223	Control Systems 1
ETEC-224	Data Communications & Networks
ETEC-221	Electronics 3
EMPS-101	Employment Skills
GNED-212	Ethics in Technology and the Environment
ETEC-222	Microcontrollers 2
ETEC-225	Quality Control & Technician Project

At A Glance

- This program is an active student branch of the Institute of Electrical and Electronics Engineers (IEEE)
- The diploma that is earned is recognized in Canada and abroad, reflecting high standards of learning

Electronics Engineering Technology

Program Code: 3222

3232 (co-op)

Program Length: 3 years/4 semesters (3222)

3 years/6 semesters (3232)

Credential: Ontario College

Advanced Diploma

Start: Fall, Winter

Campus: Progress

elec@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates gain **direct admission into the second year** of a three-year program and receive their technology **advanced diploma in four semesters plus two work terms**.

The Fast-track Electronics Engineering Technology program will 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 a co-op employment option. Academically-qualified students can enhance their education by working two 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

- Modern labs and lecture facilities 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 (IEEE)
- 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

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

ELIGIBILITY

- College diploma or university degree in science, engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum 2.5 GPA and a minimum 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

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

COMM-170/171 College Communications 2
ETEC-204 Electronic Communication Systems
ETEC-101 Electronics Shop Practices
ETEC-203 Measurement & Instrumentation
ETEC-202 Microcontrollers 1
ETEC-205 RF Transmission & Measurements

Semester 4

MATH-285 Calculus
ETEC-223 Control Systems 1
ETEC-224 Data Communications & Networks
ETEC-221 Electronics 3
COOP-221 Employment Preplacement (3232)
GNED-500 Global Citizenship: From Social Analysis to Social Action

ETEC-222 Microcontrollers 2

COOP-222

COOP-331

Semester 5

ETEC-304 Advanced Communication Systems
ETEC-303 Computer Supported Design
ETEC-302 Data Acquisition & Interfacing
ETEC-305 Digital Communications
ETEC-301 Electronic Systems Analysis
PHYS-307 Physics For Electronics
ETEC-306 QA and Project Management
ENGL-250 Report Writing in a Technical Environment

Semester 6

ETEC-323 Control Systems 2
ETEC-321 Digital Signal Processing
ETEC-322 Embedded Systems
GNED-212 Ethics in Technology and the Environment
ETEC-325 Fiber Optics Communications
ETEC-326 Technical Project
ETEC-324 Wireless Networks & Applications
EMPS-101 Employment Skills 1 (3222)

Energy Systems Engineering Technician

Program Code: 3775

Program Length: 2 years/2 semesters

Credential: Ontario College Diploma

Start: Fall

Campus: Progress

energy@centennialcollege.ca

416-289-5000, ext. 2356

Program Overview

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

Society's changing views on energy and environment are transforming the utility and construction sectors. The utility sector is currently undergoing a radical shift in operating practices that opens doors to a range of innovative energy projects using small-scale sources such as solar power to feed electricity, heat and air conditioning to our homes and businesses.

The construction industry has adopted a host of new green building initiatives that are quickly increasing awareness and the use of sustainable, integrated architecture and engineering practices for new buildings. Manufacturers have many new products that provide ways to implement advanced energy control in commercial and residential structures. The challenge and opportunity is to learn how to integrate and use all of these modern sustainable energy technologies in a manner consistent with our urban environments.

Most people currently working in the energy industry are engineers or skilled tradespersons who have accumulated enough on-the-job experience to understand a broad range of technologies. However, a widening skilled-labour shortage and quickly advancing technology in the energy sector are creating huge demand for technicians who possess a breadth of knowledge across the mechanical, electrical, electronic and automation engineering fields.

BENEFITS

PROGRAM HIGHLIGHTS

The Energy Systems Engineering Technician program teaches you the fundamental skills needed to understand energy and its uses in modern society. Highlights include:

- Working on state-of-the-art energy systems
- A strong focus is placed on practical labs to enhance classroom learning
- Applied research and development projects promote innovation skills
- Technical curriculum is complemented by project management skills consistent with our urban environment
- Upon successful completion of the two-year Energy Systems Engineering Technician program, students have the option to enter year three of the Energy Systems Engineering Technology program

CAREER OUTLOOK

Graduates are prepared to apply knowledge of heat transfer, fluid mechanics, and mechanics to industries such as:

- Moulding and casting
- Integrated circuit packaging
- Heat exchanger/boiler design and manufacturer
- Petrochemical processing

At A Glance

Graduates are prepared to:

- Implement energy solutions for commercial and residential building using knowledge of energy systems, energy efficiency and renewable/distributed energy systems
- Operate power plants of various sizes
- Design and maintain heating, ventilating, air conditioning and refrigeration units
- Work with architectural companies to integrate energy technologies into the latest green buildings

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in a program-related discipline

ADDITIONAL REQUIREMENTS

- Transcript and résumé review is required
- English and mathematics skills assessment are required

PROGRAM OUTLINE

Semester 3

ESET-212	Boilers & Auxiliaries
COMM-170/171	College Communications 2
ESET-211	Digital & Power Electronics**
ESET-214	Electrical Shop Practice
ROBO-234	Electronic Devices**
MT-151	Introduction to AutoCad
ROBO-240	Mechanics and Materials*
ESET-213	Renewable Energy System

Semester 4

MATH-285	Calculus***
ESET-121	Fabrication and Installation
ESET-221*	Fluid Mechanics & Dynamics
GNEC-500	Global Citizenship: From Social Analysis to Social Action
ESET-225	Pneumatics/PLC
ESET-223	Power Engineering and HVAC
ESET-222	Wind and Solar Energy

* Course exempt for Mechanical Engineers

** Course exempt for Electrical Engineers

***PLAR

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

Energy Systems Engineering Technology

Program Code: 3776
3777 (PTY)¹

Program Length: 3 years/4 semesters (3776)
3 years/6 semesters (3777)

Credential: Ontario College
Advanced Diploma

Start: Fall

Campus: Progress
energy@centennialcollege.ca
416-289-5000, ext. 2356

Program Overview

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

Society's changing views on energy and environment are transforming the utility and construction sectors. The utility sector is currently undergoing a radical shift in operating practice that opens doors to a range of innovative energy projects using small scale sources such as solar, wind, hydro, fuel cells, gas turbines and biomass to feed electricity, heat and air conditioning to our homes and businesses. The construction industry has adopted a host of new green building initiatives that are quickly increasing awareness and the use of sustainable, integrated architecture and engineering practices for new buildings.

