

Sarnia Lambton

STEM

OCCUPATIONAL
PROFILES

high-tech CAREERS for the future



SARNIA LAMBTON WORKFORCE DEVELOPMENT BOARD

CATALYSTS FOR LABOUR MARKET CHANGE

Vision: Growing Sarnia Lambton's workforce for tomorrow's economy.

Mission: To identify needs and facilitate solutions to attract, train and retain a viable workforce through community partnerships.

The Sarnia Lambton Workforce Development Board (SLWDB) is one of 25 local planning boards mandated through the Ontario Ministry of Training, Colleges and Universities to conduct and disseminate local labour market research and engage community stakeholders in a planning process that supports local solutions to local issues.

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EMPLOYMENT ONTARIO

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What is the STEM?

The acronym STEM stands for:

- Science
- Technology
- Engineering
- Mathematics

The STEM occupations are those jobs related to the academic and professional disciplines in the science, technology, engineering, and mathematics areas. The STEM fields are collectively considered core technological underpinnings of an advanced high-tech economy.

What is in the profile?

There are 55 STEM occupation profiles for Sarnia Lambton listed in the report. Each profile includes:

- Description of occupation
- Total # of workers in Sarnia Lambton
- # of people employed in this occupation in Sarnia Lambton
- % of people employed in Sarnia Lambton
- % of occupations in Sarnia Lambton's employed workforce
- Age profile of people who work in Sarnia Lambton in this occupation
- Median income from persons in this occupation in Sarnia Lambton
- # of people in Sarnia Lambton's employed workforce
- Top 3 industrial sectors based on full time employment in Sarnia Lambton
- Job loss/gain information
- This occupation may also be called
- Employment prospects
- Employment requirements
- Working conditions
- Links: Professional associations
 - Local education & training programs
 - Essential skills
 - Work habits
 - Local employers

What is a NOC?

The National Occupational Classification (NOC) is the nationally accepted reference on occupations in Canada. It organizes over 30,000 job titles into 520 occupational group descriptions. It is used daily by thousands of people to compile, analyze and communicate information about occupations, and to understand the jobs found throughout Canada's labour market.

The NOC provides a standardized framework for organizing the world of work in a coherent system. It is used to collect and organize occupational statistics and to provide labour market information. The structure and content of the NOC is also implemented in a number of major services and products throughout the private and public sectors.

The NOC is updated in partnership with Statistics Canada according to 5-year Census cycles. It is based on extensive occupational research and consultations conducted across the country, reflecting the evolution of the Canadian labour market.

The major groups include:

- 0 Management Occupations
- 1 Business, Finance and Administration Occupations
- 2 Natural and Applied Sciences and Related Occupations
- 3 Health Occupations
- 4 Occupations in Social Science, Education, Government Service and Religion
- 5 Occupations in Art, Culture, Recreation and Sport
- 6 Sales and Service Occupations
- 7 Trades, Transport and Equipment Operators and Related Occupations
- 8 Occupations Unique to Primary Industry
- 9 Occupations Unique to Processing, Manufacturing and Utilities

List of resources

- Human Resources and Skills Development Canada
www.hrsdc.gc.ca
- Workforce Planning Ontario
www.workforceplanningontario.ca
- Working in Canada, Government of Canada
www.workingincanada.gc.ca
- Ontario Job Futures, Ministry of Training, Colleges and Universities
www.tcu.gov.on.ca
- Ontario Skills Passport
www.skills.edu.gov.on.ca
- O*NET Online
www.onetonline.org

Accounting and Related Clerks**NOC 1431-C****Occupation Description**

Accounting and related clerks calculate, prepare and process bills, invoices, accounts payable and receivable, budgets and other financial records according to established procedures. They are employed throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 455

Number of People Employed in this Occupation in Sarnia Lambton 380

% of People Employed in Sarnia Lambton in this Occupation

Accounting, Tax Preparation, Bookkeeping and Payroll Services	NAICS 5412	10.5%
Pesticide, Fertilizer and Other Agricultural Chemical Manufacturing	NAICS 3252	5.2%
Employment Services	NAICS 5613	5.2%

% of Occupations in Sarnia Lambton's Employed Workforce 0.7%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	45	12.9%
25 to 44 years	110	31.4%
45 to 64 years	195	55.7%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$36,681

Number of People in Sarnia Lambton's Employed Workforce 435

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	55	14.5%
31-33	Manufacturing	45	11.8%
81	Other Services (except Public Administration)	30	7.9%

Job Loss/Gain Information 2.6%

This Occupation May Also Be Called:

- accounting clerk
- accounts payable clerk
- accounts receivable clerk
- audit clerk
- billing clerk
- budget clerk
- costing clerk
- deposit clerk
- finance clerk
- freight-rate clerk
- income tax return preparer
- invoice clerk
- ledger clerk
- tax clerk

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Improvements in computer-based technology to process financial and other types of information will continue to impact the demand for these clerks. However, due to the large size of this occupational group, a substantial number of job openings will be created each year from the need to replace workers who retire or leave. Although technological advances will alter the way these workers perform their daily tasks, such as tax preparation software, it will not eliminate demand for these workers, especially in smaller establishments.

