

ENGINEERING

| | |
|--|----|
| What can I do with a degree in Civil and Environmental Engineering? | 2 |
| Skills..... | 2 |
| Potential Career Options..... | 2 |
| Employment Prospects in this Area of Study | 2 |
| Gain Experience Related to Your Studies | 2 |
| Graduate Studies | 3 |
| Web Links..... | 4 |
| What can I do with a degree in Mechanical, Automotive, and Materials Engineering? | 5 |
| Skills..... | 5 |
| Potential Career Options..... | 5 |
| Employment Prospects in this Area of Study | 5 |
| Gain Experience Related to Your Studies | 5 |
| Graduate Studies | 6 |
| Web Links..... | 7 |
| What can I do with a degree in Electrical and Computer Engineering? | 8 |
| Skills..... | 8 |
| Potential Career Options..... | 8 |
| Employment Prospects in this Area of Study | 8 |
| Gain Experience Related to Your Studies | 9 |
| Graduate Studies | 10 |
| Web Links..... | 10 |
| What can I do with a degree in Industrial and Manufacturing Systems Engineering? | 12 |
| Skills..... | 12 |
| Potential Career Options..... | 12 |
| Employment Prospects in this Area of Study | 12 |
| Gain Experience Related to Your Studies | 13 |
| Graduate Studies | 13 |
| Web Links..... | 14 |

What can I do with a degree in Civil and Environmental Engineering?

Skills

As an undergraduate student in Civil and Environmental Engineering, you have many employability skills that are currently in demand. It is important that you are able to communicate these skills to potential employers. Some of these skills include:

- Problem solving
- Project management skills
- Organization skills
- Numerical computation skills
- Analyzing and interpreting data
- Critical thinking
- Oral and written communication skills
- Computer literacy
- Systemizing skills
- Efficiency
- Working independently or in teams
- Logical thinking
- Develop and implement policies, standards and procedures
- Ability to write well structured reports
- [Ontario Skills Passport](#)

Potential Career Options

- Civil engineer
- Consulting engineer
- Contractor or Entrepreneur
- Design engineer
- Environmental engineer
- Municipal engineer
- Project engineer
- Research engineer
- Structural engineer
- Water-resources engineer
- Engineering consultant
- Engineering inspector

Employment Prospects in this Area of Study

Job Futures (www.jobfutures.ca <http://www.ontariojobfutures.ca/>) are websites that inform you of employment prospects for various areas of employment and in specific occupations. Here you can compare annual salaries and average unemployment rates of Canadian graduates.

Gain Experience Related to Your Studies

The following types of organizations give you the opportunity to gain either volunteer or employment experience in the labour market related to your studies:

- Construction department of companies outside the construction industry
- Engineering consulting firms
- Governments
- Residential, commercial and industrial construction companies
- Self-employment

You can also gain experience in the following work fields:

- Administration
- Analysis, design and construction (bridges, dams, pipelines, highways, etc.)
- Aqueduct network
- Building inspection
- Distribution services
- Environmental engineering
- Geotechnical
- Hydraulic resources
- Industrial installation
- Irrigation
- Sanitary services
- Teaching
- Transportation
- Urban and municipal planning
- Water resources

Graduate Studies

Exploring Graduate Programs

If you are thinking about continuing your education post graduation, log onto the following websites to locate and explore graduate programs you may be interested in:

- [Association of Universities and Colleges of Canada](#)
- [Schoolfinder](#) (Canada)
- [Gradview](#) (Canada and US)
- [School Guides](#)
- [Grad Schools](#)
- [Grad Source](#)

Applying to Grad School

Various graduate programs have various application requirements. Log onto the following websites for more information.

- [Ontario Universities Application Centre: Professional Applications](#) – Find applications here for The Ontario Rehabilitation Sciences Programs (ORPAS), The Ontario Faculties of Education (TEAS), The Ontario Law Schools (OLSAS), The Ontario Medical Schools (OMSAS)
- [Graduate Records Exam \(GRE\)](#) (Master's degrees in Arts/Social Sciences)
- [Masters of Business Administration \(MBA\)](#) – Also includes GMAT information

A detailed list of post [graduate admission links](#).