Manufacturers have many new products that provide ways to implement advanced energy control in commercial and residential structures. The challenge and opportunity is to learn how to integrate and use all of these modern sustainable energy technologies in a manner consistent with our urban environments.

The Energy Systems Engineering Technology program teaches you the fundamental skills to understand energy and its uses in modern society. The program is challenging, but offers a unique blend of technical, managerial and entrepreneurial skills that are highly sought after in modern energy and sustainable building companies.

PROFESSIONAL TECHNOLOGY OPTION (PTY)

This program offers an optional professional technology year (PTY). Academically-qualified students enhance their education by working a full calendar year 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

- Opportunity exists to work on state-of-the-art energy systems
- A strong focus is placed on practical labs to enhance classroom learning
- Applied research and development projects promote innovation skills
- Technical curriculum is complemented by project management skills

EDUCATIONAL PARTNERS

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

Our partners are:

- Athabasca University, Science degree
- Lakehead University, Engineering degree

CAREER OUTLOOK

Most people currently working in the energy industry are engineers or skilled tradesperson who have accumulated enough on the job experience to understand a board range of technologies.

However, a widening skilled-labour shortage and quickly advancing technology in the energy sector are creating a huge demand for technicians who possess a breadth of knowledge across the mechanical, electrical, electronic and automation engineering fields.

Graduates are prepared to apply knowledge of heat transfer, fluid mechanics, and mechanics to industries such as:

- Architecture, to integrate energy technologies into the latest green buildings
- Moulding and casting
- Integrated circuit packaging
- Heat exchanger, boiler design and manufacture petrochemical processing.

At A Glance

Graduates are prepared to:

- Implement energy solutions for commercial and residential buildings using knowledge of energy systems, energy efficiency and renewable/distributed energy systems
- Operate power plants of various sizes
- Design and maintain heating, ventilating, air conditioning and refrigeration units
- Work with architectural companies to integrate energy technologies into the latest green buildings

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in a program-related discipline

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

CO-OP (PTY) REQUIREMENTS

- Minimum C grade in COMM-170/171, and completion of all core courses and minimum 2.5 GPA are required to qualify for COOP-221 and subsequent PTY work placements.
- Departmental academic standards for PTY eligibility also apply.

PROGRAM OUTLINE

Semester 3

ESET-212	Boilers & Auxiliaries
COMM-170/171	College Communications 2
ESET-211	Digital & Power Electronics**
ESET-214	Electrical Shop Practice
ROBO-234	Electronic Devices**
MT-151	Introduction to AutoCad
ROBO-240	Mechanics and Materials*
ESET-213	Renewable Energy System*

Semester 4

MATH-285	Calculus***
ESET-121	Fabrication and Installation
ESET-221	Fluid Mechanics & Dynamics*
GNED-500	Global Citizenship: From Social Analysis to Social Action
ESET-225	Pneumatics/PLC
ESET-223	Power Engineering and HVAC
ESET-222	Wind and Solar Energy*

Semester 5

COOP-221	Employment Preplacement (3777)
ESET-313	Energy Auditing & Management
ESET-316	Microcontrollers
ESET-314	Motion Controls and Network
ESET-312	Power Generation 1
ESET-315	Refrigeration and HVAC
MT-309	Thermodynamics 1

COOP-222

Co-op Work Term 1 (3777)

COOP-331

Co-op Work Term 2 (3777)

Semester 6

ESET-325	Building Automation Systems
ESET-323	Distributed Generation and Transmission
ESET-327	Energy Systems Engineering
ESET-326	Final Project
ESET-322	Power Generation 2
ENGL-250	Report Writing in a Technical Environment
ESET-324	Technical Elective

* Course exempt for Mechanical Engineers

** Course exempt for Electrical Engineers

*** PLAR

♦ Minimum C grade required for technologist graduation.

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

¹ Professional Technology Year (Co-op Work Term)

Environmental Protection Technician

Program Code: 4221

Program Length: 2 year/2 semesters

Credential: Ontario College Diploma

Start: Fall

Campus: Morningside

enviro@centennialcollege.ca

416-289-5000, ext. 8123

Program Overview

Qualified college or university graduates gain direct admission into the third semester of this two year technician 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.

Students learn to use the tools and equipment needed in microbiology, ecological field sampling, analytical chemistry and surveying. Students gain laboratory skills in water quality testing, and ground-water movement.

BENEFITS

PROGRAM HIGHLIGHTS

- Graduates are qualified to write the Ontario Ministry of the Environment Operator-in-Training exam
- Transfer credits/advanced standing may be awarded for previous science or engineering education
- Opportunities exist for participation in local conservation and restoration activities

CAREER OUTLOOK

- Environmental companies and government organizations 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.

CERTIFICATION

Graduates of the technician program can write the Ontario Ministry of the Environment Operator in Training (OIT) and Water Quality Analyst (WQA) exams. Graduates can also apply to register with the Ontario Association of Certified Engineering Technicians and Technologist (OACETT).