Accounting clerks now work exclusively in a computerized environment. The use of computerized accounting, inventory and billing systems are part of the job. Good computer skills will be essential.

Employment Requirements

- Completion of secondary school is usually required.
- Completion of college or other courses certified by the Certified General Accountants Association of Canada, Canadian Securities Institute or Canadian Bookkeepers Association may be required.
- Some accounting clerks must be bondable.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1431&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1431&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills:**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=1431&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1431&province=35&keyword=&action=final&display=job

Aerospace Engineers

NOC 2146-A

Occupation Description

Aerospace engineers research, design and develop aerospace vehicles, aerospace systems and their components, and perform duties related to their testing, evaluation, installation, operation and maintenance. They are employed by aircraft and spacecraft manufacturers, air transport carriers, and in government and educational and research institutions.

Total Number of Workers in Sarnia Lambton 0

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Manufacturing and Reproducing Magnetic and Optical Media	NAICS 3364	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	10	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time

Number of People in Sarnia Lambton's Employed Workforce 0

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	10	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- aerodynamics engineer
- aeronautical engineer
- aerospace engineer
- aircraft design engineer
- stress engineer – aerospace
- structural engineer - aerospace
- systems engineer - aerospace
- test engineer - aerospace

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. In an economic downturn, employment in this occupation declines. Demand for aerospace engineers is highly dependent on world-wide demand for aircrafts and passenger travel. However, new technologies introduced on commercial aircrafts over the next decade should fuel demand for aerospace engineers.

Job prospects are considerably better for experienced engineers with highly developed computer skills.

Employment Requirements

- A bachelor's degree in aerospace engineering or in a related engineering discipline, such as mechanical engineering or engineering physics, is required
- A master's degree or doctorate in a related engineering discipline may be required
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.)
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination
- Supervisory and senior positions in this unit group require experience

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2146&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2146&province=35&keyword=&action=final&display=training

❖ Essential Skills:

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2146&sort=N>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2146&province=35&keyword=&action=final&display=job

Agricultural and Related Service Contractors and Managers**NOC 8252-B****Occupation Description**

Contractors and managers in this unit group operate establishments that provide agricultural services such as livestock and poultry breeding, soil preparation, crop planting, crop spraying, cultivating or harvesting.

Total Number of Workers in Sarnia Lambton 20**Number of People Employed in this Occupation in Sarnia-Lambton**

No information available at this time.

% of People Employed in Sarnia Lambton in this Occupation

No information available at this time.

% of Occupations in Sarnia Lambton's Employed Workforce 0.03%**Age Profile of People Who Work in Sarnia Lambton in this Occupation**

No information available at this time.

Median Income from Persons in this Occupation in Sarnia-Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 20**Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton**

No information available at this time.

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- artificial inseminator
- crop dusting contractor
- livestock breeding service manager
- manager, artificial insemination service
- manager, crop harvesting service.

Employment Prospects

No information available at this time.

Employment Requirements

- Several years of experience related to the agricultural service offered are usually required.
- Contractors and managers providing certain services, such as artificial insemination and pesticide application, may require training certificates and provincial licensing.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8252&province=35&titleKeyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8252&province=35&titleKeyword=&action=final&display=training

❖ Essential Skills:

No information available at this time.

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8252&province=35&titleKeyword=&action=final&display=job

Architects**NOC 2151-A****Occupation Description**

Architects conceptualize, plan and develop designs for the construction and renovation of commercial, institutional and residential buildings. They are employed by architectural firms, private corporations and governments, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 20

Number of People Employed in this Occupation in Sarnia Lambton 20

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	75%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.03%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$31,791

Number of People in Sarnia Lambton's Employed Workforce 20

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	20	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- architect
- architectural standards specialist
- chief architect
- consulting architect
- industrial and commercial buildings architect
- residential architect

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Employment in architecture is closely tied to construction activity in the residential, commercial and institutional sectors. In an economic downturn, employment falls for this occupation as residential construction and renovation decline. However, as the population continues to age and baby boomers retire, there will be demand for architects to help with the construction of institutions such as health care facilities and retirement and nursing homes.