Web Links

Professional Associations/Sites of Interest

- [American Society of Civil Engineers](#)
- [Association of Consulting Engineers of Canada](#)
- [Canadian Academy of Engineering](#)
- [Canadian Coalition of Women in Science, Engineering and Technology](#)
- [Canadian Council of Professional Engineers](#)
- [Canadian Federation of Engineering Students](#)
- [Canadian Society for Civil Engineering](#)
- [Engineering Institute of Canada](#)
- [Professional Engineers Ontario](#)

Additional Career Related Information

- [University of Ottawa: What can I do with my studies?](#)
- [McGill University: What Can I Do?](#)
- [Guelph University: What Can I do?](#)
- [Brock University: What Can I Do?](#)

What can I do with a degree in Mechanical, Automotive, and Materials Engineering?

Skills

As an undergraduate student in Mechanical, Automotive, and Materials Engineering, you have many employability skills that are currently in demand. It is important that you are able to communicate these skills to potential employers. Some of these skills include:

- Problem solving
- Project management skills
- Organization skills
- Numerical computation skills
- Analyzing and interpreting data
- Critical thinking
- Oral and written communication skills
- Computer literacy
- Systemizing skills
- Efficiency
- Working independently or in teams
- Logical thinking
- [Ontario Skills Passport](#)

Potential Career Options

- Aeronautical / Aerospace engineer
- Automotive engineer
- Biomedical engineer
- Consulting engineer
- Energy engineer
- Industrial engineer
- Manufacturing engineer
- Mechanical engineer
- Product designer
- Research analyst
- Robotics / Automation / Controls engineer
- Teacher
- Waste management engineer

Employment Prospects in this Area of Study

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Gain Experience Related to Your Studies

The following types of organizations give you the opportunity to gain either volunteer or employment experience in the labour market related to your studies:

- Aircraft and spacecraft manufacturers
- Airports
- Consulting firms
- Energy service providers
- Governments
- Harbour operations
- Maintenance and mechanical engineering departments of manufacturing
- Transformation and transportation industries
- Research and educational establishments
- Schools
- Sports facilities

You can also gain experience in the following work fields:

- Administration
- Aerospace
- Biomedical engineering
- Energy Production, Transportation, Processing and Manufacturing
- Heating, Air-conditioning and Ventilation systems
- Mechanical installations maintenance
- Process and equipment development
- Product design
- Production supervision
- Project administration
- Research
- Teaching
- Technical sales

Graduate Studies

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- [Graduate Records Exam \(GRE\)](#) (Master's degrees in Arts/Social Sciences)
- [Masters of Business Administration \(MBA\)](#) – Also includes GMAT information

A detailed list of post graduate admission links.

Web Links

Professional Associations/Sites of Interest

[American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. \(ASHRAE\)](#)
[American Society of Mechanical Engineers](#)
[Association of Consulting Engineers of Canada](#)
[Canadian Academy of Engineering](#)
[Canadian Council of Professional Engineers \(CCPE\)](#)
[Canadian Federation of Engineering Students](#)
[Engineering Institute of Canada](#)
[Institution of Mechanical Engineers](#)
[Professional Engineers Ontario](#)
[Society of Automotive Engineers](#)
[Ontario Society of Professional Engineers](#)
[Canadian Society of Mechanical Engineers](#)

Additional Career Related Information

- [University of Ottawa: What can I do with my studies?](#)
- [McGill University: What Can I Do?](#)
- [Guelph University: What Can I do?](#)
- [Brock University: What Can I Do?](#)

What can I do with a degree in Electrical and Computer Engineering?

Skills

As an undergraduate student in Electrical and Computer Engineering, you have many employability skills that are currently in demand. It is important that you are able to communicate these skills to potential employers. Some of these skills include:

- Problem solving
- Project management skills
- Organization skills
- Numerical computation skills
- Analyzing and interpreting data
- Critical thinking
- Oral and written communication skills
- Computer literacy
- Systemizing skills
- Efficiency
- Working independently or in teams
- Logical thinking
- Ability to write well structured reports
- Ability to modify and install equipment
- Develop and implement policies, standards and procedures
- Ability to design and develop machinery, structures, equipment and systems
- [Ontario Skills Passport](#)

Potential Career Options

- Communications engineer
- Communications network engineer
- Consultant
- Electromagnetics engineer
- Electronics and chip designer
- Hardware engineer
- Network Engineer
- Products engineer
- Programmer
- Researcher
- Robotics / Control engineer
- Signal-processing engineer
- Software designer
- Software engineer
- Systems engineer

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Gain Experience Related to Your Studies

The following types of organizations give you the opportunity to gain either volunteer or employment experience in the labour market related to your studies:

Aerospace products companies

Airports

- Communication companies
- Companies which manufacture and market software products
- Computer manufacturers
- Consulting companies providing software-related information technology services
- Educational and research institutions
- Governments
- Harbour operations
- Industrial establishments
- Instrumentation and control products companies
- Maintenance and mechanical engineering departments of manufacturing
- Manufacturers of electrical and electronic equipment
- Manufacturing, processing and transportation industries
- Public and private sector utilities and heating oil distribution companies
- Schools and sports facilities
- Shopping centres
- Telecommunications equipment and networks, aerospace products
- Telephone, telegraph, satellite and other telecommunications companies
- Universities
- Warehouses

You can also gain experience in the following work fields:

- Administration
- Biomedical instrumentation
- Cell phone and digital television
- Communication
- Computer chip design
- Consumer electronic
- Control and instrumentation system
- Database administration
- Digital signal processing
- Electrical energy production and transmission
- Fibre optic and laser design
- Hardware and software development and design
- Image / video processing
- Information processing technology
- Integrated circuits
- Internet and Computer technology
- Microchip and ultra high frequency circuits design
- Mobile and Wireless communications
- Programming
- Research
- Residential, commercial or industrial electrical installations
- Robotics

- System analysis
- Teaching
- Telecommunication Networks

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- [Masters of Business Administration \(MBA\)](#) – Also includes GMAT information

A detailed list of post [graduate admission links](#).

Web Links

Professional Associations/Sites of Interest

- [Aerospace & Electronic Systems Society](#)
- [Association for Computing Machinery](#)
- [Association for Media and Technology in Education in Canada](#)
- [Association of Consulting Engineers of Canada](#)
- [Canadian Academy of Engineering](#)
- [Canadian Council of Professional Engineers](#)
- [Canadian Federation of Engineering Students](#)
- [Computer Society of the Institute of Electrical and Electronics Engineers](#)
- [Engineering Institute of Canada](#)
- [Engineers Without Borders](#)
- [Federation of Engineering Students](#)
- [Illuminating Engineering Society of North America](#)
- [Institute of Electrical and Electronics Engineers](#)
- [International Electrotechnical Commission](#)
- [National Center for Supercomputing Applications](#)

- [Professional Engineers Ontario](#)
- [TruSecure Corporation](#)
- [Electrical and Computer Engineer](#)

Additional Career Related Information

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- [Guelph University: What Can I do?](#)
- [Brock University: What Can I Do?](#)

What can I do with a degree in Industrial and Manufacturing Systems Engineering?

Skills

As an undergraduate student in Industrial and Manufacturing Systems Engineering, you have many employability skills that are currently in demand. It is important that you are able to communicate these skills to potential employers. Some of these skills include:

- Problem solving
- Project management skills
- Organization skills
- Numerical computation skills
- Analyzing and interpreting data
- Critical thinking
- Oral and written communication skills
- Computer literacy
- Systemizing skills
- Efficiency
- Working independently or in teams
- Logical thinking
- [Ontario Skills Passport](#)

Potential Career Options

- Consultant
- Engineer, Computer Integrated Manufacturing (CIM)
- Ergonomist
- Fire Prevention Engineer
- Industrial Engineer
- Management Engineer
- Manufacturing Engineer
- Operations Analyst
- Plant Engineer
- Process Engineer
- Production Engineer
- Quality Control Engineer
- Quality Engineer
- Safety Engineer
- Schedule/Planning Engineer
- Work Measurement Engineer
- Modeling and Simulation Specialist
- Director of Warehousing and Distribution

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Gain Experience Related to Your Studies

The following types of organizations give you the opportunity to gain either volunteer or employment experience in the labour market related to your studies:

- Industry
- Engineering Consulting Firms
- Food Processing
- Governments
- Hospitals And Other Health-Care Operations
- Local Regional And National Governments
- Media
- Self-Employment
- Transportation
- Utilities
- Trucking
- Airline
- Postal
- Maritime
- Rail

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Web Links

Professional Associations/Sites of Interest

- [Institute of Industrial Engineers](#)
- [Human Factors & Ergonomics Society](#)
- [National Society of Professional Engineers](#)
- [Ontario Society of Professional Engineers](#)
- [Society of Women Engineers](#)
- [Association of Consulting Engineers of Canada](#)
- [Canadian Academy of Engineering](#)
- [Canadian Coalition of Women in Science, Engineering and Technology](#)
- [Canadian Council of Professional Engineers](#)
- [Canadian Federation of Engineering Students](#)
- [Engineering Institute of Canada](#)
- [Professional Engineers Ontario](#)

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