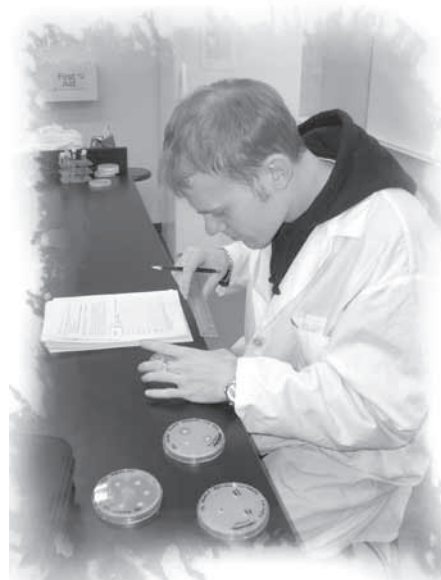
CTAB NATIONALLY ACCREDITED PROGRAM

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



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



ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in science, engineering, or related discipline

ADDITIONAL REQUIREMENTS

- English Skills assessment is required
- For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

BAM-108	Biological Techniques
COMM-170/171	College Communications 2
BI-230	Ecology
CH-121	Organic Chemistry
PC-124	Physics for Environmental
PW-231	Soils and Groundwater
PW-232	Topographical Surveying

Semester 4

CH-207	Analytical Chemistry
BI-240	Applied Environmental Microbiology
PW-243	Engineering Equip & Processes
VS-242	Environmental Legislation & Regulations
GNED-500	Global Citizenship: From Social Analysis to Social Action
ENGL-250	Report Writing in a Technical Environment
PW-242	Water Quality Control

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: 3 years/4 semesters (4222)

3 years/6 semesters (4232)

Credential: Ontario College

Advanced Diploma

Start: Fall

Campus: Morningside

enviro@centennialcollege.ca

416-289-5000, ext. 8123

Program Overview

Qualified college or university graduates gain direct admission to the third semester of this three year program, which will prepare them for the constantly changing field of environmental technology. Practical training in the three foundation disciplines of chemistry, biology and civil engineering means that you can understand and manage complex environmental problems. This unique combination of technical skills will greatly increase your career options.

Students 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 OPTION

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

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.

BENEFITS

PROGRAM HIGHLIGHTS

- Take part in a program that is the recipient of Centennial College's President's Academic Program Recognition Award for Outstanding Student Satisfaction
- Graduates are qualified to write the Ontario Ministry of the Environment Operator-in-Training exam
- Opportunities exist for participation in local conservation and restoration activities
- Graduates can apply to register with the Ontario Association of Certified engineering Technicians and Technologist (OACETT).

CAREER OUTLOOK

- Environmental companies and government organizations hire Centennial 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.

CERTIFICATION

After semester 4 courses are completed, students can write the Ontario Ministry of the Environment Operator-in-Training (OIT) and Water Quality Analyst (WQA) exams.

CTAB NATIONALLY 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



The Ontario Association of Certified Engineering Technicians and Technologists (OACETT) recognizes the Environmental Protection Technology program as

meeting all the academic requirements for certification in the Technologist category.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in science, engineering, or related discipline

ADDITIONAL REQUIREMENTS

- English Skills assessment is required
- For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA 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

BAM-108 Biological Techniques
COMM-170/171 College Communications 2
BI-230 Ecology*
CH-121 Organic Chemistry*
PC-124 Physics for Environmental
PW-231 Soils and Groundwater*
PW-232 Topographical Surveying*

Semester 4

CH-207 Analytical Chemistry*
BI-240 Applied Environmental Microbiology*
COOP-221 Employment Preplacement (4232)
PW-243 Engineering Equip & Processes*
VS-242 Environmental Legislation & Regulations*
GNED-500 Global Citizenship: From Social Analysis to Social Action
ENGL-250 Report Writing in a Technical Environment
PW-242 Water Quality Control*

COOP-222

Co-op Work Term 1 (4232)
(With the option to have Co-op Work Term 2 follow immediately after.)

Semester 5

CH-315 Analytical Instrumentation
BI-310 Bioregionalism
PW-312 Civil Engineering Design & Construction. Practices
CT-121 Computer Aided Drafting 1 – Civil
VS-353 Environmental Audits, Sampling & Data Management

Semester 6

AH-360 Applied Hydrology/Spills Mgmt.
BI-311 Applied Microbiological Analysis
VS-360 Environmental Project (Industry)
VS-361 Geographic Information System
CH-360 Hazardous Wastes & Modern Industrial Processes

COOP-331

Co-op work Term 2 (4232)

*minimum C grade required for entry into semester 5.

Food Science Technology

Program Code: 3631 **NEW**
Program Length: 3 years/4 semesters
Credential: Ontario College
Advanced Diploma
Start: Fall, Winter
Campus: Morningside
fst@centennialcollege.ca
416-289-5000, ext. 8123

Program Overview

The Food Science Technology program integrates and applies knowledge within the disciplines of chemistry, engineering, biology, and nutrition to preserve, process, package, and distribute foods that are healthy, affordable, desirable, and safe to eat. The program will prepare students for food science careers in areas including quality control/assurance, food plant management, product development, food industry regulation and inspection, operations and maintenance of automated equipment.

BENEFITS

PROGRAM HIGHLIGHTS

- comprehensive laboratory training, from foundational to professional skills
- practical, hands on experience is acquired with a wide range of instrumentation
- Complete a three year program in two years
- common first year with Biotechnology and Environmental Protection diploma programs provides time to choose your specialty projects and enhance teamwork skills.

ADMISSION REQUIREMENTS

ELIGIBILITY

- College advanced diploma or a university degree in a chemistry/biology or engineering related discipline

ACADEMIC REQUIREMENTS

- Transcript review is required
- English skills assessment is required

PROGRAM OUTLINE

Semester 3

COMM-170/171 College Communications 2
BI-208 Food Microbiology*
FST-211 Introduction to Food Science
CH-121 Organic Chemistry*
PHYS-210 Physics for Food Science

Semester 4

CH-222 Biochemistry 1*
CH-203 Food Chemistry*
FST-222 Food Processing & Technology I
FST-221 Food Science Project I
FST-223 Quality Assurance I
ENGL-250 Report Writing in a Technical Environment

Semester 5

FST-314 Food Analysis
FST-313 Food Biotechnology
FST-311 Food Processing & Technology II
FST-315 Food Regulations
GNED-500 Global Citizenship: From Social Analysis to Social Action
FST-312 Quality Assurance II

Semester 6

BI-304 Environmental Microbiology
FST-323 Food Product Development
FST-321 Food Science Project II
FST-324 HACCP & GMPs
FST-322 Plant Sanitation

**minimum C grade required for entry into Semester 5.*

Health Informatics Technology

Program Code: 3528
3538 (co-op)
Program Length: 3 years/4 semesters (3528)
3 years/6 semesters (3538)
Credential: Ontario College
Advanced Diploma
Start: Fall, Winter
Campus: Progress
is@centennialcollege.ca
416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with a background in software gain **direct admission into semester three** of the three-year program and receive their Health Informatics Technology **advanced diploma in four semesters plus two work terms.**

This advanced diploma in Health Informatics Technology will incorporate knowledge of both information technology and healthcare systems. The skills acquired by the graduates will enable them to design, develop, modify and test software for healthcare applications.