Architects can specialize in areas such as contract administration, housing design, renovations or institutional buildings. Graduating architecture students are also applying their skills to a variety of architecture-related professions such as facilities management, graphic design and urban planning. Computer-aided design (CAD) is prevalent in this occupation and is being used to produce a wider choice of designs for customers, as well as to improve the productivity of architects. Prospects will be best for those familiar with CAD technology and particularly those with "green" design knowledge. Due to increasing energy costs, more demand has been placed on sustainable designs which focus on energy efficiency. Individuals with experience and knowledge on how to build green buildings which utilize renewable resources, promote waste reduction and are environmentally friendly will have the best employment prospects.

Employment Requirements

- A bachelor's degree from an accredited school of architecture
or
Completion of the syllabus of studies from the Royal Architectural Institute of Canada (RAIC) is required.
- A master's degree in architecture may be required.
- Completion of a three-year internship under the supervision of a registered architect is required.
- Completion of the architect registration examination is required.
- Registration with the provincial association of architects in the province of work is required.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2151&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2151&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
No information available at this time.
- ❖ **Work Habits:**
No information available at this time.
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2151&province=35&keyword=&action=final&display=job

Architectural Technologists and Technicians

NOC 2251-B

Occupation Description

Architectural technologists and technicians may work independently or provide technical assistance to professional architects and civil design engineers in conducting research, preparing drawings, architectural models, specifications and contracts and in supervising construction projects. Architectural technologists and technicians are employed by architectural and construction firms, and governments.

Total Number of Workers in Sarnia Lambton 15

Number of People Employed in this Occupation in Sarnia Lambton 15

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	66.7%
Employment Services	NAICS 5613	66.7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	15	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 15

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	15	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- architectural design technician
- architectural design technologist
- architectural technician
- architectural technologist

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. Employment levels for architectural technologists and technicians are heavily dependent on activity in the construction sector, which experiences less activity during an economic downturn. The use of computer-aided design technology is blurring the boundary between the work of engineers, architects and technologists. Many young engineers and architects are now doing conception design and production tasks once done by technicians and technologists. This trend may limit future employment growth.

Current use of computerized design is transforming this occupation. Workers will need to develop the appropriate skills and will need intermittent retraining and professional development to keep up with new technologies.

Employment Requirements

- Completion of a two- to three-year college program in architectural technology or a related subject is usually required.
- Certification in architectural technology or in a related field through provincial associations of architectural or engineering/applied science technologists and technicians may be required by employers.
- A period of supervised work experience, usually two years, is required before certification.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2251&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2251&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2251&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2251&province=35&keyword=&action=final&display=job

Biological Technologists and Technicians**NOC 2221-B****Occupation Description**

Biological technologists and technicians provide technical support and services to scientists, engineers and other professionals working in fields such as agriculture, resource management, environmental protection, plant and animal biology, microbiology, cell and molecular biology and health sciences, or may work independently in these fields. They are employed in both laboratory and field settings by governments, manufacturers of food products, chemicals and pharmaceuticals, biotechnology companies, health, research and educational institutions, environmental consulting companies and resource and utilities companies.

Total Number of Workers in Sarnia Lambton

No information available at this time.

Number of People Employed in this Occupation in Sarnia Lambton

No information available at this time.

% of People Employed in Sarnia Lambton in this Occupation

No information available at this time.

% of Occupations in Sarnia Lambton's Employed Workforce

No information available at this time.

Age Profile of People Who Work in Sarnia Lambton in this Occupation

No information available at this time.

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce

No information available at this time.

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

No information available at this time.

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- agricultural technician
- agricultural technologist
- agrology technician
- aquaculture technician
- bacteriological technician
- biological laboratory technologist
- botanical technician
- fish hatchery technician
- fisheries technician
- food bacteriological technician
- microbiology quality control technologist
- microbiology technologist (except medical)
- plant breeding technician
- seed technologist
- wildlife biology technician.

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Ontario has a vibrant biotechnology sector with strengths in the bio-medical, pharmaceutical, medical devices, agricultural-biotechnology and biomaterials field. The number of new graduates should meet industry needs. Businesses in Canada have turned to foreign workers in times of economic boom, to fill labour shortages. During an economic downturn however, large job losses can occur since biotech companies are highly dependent on well-functioning capital markets and are vulnerable to market slowdowns.

Computer-based competencies such as bioinformatics and molecular modelling are becoming more important as companies and researchers deal with the integration of traditional and information sciences. Co-op programs are the preferred approach for many companies. In Ontario, the focus is on biosciences/life sciences, pharmaceutical medical devices, human health and the environment. People who work in these occupations require ongoing retraining and professional development to keep abreast of new information and changing technology. Increasingly, individuals in this field will require certification at a Masters or PhD level. Candidates with strong business and project management skills will have the best job prospects in a tight labour market.