As a graduate from this program, you will be able to analyze and model data, develop healthcare databases and apply different computer medical-imaging techniques. You will also use tools, algorithms and health informatics methods for hospitals, schools, healthcare agencies and public health departments.

The coursework will emphasize object-oriented software design methodologies, user-oriented interface design, structure of healthcare information systems, telehealth, data security and privacy in healthcare systems. It will also focus on technologies such as C#, Java, Java EE, Oracle, MS-SQL Server, Microsoft's .NET, Rational/WebSphere, Data warehousing and Data mining, and BI tools in healthcare systems.

To emphasize the applied focus of the curriculum, the program will include two software development projects in the field of health informatics. These real world business applications will require students to utilize all the technical, systems, and business skills gained during your studies.

This program's co-op component allows students to gain hands-on experience in two work terms. Academically qualified students enhance their education by working 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

- The opportunity exists for eight months paid co-op experience
- Courses are delivered using leading-edge technology geared to industry standards
- The program provides technical electives and project-based learning
- Knowledgeable and approachable faculty members have diverse business experience and academic credentials

CAREER OUTLOOK

Graduates of this program are prepared for entry-level positions in a variety of environments, including:

- Clinical
- Research
- Educational
- Graduates of this program can work as:
 - Software developers
 - Health data analysts
 - Database developers
 - Systems implementation specialists
 - Business/systems analysts

CTAB NATIONALLY ACCREDITED PROGRAM

The Health Informatics 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 (CATB).

RECOGNITION AS A CERTIFIED ENGINEERING TECHNOLOGIST

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

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, information technology, software engineering or a related discipline
- We will consider applicants with a combination of partial diploma or degree and relevant work experience

At A Glance

Organizations that have hired our software diploma graduates include:

- Ontario health networks
- Ontario hospitals
- Government

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA 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

COMP-214	Advanced Database Concepts
COMM-170/171	College Communications 2
GNED-500	Global Citizenship: From Social Analysis to Social Action
COMP-246	Object Oriented Software Engineering
COMP-380	Structure of HCIS
COMP-229	Web Application Development

Semester 4

COOP-221	Employment Preplacement (3538)
COMP-228	JAVA Programming
MATH-210	Linear Algebra and Statistics
CNET-124	Network Technologies
COMP-212	Programming 3
COMP-311	Software Testing and Quality Assurance
COMP-381	Tools, Algorithms & Methods for HCIS
COOP-222	Co-op Work Placement 1 (3538)
COOP-331	Co-op Work Placement 2 (3538)
Semester 5	
ENGL-253	Advanced Business Communications
CNET-329	Business and ICT
COMP-382	Computer Techniques in Medical Imaging

GNED	General Education Elective
CNET-307	IT Project Management
COMP-231	Software Development Project I
COMP-321	Systems Integration
ELECT	Professional Elective*

Semester 6

COMP-383	Data Security and Privacy Policies in HCIS
COMP-309	Data Warehousing and Data Mining in HCIS
COMP-313	Software Development Project 2\
ELECT	Professional Elective*
ELECT	Professional Elective*
COMP-384	Telehealth
EMPS-102	Employment Skills 2

*Professional Electives

COMP-303	Java EE Programming
COMP-304	Wireless Programming
COMP-306	Web Services Programming

The dynamic curriculum presented here including elective options will be revised as appropriate to retain its currency. Internal curriculum development/review is ongoing.

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
thecentre@centennialcollege.ca
416-289-5000, ext. 8824

Program Overview

Centennial's unique Fast-Track Journalism program is an accelerated course designed for university and college graduates who enter in the 3rd semester of the 3 year Journalism program. It will take you from the classroom to the newsroom, with an exciting field placement. 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 will::

- Learn to write and tell stories in an energetic, dynamic and hands-on environment, led by a faculty of seasoned professionals and educators
- Develop a portfolio of published stories and photos as you apply your skills in a real newsroom, producing an online publication, and an award-winning community newspaper, and radio-television news.
- Develop new multiplatform 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

PROGRAM HIGHLIGHTS

- Gain hands-on experience with The East Toronto Observer, an award-winning community newspaper, and The Toronto Observer, online edition
- One-on-one interaction occurs between faculty and students in an ultra modern professional newsroom
- 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 towards further study.

Our partner is: Athabasca University, Professional Arts degree (Communication Studies)

CAREER OUTLOOK

Companies that have hired program graduates include:

- CTV News
- Canoe.ca
- 680 News
- Toronto Star
- TSN

TESTIMONIAL

"Centennial was a great place for me to connect with people in the industry. My teachers at Centennial helped me get my first internship at CTV and also to land an internship in Washington, DC. They were always supportive of my enthusiasm which is all you can really ask for in a program,"

Kris Reyes, CBC News reporter and Graduate

At A Glance

Note: Minimum C grade required in all courses.

Companies that have hired program graduates include:

- Canadian Living Online
- Toronto Sun
- Global TV
- National Post

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in any discipline
- We will consider applicants with partial post-secondary education (minimum two years) and relevant work experience

ADDITIONAL REQUIREMENTS

Complete either of the following options:

- Submit a portfolio of Journalism related work along with a resumé and references
 - » You should include 6 to 10 samples – you may include clippings, printouts or airchecks of published or broadcast work (from an established — non-hobbyist — newspaper, news website or radio/TV outlet... including university news media)
- Attend a program admission session where you will:
 - » Complete a two-part writing test
 - » Submit a portfolio of writing samples; 6-8 pieces, academic essay extracts or creative writing
 - » Submit an up-to-date resumé

Note: Ask us about distance testing.

FIELD PLACEMENT REQUIREMENTS

- Students work closely with a placement coordinator to obtain their own field placement.