Employment Requirements

- Completion of a two- to three-year college program in a field related to agriculture, biology, microbiology, wildlife or resource management is usually required for employment as a biological technologist.
- Completion of a one- to two-year college program in a related field is required for employment as a biological technician.
- Certification with provincial associations is available, but voluntary.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2221&province=35&titleKeyword=Biological&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2221&province=35&titleKeyword=Biological&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2221&sort=N>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2221&province=35&titleKeyword=Biological&action=final&display=job

Biologists and Related Scientists**NOC 2121-A****Occupation Description**

Biologists and related scientists conduct basic and applied research to extend knowledge of living organisms, to manage natural resources, and to develop new practices and products related to medicine and agriculture. They are employed in both laboratory and field settings by governments, environmental consulting companies, resource and utilities companies, chemical, pharmaceutical and biotechnical companies and health and educational institutions.

Total Number of Workers in Sarnia Lambton 25

Number of People Employed in this Occupation in Sarnia Lambton 20

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	50%
Agricultural Supplies Wholesaler-Distributors	NAICS 4183	50%

% of Occupations in Sarnia Lambton's Employed Workforce 0.03%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	50%
45 to 64 years	10	50%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 25

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	15	75%
41	Wholesale Trade	10	50%
-	-	-	-

Job Loss/Gain Information

100%

This Occupation May Also Be Called:

- anatomist
- bacteriologist
- bioinformatician
- biologist
- botanist
- cell biologist
- ecologist
- embryologist
- geneticist
- histologist
- immunologist
- marine biologist
- microbiologist
- molecular biologist
- parasitologist
- pharmacologist
- physiologist
- protozoologist
- toxicologist
- virologist
- zoologist

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. The public sector is the largest employer of biologists. Typically, demand for biologists is related to environmental research and monitoring. The biotechnology and health sectors, however, will become a growing source of new employment opportunities. The employment of these professionals is closely related to investment in research and development. However, in an economic downturn, less money is allocated for research and development which could limit the extension or renewal of existing projects.

There is a shift toward interdisciplinary programs, combining systems engineering with microbiology and other scientific specialties. Computer-based competencies such as bioinformatics and molecular modeling are also becoming more important as companies and researchers deal with the integration of traditional and information sciences. Graduates with a master's or doctoral degree, as well as individuals with strong project management skills, will have the best prospects.

Employment Requirements

- A bachelor's degree in biology or in a related discipline is required for biologists.
- A master's or doctoral degree in biology or a related discipline is required for employment as a research scientist in biology.
- Post-doctoral research experience is usually required before employment in academic departments or research institutions.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2121&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2121&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2121&province=35&keyword=&action=final&display=job

Chemical Engineers

NOC 2134-A

Occupation Description

Chemical engineers research, design, and develop chemical processes and equipment, oversee the operation and maintenance of industrial chemical, plastics, pharmaceutical, resource, pulp, and food processing plants and perform duties related to chemical quality control, environmental protection and biochemical or biotechnical engineering. Chemical engineers are employed in a wide range of manufacturing and processing industries, consulting firms, government, research and educational institutions.

Total Number of Workers in Sarnia Lambton 310

Number of People Employed in this Occupation in Sarnia Lambton 310

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Products Manufacturing	NAICS 3241	32.3%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	22.6%
Basic Chemical Manufacturing	NAICS 3251	16.1%
Architectural, Engineering and Related Services	NAICS 5413	9.7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.5%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	120	41.4%
45 to 64 years	160	55.2%
65 + years	10	3.4%

Median Income from Persons in this Occupation in Sarnia Lambton \$111,514

Number of People in Sarnia Lambton's Employed Workforce 300

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	225	72.6%
54	Professional, scientific and technical services	30	9.7%
41	Wholesale Trade	30	9.7%

Job Loss/Gain Information

-37.4%

This Occupation May Also Be Called:

- adhesives engineer
- biochemical engineer
- biotechnical engineer
- chemical engineer
- environmental, chemical process engineer
- industrial hygiene engineer
- industrial waste treatment engineer
- liquid fuels engineer
- petrochemical engineer
- polymer engineer
- process control engineer
- chemical, project engineer
- chemical, pulp and paper engineer
- refinery engineer
- waste treatment engineer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. In an economic downturn, chemical manufacturing is expected to decline. However, companies will continue to develop new chemicals especially in areas related to the production of pharmaceuticals and plastics materials which may provide most of the new job opportunities. Chemical engineers will also find good employment opportunities in the service producing industries such as professional, technical and scientific services particularly for research in energy and in the developing fields of biotechnology and nanotechnology.

Employers are seeking increasingly cross-degree scientists. An example of this multidisciplinary path would be a person with chemistry, plus a divergent post-doctoral degree such as cell biology and computer skills.

Employment Requirements

- A bachelor's degree in chemical engineering or in a related engineering discipline is required.
- A master's degree or doctorate in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2134&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2134&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2134&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2134&province=35&keyword=&action=final&display=job

Chemical Technologists and Technicians

NOC 2211-B

Occupation Description

Chemical technologists and technicians provide technical support and services or may work independently in chemical engineering, chemical and biochemical research and analysis, industrial chemistry, chemical quality control and environmental protection. They are employed by research and development and quality control laboratories, consulting engineering companies, in chemical, petrochemical, pharmaceutical and a variety of other manufacturing and processing industries, and by utilities, health, education and government establishments.

Total Number of Workers in Sarnia Lambton 495

Number of People Employed in this Occupation in Sarnia Lambton 420

% of People Employed in Sarnia Lambton in this Occupation

Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	22.6%
Scientific Research and Development Services	NAICS 5417	16.7%
Petroleum and Coal Products Manufacturing	NAICS 3241	14.3%
Basic Chemical Manufacturing	NAICS 3251	7.1%
Management, Scientific and Technical Consulting Services	NAICS 5416	6%
Waste Treatment and Disposal	NAICS 5622	6%

% of Occupations in Sarnia Lambton's Employed Workforce 0.7%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	25	5.9%
25 to 44 years	130	30.6%
45 to 64 years	270	63.5%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$88,325

Number of People in Sarnia Lambton's Employed Workforce 455

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	230	54.8%
54	Professional, scientific and technical services	105	25%
56	Administrative and Support, Waste Management and Remediation Services	40	9.5%

Job Loss/Gain Information

-20%

This Occupation May Also Be Called:

- analytical technician
- chemical, biochemistry technologist
- chemical analyst
- chemical engineering technician
- chemical engineering technologist
- chemical laboratory analyst
- chemical research technician
- chemical technician
- chemical technologist
- food technologist
- formulation technician
- geochemical technician
- industrial hygiene technologist
- mass spectrometer technician
- master dyer – textiles
- paint technician
- pilot plant technician
- quality control technician – chemical processing
- quality control technician – food processing

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Demand for chemical technologists and technicians increases as chemical companies research and develop new chemicals and make more efficient use of existing chemicals. However, in an economic downturn, less money is allocated for research and development, which could moderate employment growth in this occupation.

As technology changes, people in these occupations will have to undergo periods of retraining and professional development. Increasingly, they will also have to obtain certification in their field.

Employment Requirements

- Chemical technologists usually require completion of a two- or three-year college program in chemical, biochemical or chemical engineering technology or a closely related discipline.
- Chemical technicians usually require completion of a one- or two-year college program in chemical, biochemical or chemical engineering technology.
- National certification for chemical technologists and technicians is available through the Canadian Society for Chemical Technology.
- Certification in chemical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.

- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.
- A period of supervised work experience, usually two years, is required before certification.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2211&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2211&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2211&province=35&keyword=&action=final&display=job

Chemists

NOC 2112-A

Occupation Description

Chemists conduct research and analysis in support of industrial operations, product and process development, quality control, environmental control, medical diagnosis and treatment, biotechnology and other applications. They also conduct theoretical, experimental and applied research into basic chemical and biochemical processes to create or synthesize new products and processes. Chemists are employed in research, development and quality control laboratories; chemical, petrochemical and pharmaceutical industries; mineral, metal and pulp and paper industries; and a wide variety of manufacturing, utility, health, educational and government establishments.

Total Number of Workers in Sarnia Lambton 115

Number of People Employed in this Occupation in Sarnia Lambton 100

% of People Employed in Sarnia Lambton in this Occupation

Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	35%
Petroleum and Coal Products Manufacturing	NAICS 3241	25%
Basic Chemical Manufacturing	NAICS 3251	10%
Chemical (except Agricultural) and Allied Product Wholesaler-Distributors	NAICS 4184	10%
Scientific Research and Development Services	NAICS 5417	10%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	60	55%
45 to 64 years	50	45%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$88,698

Number of People in Sarnia Lambton's Employed Workforce 115

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	70	60.9%
54	Professional, scientific and technical services	45	13%
48-49	Transportation and warehousing	10	8.7%

Job Loss/Gain Information

-20%

This Occupation May Also Be Called:

- agricultural chemist
- analytical chemist
- bioanalytical chemist
- biochemist
- chemist
- clinical chemist
- coatings chemist
- electrochemist
- environmental chemist
- food chemist
- inorganic chemist
- medical biochemist – medicine
- medicinal chemist
- nuclear magnetic resonance (NMR) spectroscopist
- oceanographic chemist
- organic chemist
- organic mass spectrometrists
- organometallic chemist
- pharmacological chemist
- physical chemist
- polymer chemist
- quality control chemist
- research chemist
- soil chemist
- textile chemist
- theoretical chemist

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013 because of the anticipated decline in chemical manufacturing. The employment of these professionals is closely related to investment in research and development. However, in an economic downturn, less money is allocated for research and development which places restrictions on the extension or renewal of existing projects.