PROGRAM OUTLINE

Semester 3

JO-223	Journalism Law & Ethics
JO-218	Imaging: Journalism
JO-222	Introduction to Online News
JO-206	Journalism Design
JO-211	News Reporting

Semester 4

JO-205	Advanced Interviewing Techniques
JO-203	Magazine/Freelance Journalism
JO-220	Multiplatform Journalism
JO-210	News Laboratory 1
JO-217	Radio News

Semester 5

JO-313	Beat Reporting
JO-318	Journalism Career Management
JO-316	New Laboratory 2
JO-317	Television News

Semester 6

JO-350	Field Placement
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Massage Therapy Refresher

Program Code: 5120
Program Length: 1 year/2 semesters
Credential: Ontario College
Advanced Diploma
Start: Summer
Campus: Morningside
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 out-of-province trained 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 skills 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

PROGRAM HIGHLIGHTS

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

CAREER OUTLOOK

Massage Therapy is a regulated health profession in Ontario practiced 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.

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.

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

ADMISSION REQUIREMENTS

ELIGIBILITY

- Ontario Secondary School Diploma (OSSD) or equivalent, or mature student status (19 years or older)

ACADEMIC REQUIREMENTS

- College of Massage Therapists of Ontario credential assessment, or
- 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

FIELD PLACEMENT REQUIREMENTS

- Obtain an annual clear police check with vulnerable sector screening
- Provide proof of immunization requirements; a standard form will be issued by the program coordinator following confirmation of an offer of admission to the program
- Successfully complete and annually renew a recognized course in CPR (health care provider level)
- Successfully complete a recognized course in standard first aid
- Attend mask fit testing that is provided by Centennial College (shaving of portion of face maybe required to meet safety standards)

All of the above requirements must be in effect for the duration of each placement.

PROGRAM OUTLINE

Semester 1

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

Semester 2

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

**satisfactory grade required in these courses*

Note: minimum C grade required in all courses.

Mechanical Engineering Technician – Design

Program Code: 3725

Program Length: 2 year/2 semesters

Credential: Ontario College Diploma

Start: Fall

Campus: Progress

mechanical@centennialcollege.ca

416-289-5000, ext. 2356

Program Overview

Qualified college or university graduates gain direct admission into semester three of 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

PROGRAM HIGHLIGHTS

- Gain experience in machine shop operation, tool design, plus computer numerical control programming
- Industry-current software instruction in AutoCAD, Inventor and Mastercam is included
- State-of-the-art CAD/CAM equipment is used
- Approximately 60-40 balance between theory and practice
- The project-driven program gives you practical experience in designing, building and 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 includes: Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers

CAREER OUTLOOK

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

- Junior engineers
- Assistants to professional engineers
- Quality control
- Mechanical 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

ELIGIBILITY

- College diploma or university degree in mechanical engineering or a related discipline

ADDITIONAL REQUIREMENTS:

- Transcript and resumé review is required
- English and mathematics skills assessment is required

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 3

MT-201	CNC Fundamentals & Programming
COMM-170/171	College Communications 2
MT-318	Fluid Mechanics 1
MATH-316	Statistics
MT-204	Strength of Materials
MATH-180	Technology Mathematics 3

Semester 4

MT-224	Applied Dynamics
GNE-500	Global Citizenship: From Social Analysis to Social Action
MT-225	Hydraulics & Pneumatics
MT-258	Project: Design & Construction
MT-257	Quality Assurance
ENGL-250	Report Writing in a Technical Environment
MT-228	Tool Design

Note: Fast-track students will be placed in the appropriate English and math level based on skills assessment results



Mechanical Engineering Technology – Design

Program Code: 3735
3745 (PTY)¹
Program Length: 3 years/4 semester (3735)
3 years/6 semesters (3745)
Credential: Ontario College
Advanced Diploma
Start: Fall
Campus: Progress
mechanical@centennialcollege.ca
416-289-5000, ext. 2356

Program Overview

Qualified college or university graduates gain direct admission into semester three of 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 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 time is spent on project work. Projects simulate workplace assignments, relating classroom theory to the actual design and manufacture.

This program option features a professional technology year component. Academically-qualified can students enhance their education by working two 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

PROGRAM HIGHLIGHTS

- Gain experience in machine shop operation, tool design, plus computer numerical control programming
- Industry-current software instruction in AutoCAD, Inventor and Mastercam is included
- State-of-the-art CAD/CAM equipment is used
- Approximately 60-40 balance between theory and practice
- The project-driven program gives you practical experience in designing, building and 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 includes: Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers.

CAREER OUTLOOK

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

- Junior engineers
- Assistants to professional engineers
- CAD operators
- Mechanical testers

CTAB NATIONALLY 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

ELIGIBILITY

- College diploma or university degree in mechanical engineering or a related discipline

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment is required

For information on the admission process, please see p. 18.

CO-OP (PTY) REQUIREMENTS

- Minimum 2.5 GPA and completion of all core courses and a C grade in COMM-170/171 are required to qualify for COOP-221 and subsequent PTY (Co-op) work placement
- departmental academic standards for PTY (Co-op) eligibility also apply

PROGRAM OUTLINE

Semester 3

MT-201	CNC Fundamentals & Programming
COMM-170/171	College Communications 2
MATH-231	Differential Calculus and Analytic Geometry*
MT-318	Fluid Mechanics 1*
MATH-316	Statistics
MT-204	Strength of Materials*

Semester 4

MT-224	Applied Dynamics*
GNED-500	Global Citizenship: From Social Analysis to Social Action
MT-225	Hydraulics & Pneumatics
MT-258	Project: Design & Construction*
ENGL-250	Report Writing in a Technical Environment*
MT-228	Tool Design

Semester 5

BUSN-129	Business Operations
MT-305	Dynamics of Machines and Mechanisms*
COOP-221	Employment Preplacement(3745)
MT-338	Fluid Mechanics 2*
MATH-232	Integral Calculus*
MT-335	Machine Design 1*
MT-309	Thermodynamics 1*

COOP-222 Co-op Work Term 1 (3745)

COOP-331 Co-op Work Term 2 (3745)

Semester 6

MT-324	Advanced Project: Design & Construction*
MT-300	FEA Applications
MT-323	Instrumentation & Control
MT-342	Machine Design 2*
MT-257	Quality Assurance
MT-339	Thermodynamics 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 (Co-op Work Term)

Mechanical Engineering Technology – Industrial

Program Code: 3747

3748 (PTY)¹

Program Length: 3 years/4 semesters (3747)

3 years/6 semesters (3748)

Credential: Ontario College

Advanced Diploma

Start: Fall

Campus: Progress

mechanical@centennialcollege.ca

416-289-5000, ext. 2356

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.

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 professional technology year component. Academically-qualified students can enhance their education by working two 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

PROGRAM HIGHLIGHTS

- Gain experience in machine shop operation, tool design, plus computer numerical control programming
- Industry-current software instruction in AutoCAD, Inventor and Mastercam is included
- State-of-the-art CAD/CAM equipment is used
- Approximately 60-40 balance between theory and practice
- The project-driven program gives you practical experience in designing, building and 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 includes: Thermodynamic Fluid Power testing modules, and Tensile, Hardness and Impact Testers.

CAREER OUTLOOK

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

- Plant facility technologists
- Assistants to professional engineers
- CAD operators
- Mechanical testers

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in mechanical engineering or a related discipline

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment is required

For information on the admission process, please see p. 18.

CO-OP (PTY) REQUIREMENTS:

- Minimum 2.5 GPA and completion of all core courses and a minimum C grade in COMM-170/171 are required to qualify for COOP-221 and subsequent PTY work placements
- Departmental academic standards for PTY eligibility also applies

PROGRAM OUTLINE

Semester 3

MT-201	CNC Fundamentals & Programming
COMM-170/171	College Communications 2
MATH-231	Differential Calculus and Analytic Geometry*
MT-318	Fluid Mechanics 1*
MATH-316	Statistics
MT-204	Strength of Materials*

Semester 4

MT-224	Applied Dynamics*
GNE-500	Global Citizenship: From Social Analysis to Social Action
MT-225	Hydraulics & Pneumatics
MT-258	Project: Design & Construction*
MT-257	Quality Assurance
ENGL-250	Report Writing in a Technical Environment
MT-228	Tool Design

Semester 5

MTID-312	Advanced Quality Concepts
COOP-221	Employment Preplacement (3748)
MATH-232	Integral Calculus*
MT-335	Machine Design 1*
MTID-311	Operational Excellence
MTID-313	Project Management

COOP-222

Co-op Work Term 1 (3748)

COOP-331

Co-op Work Term 2 (3748)

Semester 6

MT-324	Advanced Project: Design & Construction*
MTID-323	Facility Planning & Workcell Design
MTID-322	Manufacturing Automation
MTID-324	Principles of Accounting and Financial Management
MTID-321	Shop Floor Management & Continuous Improvement

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 Bridging Program for Internationally-educated Nurses

Program Code: 9352

Program Length: 1 year/3 semesters

Credential: Ontario College Diploma

Start: Fall, Winter

Campus: Morningside

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, or RPNs who hold a certificate and wish to upgrade to an Ontario College diploma, or RPNs who have been out of practice for ten years or less and need a refresher program.

Program duration is three semesters which includes 15 weeks of consolidation experience. The program focuses on assisting you to develop your knowledge, critical thinking, communication, research and leadership skills, and to apply these skills in acute healthcare 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 may 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

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 to an academic pathway with a degree completion (Bridging to University Nursing program)

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 caring process and provide hands-on nursing care. With additional courses, RPNs are able to work in more specialized settings including operating rooms and clinics.

ADMISSION REQUIREMENTS

ELIGIBILITY

- Completion of a post-secondary certificate in practical nursing
- Current College of Nurses of Ontario certificate of registration.
- International students are required to submit their letter from the College of Nurses, stating the courses required to write the practical nurse registration exams.
- Applicants must have practiced as a nurse, or completed their nursing education, within the last 10 years as indicated in the letter of direction from the College of Nurses of Ontario (CNO).

NON-ACADEMIC REQUIREMENTS

- Interview with Program Coordinator required prior to submitting an application
- Transcript and resumé review may be required
- English assessment is mandatory and math skills assessment may be required

FIELD PLACEMENT REQUIREMENTS

- Annual clear police check with vulnerable sector screening
- Completion of immunization requirements (immunization review form issued by the program coordinator)
- Successful completion and annual renewal of a recognized course in CPR (Health Care Provider Level)
- Successful completion of a recognized course in Standard First Aid
- Mask fit testing will be provided by Centennial College
- All of the above requirements must be in effect for the duration of each placement.

For information on the admission process, please see p. 18.

PROGRAM OUTLINE

Semester 1

COMM-151	College Communications 1 (ESL) for Internationally Educated Nurses
IEPN-126	Health Assessment: A Holistic Approach
IEPN-123	Introduction to Nursing in Ontario
IEPN-125	Nursing Practice in Ontario 1
PATH-122	Pathophysiology/ Pharmacotherapeutics 1
IEPN-124	Theoretical Concepts in Nursing 1

Semester 2

COMM-170/171	College Communications 2
IEPN-223	Issues, Trends and Leadership in Nursing
IEPN-225	Nursing Practice in Ontario 2
PATH-222	Pathophysiology/ Pharmacotherapeutics 2
IEPN-224	Theoretical Concepts in Nursing 2

Semester 3

PNUR-250	Practical Nursing Pregraduate Clinical Applications
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Note: All courses require a minimum C grade

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
- Courses emphasize leadership, teaching and learning, professionalism, advocacy, critical thinking and ethical decision making
- For students wishing part time delivery, please refer to our Continuing Education calendar program #7995

Software Engineering Technician

Program Code: 3428

Program Length: 2 year/2 semesters

Credential: Ontario College Diploma

Start: Fall, Winter

Campus: Progress

is@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with a background in software gain **direct admission into semester three** of the two-year program and receive their Software Engineering Technician **diploma in one year/ two semesters**.

The Fast-track Software Engineering Technician program prepares graduates for a variety of jobs in the software industry. You will acquire solid knowledge of software engineering methodologies, programming languages, design and algorithm concepts, data management tools and networking fundamentals.