There is a tendency toward collaboration with specialists in other fields, such as engineering. In addition to industry specific knowledge, employers look for computer, teamwork, communication, planning and organizing skills. Chemists will need to keep up with the rapid advancement in technical knowledge, particularly in the biochemical field. Pharmaceutical and biotechnology sectors will provide good employment opportunities. Graduates with a master's degree and particularly those with a Ph.D. as well as those with strong project management skills will have the best prospects.

Employment Requirements

- A bachelor's degree in chemistry, biochemistry or a related discipline is required.
- A master's or doctoral degree is usually required for employment as a research chemist.
- Licensing by a provincial association of chemists is compulsory in Quebec, and available but voluntary in Ontario and Alberta.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2112&province=35&keyword=keyword&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2112&province=35&keyword=keyword&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2112&province=35&keyword=keyword&action=final&display=job

Civil Engineering Technologists and Technicians

NOC 2231-B

Occupation Description

Civil engineering technologists and technicians provide technical support and services to scientists, engineers and other professionals, or may work independently in fields such as structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering, geotechnical engineering and environmental protection. They are employed by consulting engineering and construction companies, public works, transportation and other government departments and in many other industries.

Total Number of Workers in Sarnia Lambton 65

Number of People Employed in this Occupation in Sarnia Lambton 50

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	80%
Local, Municipal and Regional Public Administration	NAICS 9130	20%

% of Occupations in Sarnia Lambton's Employed Workforce 0.09%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	18.2%
25 to 44 years	35	63.6%
45 to 64 years	10	18.2%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$55,097

Number of People in Sarnia Lambton's Employed Workforce 60

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	45	90%
91	Public Administration	10	20%
-	-	-	-

Job Loss/Gain Information

40%

This Occupation May Also Be Called:

- bridge design technician
- building materials technician
- civil engineering technician
- civil engineering technologist
- construction technologist
- foundation technologist
- highway technician
- municipal engineering assistant
- soil technologist – civil engineering
- specifications writer
- construction, structural design technologist
- structural investigator

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Employment for these workers often moves in tandem with the construction sector which is vulnerable to labour market conditions. Occupational overlap between civil engineers and civil engineering technologists and technicians in process control and project management will increase the demand for technologists and technicians in the long run.

Due to rapidly changing technology in this field, people in these occupations should plan on periods of retraining and professional development. New entrants with co-op experience, highly developed computer expertise and strong managerial skills are likely to enjoy the best employment prospects. Employers place significant emphasis on solid managerial abilities as they regard this skill to be the predominant function of technologists.

Employment Requirements

- Completion of a two- or three-year college program in civil engineering technology or a closely related discipline is usually required for civil engineering technologists.
- Completion of a one- or two-year college program in civil engineering technology is usually required for civil engineering technicians.
- Certification in civil engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2231&province=35&keyword=&action=final&display=union

- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2231&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2231&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2231&province=35&keyword=&action=final&display=job

Civil Engineers**NOC 2131-A****Occupation Description**

Civil engineers plan, design, develop and manage projects for the construction or repair of buildings, earth structures, powerhouses, roads, airports, railways, rapid transit facilities, bridges, tunnels, canals, dams, ports and coastal installations and systems related to highway and transportation services, water distribution and sanitation. Civil engineers may also specialize in foundation analysis, building and structural inspection, surveying, geomatics and municipal planning. Civil engineers are employed by engineering consulting companies, in all levels of government, by construction firms and in many other industries, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 190

Number of People Employed in this Occupation in Sarnia Lambton 145

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	51.7%
Local, Municipal and Regional Public Administration	NAICS 9130	17.2%
Non-residential Building Construction	NAICS 2362	6.9%
Utility System Construction	NAICS 2371	6.9%
Building Equipment Contractors	NAICS 2382	6.9%
Rail Transportation	NAICS 4821	6.9%

% of Occupations in Sarnia Lambton's Employed Workforce 0.3%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	7.4%
25 to 44 years	65	48.1%
45 to 64 years	60	44.4%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$78,790

Number of People in Sarnia Lambton's Employed Workforce 190

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	70	48.3%
91	Public Administration	35	24.1%
23	Construction	15	10.3%

Job Loss/Gain Information

20.7%

This Occupation May Also Be Called:

- bridge engineer
- civil engineer
- construction engineer
- environmental engineer
- geodetic engineer
- geomatics engineer
- highway engineer
- hydraulics engineer
- municipal engineer
- project engineer
- construction
- public works engineer
- sanitation engineer
- structural engineer
- surveying engineer
- traffic engineer
- transportation engineer
- water management engineer

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. As the population and economy grow, more civil engineers will be needed to design, construct and maintain highways, bridges, water supply, and large buildings and building complexes. However, employment for this occupation is cyclical and is closely tied to construction activity and investment in infrastructure. In an economic downturn, employment in this sector can fall below the forecasted rate.

Globalization of civil engineering services may result in employment opportunities outside of Canada especially since the infrastructure across much of North America needs upgrading. Individuals willing to travel overseas and those able to work well in teams will have the best job prospects.

Employment Requirements

- A bachelor's degree in civil engineering or in a related engineering discipline is required.
- A master's degree or doctorate in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2131&province=35&keyword=keyword&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2131&province=35&keyword=keyword&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2131&province=35&keyword=keyword&action=final&display=job

Computer Engineers (except software engineers)**NOC 2147-A****Occupation Description**

Computer engineers (except software engineers and designers) research, plan, design, develop, modify, evaluate and integrate computer and telecommunications hardware and related equipment, and information and communication system networks including mainframe systems, local and wide area networks, fibre-optic networks, wireless communication networks, Intranets, the Internet and other data communications systems. They are employed by computer and telecommunication hardware manufacturers, by engineering, manufacturing and telecommunications firms, in information technology consulting firms, by governmental, educational and research institutions and in information technology units throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 45

Number of People Employed in this Occupation in Sarnia Lambton 35

% of People Employed in Sarnia Lambton in this Occupation

Wireless Telecommunications Carriers (except Satellite)	NAICS 5172	57.1%
Architectural, Engineering and Related Services	NAICS 5413	28.6%

% of Occupations in Sarnia Lambton's Employed Workforce 0.07%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	25	71.4%
45 to 64 years	10	28.6%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$43,722

Number of People in Sarnia Lambton's Employed Workforce 45

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
51	Information and Cultural Industries	20	57.1%
91	Public Administration	10	28.6%
-	-	-	-

Job Loss/Gain Information

-12.5%

This Occupation May Also Be Called:

- application specific integrated circuit (ASIC) design engineer
- computer engineer
- computer hardware engineer
- engineer, computer hardware
- engineer, telecommunications hardware
- fibre-optic network designer
- hardware circuit board designer
- hardware design engineer
- hardware development engineer
- hardware engineer
- network systems engineer
- network test engineer
- systems designer – hardware
- technical architect – hardware
- wireless communications network engineer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Computer engineers often leave their jobs to pursue opportunities with employers who offer higher wages. This creates more job openings and makes it even easier for qualified graduates to penetrate the job market.

The demand for information technology (IT) workers is affected by the flow of investment in new technologies requiring IT workers and the stock of current IT applications requiring support. Although the use of information technology continues to expand rapidly, the manufacture of computer hardware is expected to be adversely affected by foreign competition. Growth in employment of hardware engineers is expected in the computer systems design and related services industry. Skills in high demand include wireless telecommunication, ASIC (Application Specific Integrated Circuit) design, high speed, analog or digital electronics or optics design and IP and packet switching/routing.

This occupation has a relatively young demographic with 80% under the age of 45. The labour force for this occupation contracted over the last few years, while average incomes increased. Experienced computer engineers who keep up-to-date with new and changing technologies will face better prospects in securing employment in this field. Advertised vacancies indicate a demand for system engineers with specialized skills and experience.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms

- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- Computer engineers require a bachelor's degree in computer engineering, electrical or electronics engineering, engineering physics or computer science.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2147&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2147&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2147&province=35&keyword=&action=final&display=job

Computer Network Technicians

NOC 2281-B

Occupation Description

Computer network technicians establish, operate, maintain and co-ordinate the use of local and wide area networks (LANs and WANs), mainframe networks, hardware, software and related computer equipment. They set up and maintain Internet and Intranet Web sites and Web-server hardware and software, and monitor and optimize network connectivity and performance. They are employed in information technology units throughout the private and public sectors. Supervisors of computer network technicians are included in this group.

Total Number of Workers in Sarnia Lambton 85

Number of People Employed in this Occupation in Sarnia Lambton 65

% of People Employed in Sarnia Lambton in this Occupation

Computer Systems Design and Related Services	NAICS 5415	23.1%
Non-residential Building Construction	NAICS 2362	15.4%
Basic Chemical Manufacturing	NAICS 3251	15.4%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	15.4%
Other Pipeline Transportation	NAICS 4869	15.4%
Wired Telecommunications Carriers	NAICS 5171	15.4%
Architectural, Engineering and Related Services	NAICS 5413	15.4%

% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	18.2%
25 to 44 years	35	63.6%
45 to 64 years	10	18.2%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$48,898

Number of People in Sarnia Lambton's Employed Workforce 75

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	20	30.8%
54	Professional, scientific and technical services	20	30.8%
23	Construction	10	15.4%

Job Loss/Gain Information

-35%

This Occupation May Also Be Called:

- Internet Web site technician
- LAN (local area network) administrator
- LAN (local area network) technician
- Web technician
- computer network technician
- computer network technician supervisor
- data centre operator
- network administrator
- network support technician
- supervisor
- computer network technician
- system administrator

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Most medium and large workplaces have computer network and websites leading to a large number of potential employers. However, information technology is maturing and becoming more standardized allowing businesses to manage their networks and websites more efficiently. Although the demand for information technology will create new opportunities, the supply of new graduates should meet industry needs. Workers in this field are expected to perform a variety of functions not typically covered by a single work description.