This program is ideal for those learners who are seeking a shorter-term program for timely re-entry into the workplace. The course work will emphasize object-oriented software design methodologies, user-oriented interface design, C#, Java, Oracle, MS-SQL Server, Microsoft's .NET and Software Testing and QA.

To underscore the applied focus of the curriculum, the program will include one software development project. This real-world business application will require students to utilize all the technical and business skills acquired during their studies for building higher quality software.

BENEFITS

PROGRAM HIGHLIGHTS

- Courses are delivered using leading-edge technology geared to industry standards
- Knowledgeable and approachable faculty has diverse business experience and academic credentials
- Smaller classes allow for more individualized learning

CAREER OUTLOOK

Program graduates are prepared for entry-level positions as:

- Computer programmers
- Software developers
- Software testers
- Systems analysts
- Web applications developers
- Database administrators
- Applications or software support

Companies that have hired technology program graduates include:

- Scotiabank
- Toronto Transit Commission (TTC)
- Toronto Stock Exchange
- Government

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, information technology, software engineering or a related discipline
- We will consider applicants with a combination of partial diploma or degree and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA is required to qualify for COOP-221 and subsequent co-op work placements

PROGRAM OUTLINE

Semester 3

COMP-214	Advanced Database Concepts
COMM-170/171	College Communications 2
EMPS-101	Employment Skills
GNE-500	Global Citizenship: From Social Analysis to Social Action
COMP-228	JAVA Programming
COMP-246	Object Oriented Software Engineering
COMP-229	Web Application Development

Semester 4

ENGL-253	Advanced Business Communications
GNE-500	General Education Elective
COMP-212	Programming 3
COMP-231	Software Development Project I
COMP-311	Software Testing and Quality Assurance
ELECT	Professional Elective*
ELECT	Professional Elective*

*Professional Electives

CNET-124	Network Technologies
CNET-329	Business & ICT
COMP-305	Game Programming 1
COMP-316	Software Testing Automated Tools
COMP-317	Software Quality Assurance and Test Management
COMP-381	Tools Algorithms and Methods for HCIS
COMP-382	Computer Techniques and Medical Imaging
COMP-396	Game Programming 2

Software Engineering Technology

Program Code: 3429

3439 (Co-op)

Program Length: 3 years/4 semesters (3429)

3 years/6 semesters (3439)

Credential: Ontario College

Advanced Diploma

Start: Fall, Winter

Campus: Progress

is@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with a background in software gain **direct admission into semester three** of the three-year program and receive their Software Engineering Technology **Advanced diploma in four semesters, plus two work terms.**

The Fast-track Software Engineering Technology program will prepare you to design, develop and maintain software systems. You will learn modern programming languages, design and algorithm concepts and data management tools. The acquired knowledge and hands-on experience will enable you to design and develop various kinds of software applications, human-computer interfaces and enterprise information systems.

The course work will emphasize object-oriented software design methodologies, user-oriented interface design, QA, C#, Java, Java EE, Oracle, MS-SQL Server, Microsoft's .NET, RIA Technologies such as Adobe's Flex and Microsoft's Silverlight, Rational/WebSphere, Mobile Computing and Software Security.

To underscore the applied focus of the curriculum, the program will include two software development projects .

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

BENEFITS

PROGRAM HIGHLIGHTS

- Opportunity exists for eight months of paid co-op experience
- Courses are delivered using leading-edge technology geared to industry standards
- Technical electives and project-based learning are a key component
- Knowledgeable and approachable faculty members have diverse business experience and academic credentials

CAREER OUTLOOK

Graduates from this program are prepared for entry-level positions as:

- Software developers
- Software testers
- Computer programmers
- Systems analysts
- Business analysts
- Web application developers
- Database administrators
- Applications or software supports

CTAB NATIONALLY ACCREDITED PROGRAM

The Software 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 TECHNOLOGIST



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

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, information technology, software engineering or a related discipline
- We will consider applicants with a combination of partial diploma or degree and relevant work experience

ADDITIONAL REQUIREMENTS

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA 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

COMP-214	Advanced Database Concepts
COMM-170/171	College Communications 2
GNED-500	Global Citizenship: From Social Analysis to Social Action
COMP-228	JAVA Programming
COMP-246	Object Oriented Software Engineering
GNED-219	The Canadian Workplace Experience
COMP-229	Web Application Development

Semester 4

ENGL-253	Advanced Business Communications
CNET-329	Business and ICT
COOP-221	Employment Preplacement (3439)
MATH-210	Linear Algebra and Statistics
CNET-124	Network Technologies
COMP-212	Programming 3
COMP-311	Software Testing and Quality Assurance
ELECT	Professional Elective*

COOP-222

Co-op Work Placement 1 (3439)

COOP-331

Co-op Work Placement 2 (3439)

Semester 5

CNET-307	IT Project Management
COMP-303	Java EE Programming
COMP-231	Software Development Project I
COMP-321	Systems Integration
ELECT	Professional Elective*
ELECT	Professional Elective*

Semester 6

COMP-309	Data Warehousing and Data Mining in HCIS
COMP-308	Emerging Technologies
COMP-313	Software Development Project 2
COMP-307	Software Security
ELECT	Professional Elective*
COMP-306	Web Services Programming
EMPS-102	Employment Skills 2 (3429)

*Professional Electives

COMP-304	Wireless Programming
COMP-305	Programming 1
COMP-381	Tools Algorithms and Methods for HCIS
COMP-382	Computer Techniques in Medical Imaging
COMP-392	Advanced Graphics
COMP-396	Game Programming 2

At A Glance

Organizations that have hired Software Technology diploma graduates include:

- CIBC
- ManuLife
- Royal Bank
- Scotiabank
- Toronto Transit Commission (TTC)
- Toronto Stock Exchange

Software Engineering Technology – Interactive Gaming

Program Code: 3129

3139 (Co-op)

Program Length: 3 years/4 semesters (3129)

3 years/6 semesters (3139)

Credential: Ontario College

Advanced Diploma

Start: Fall

Campus: Progress

is@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Qualified college or university graduates with a background in software gain **direct admission into the second year** of the three-year program and receive their Software Engineering Technology – Interactive Gaming **Advanced diploma in four semesters, plus two work terms**.

The Fast-track Software Engineering Technology – Interactive Gaming program will prepare you to work as a software developer in the game software industry. Graduates will be able to participate in various phases of the game programming life cycle, such as game design, three-dimensional graphics programming and multiplayer online game programming.

The course work in the program will emphasize object-oriented software design methodologies, user-oriented interface design, Microsoft's .NET, DirectX, XNA, Flash, RIA Technologies such as Adobe's Flex and Microsoft's Silverlight, Software Testing and QA, C#, Java, Java EE, Oracle, MS-SQL Server and Rational/WebSphere. To underscore the applied focus of the curriculum, the program will include two software development projects.

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

At A Glance

Companies hiring technology graduates include:

- SpongeLab
- Royal Bank
- Scotiabank
- Toronto Transit Commission (TTC)
- Toronto Stock Exchange
- Government

BENEFITS

PROGRAM HIGHLIGHTS

- Option exists for eight months paid co-op experience
- Courses are delivered using leading-edge technology geared to industry standards
- There are technical electives and project-based learning
- Knowledgeable and approachable faculty members have diverse business experience and academic credentials

CAREER OUTLOOK

Program graduates will be prepared for entry-level positions as:

- Software developers
- Software testers
- Game programmers
- Computer programmers
- Systems analysts
- Business analysts
- Web application developers
- Database administrators
- Applications or software support

CTAB NATIONALLY ACCREDITED PROGRAM

The Software Engineering Technology – Interactive Gaming 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 TECHNOLOGIST



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

ADMISSION REQUIREMENTS

ELIGIBILITY

- College diploma or university degree in computer science, information technology, software engineering or a related discipline
- We will consider applicants with a combination of partial degree or diploma and relevant work experience

ADDITIONAL REQUIREMENTS:

- Transcript and resumé review is required
- English and mathematics skills assessment are required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA 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

COMP-214	Advanced Database Concepts
COMM-170/171	College Communications 2
GNED-500	Global Citizenship: From Social Analysis to Social Action
COMP-391	Introduction to Game and Simulation
COMP-246	Object Oriented Software Engineering
COMP-229	Web Application Development

Semester 4

COOP-221	Employment Preplacement (3139)
COMP-305	Game Programming 1
COMP-228	JAVA Programming
MATH-210	Linear Algebra and Statistics
CNET-124	Network Technologies
COMP-212	Programming 3
COMP-311	Software Testing and Quality Assurance

COOP-222

Co-op Work Placement 1 (3139)

COOP-331

Co-op Work Placement 2 (3139)

Semester 5

COMP-392	Advanced Graphics
CNET-329	Business and ICT
COMP-396	Game Programming 2
GNED	General Education Elective
COMP-303	Java EE Programming
COMP-394	Practical Game Design
COMP-231	Software Development Project I

Semester 6

ENGL-253	Advanced Business Communications
COMP-308	Emerging Technologies
CNET-307	IT Project Management
COMP-395	Simulation Design
COMP-313	Software Development Project 2
ELECT	Professional Elective*
ELECT	Professional Elective*
EMPS-102	Employment Skills 2 (2129)

*Professional Electives

COMP-304	Wireless Programming
COMP-305	Programming 1
COMP-381	Tools Algorithms and Methods for HCIS
COMP-382	Computer Techniques in Medical Imaging
COMP-392	Advanced Graphics
COMP-396	Game Programming 2

Bridging to Software Systems Design

Program Code: 0111

Program Length: 2 years/4 semesters

Credential: Bachelor of Applied Information Sciences Degree

Start: Fall

Campus: Progress

sws@centennialcollege.ca

416-289-5000, ext. 3556

Program Overview

Centennial College is making it possible to complete the Software System Design (SSD) degree in two years.

Computer program/analyst or software engineering graduates from Centennial or from a similar program from another college may be eligible to **obtain this Bachelor of Applied Information Sciences in two years.**

BENEFITS

PROGRAM HIGHLIGHTS

- Join the fifth semester of Software Systems Design (SSD) degree starting every fall and graduate in two years

CAREER OUTLOOK

- Software developers
- Software testers
- Game programmers
- Computer programmers
- Systems analysts
- Business analysts
- Web application developers
- Database administrators
- Applications or software support

ADMISSION REQUIREMENTS

ELIGIBILITY

- Three-year computer programmer/analyst diploma from an Ontario college, or a computer science/information technology/software engineering degree from a recognized institution with a GPA of 2.8 or higher

ADDITIONAL REQUIREMENTS

- English proficiency will be considered
- Transcript review is required

For information on the admission process, please see p. 18.

CO-OP REQUIREMENTS

- Minimum C grade in COMM-170/171, and minimum 2.5 GPA 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 5

SWS-314 Database Programming
SWS-312 Liberal Studies Elective**
LIBELECT Logic and Problem-solving Strategies
MTH-110 Programming for Network Systems
SWS-311 Project Management 1
BUS-310 Software Standards, Testing & Maintenance
SWS-310

Semester 6

SWS-322 Architecting Database Solutions
NET-112 Computer Architecture
MTH-120 Discrete Mathematics 1
MTH-220 Discrete Mathematics 2
BUS-411 Entrepreneurship in the New Economy
SWS-321 Software Design Patterns
SWS-320 Software Development Project 1
SWS-223 Technical Writing and Documentation

Semester 7

SWS-422 Emerging Technologies
LIBELECT Liberal Studies Elective**
PROELECT Professional Elective*
BUS-410 Project Management 2
SWS-410 Software Development Project 2
SWS-411 Software Quality Assurance

Semester 8

BUS-312 Business Consulting
SWS-421 Cryptography and Information Security
LIBELECT Liberal Studies Elective**
PROELECT Professional Elective*
SWS-420 Software Development Project 3

*Professional Electives

SWS-801 Service Oriented Architecture 1
SWS-802 Service Oriented Architecture 2
SWS-901 Wireless Systems Design 1
SWS-902 Wireless Systems Design 2

**Liberal Studies Electives

HIS-302 Canadian Studies
LIT-302 Propaganda Literature
PSY-301 Social Psychology
PSY-303 Consumer Psychology
PSY-304 Principles of Human Behaviour
MTH-350 Calculus with Applications
SOC-100 Caribbean Studies