Experienced computer and network operators and web technicians, who keep up-to-date with new and changing technologies, will face the best prospects in securing employment in this field. Certification may be required by some employers. Co-op courses and internships can provide the industry and business knowledge and experience that employers want.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- Completion of a college or other program in computer science, network administration, Web technology or a related field is usually required.
- Certification or training provided by software vendors may be required by some employers.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2281&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2281&province=35&keyword=&action=final&display=training

❖ Essential Skills

No information available at this time.

❖ Work Habits:

No information available at this time.

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2281&province=35&keyword=&action=final&display=job

Computer Programmers and Interactive Media Developers

NOC 2174-A

Occupation Description

Computer programmers write, modify, integrate and test computer code for microcomputer and mainframe software applications, data processing applications, operating systems-level software and communications software. Interactive media developers write, modify, integrate and test computer code for Internet applications, computer-based training software, computer games, film, video and other interactive media. They are employed in computer software development firms, information technology consulting firms, and in information technology units throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 105

Number of People Employed in this Occupation in Sarnia Lambton 85

% of People Employed in Sarnia Lambton in this Occupation

Computer Systems Design and Related Services	NAICS 5415	29.4%
Petroleum and Coal Products Manufacturing	NAICS 3241	11.8%
Software Publishers	NAICS 5112	11.8%
Motion Picture and Video Industries	NAICS 5121	11.8%
Management, Scientific and Technical Consulting Services	NAICS 5416	11.8%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	13.3%
25 to 44 years	55	73.3%
45 to 64 years	10	13.3%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$76,826

Number of People in Sarnia Lambton's Employed Workforce 110

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	35	41.2%
51	Information and Cultural Industries	25	29.4%
31-33	Manufacturing	20	23.5%

Job Loss/Gain Information

23.5%

This Occupation May Also Be Called:

- web programmer
- application programmer
- business application programmer
- computer game developer
- computer programmer
- e-business (electronic business) software developer
- interactive media developer
- multimedia developer
- operating systems programmer
- programmer analyst
- scientific programmer
- software developer
- software programmer
- systems programmer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Compared to other computer related occupations, employment for computer programmers is expected to grow more slowly. New technology and sophisticated software now have the ability to write basic software code, eliminating the need for programmers to do this basic work. Because they can transmit their programs digitally, computer programmers can perform their function from anywhere in the world allowing employers to hire individuals in countries with significantly lower wages. Computer programmers are therefore at greater risk than other IT related occupations for off-shoring or contracting out of the simpler and basic programming jobs.

Employers will look for programmers who can support data communications and help implement business and intranet strategies, especially in the development of Web 2.0 business applications. Software development skills currently in demand include Java, Visual C++, Visual Basic, SQL Server, Oracle DB and MS Access. To be successful in this field, a significant amount of time is required to keep up-to-date on new technologies and their applications. Consulting and freelance work are areas of growth within this occupation. New developments in internet based sales of computer applets for mobile devices is increasing the opportunities for freelance work, but also increasing the level of competition.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills

- team work skills

Employment Requirements

- A bachelor's degree in computer science or in another discipline with a significant programming component
or
Completion of a college program in computer science is usually required.
- Specialization in programming for engineering and scientific applications requires specific post-secondary study or experience.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2174&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2174&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills:**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2174&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2174&province=35&keyword=&action=final&display=job

Conservation and Fishery Officers

NOC 2224-B

Occupation Description

Conservation and fishery officers enforce the federal and provincial regulations established for the protection of fish, wildlife and other natural resources and collect and relay information on resource management. They are employed by federal and provincial government departments.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 15

% of People Employed in Sarnia Lambton in this Occupation

RV (Recreational Vehicle) Parks and Recreational Camps	NAICS 7212	66.7%
Provincial and Territorial Public Administration	NAICS 9120	66.7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	50%
45 to 64 years	10	50%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
72	Accommodation and Food Services	10	66.7%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 33.3%

This Occupation May Also Be Called:

- conservation officer
- fish and wildlife officer
- fishery officer
- forest ranger – wildlife management
- game officer
- game warden
- natural resources officer
- park ranger

Employment Prospects

No information available at this time.

Employment Requirements

- Completion of a one- to three-year college program in renewable resources management is required.
- On-the-job training and courses related to law enforcement and resource management are provided.
- A class-5 driver's licence, pesticide applicator's licence and explosives licence may be required.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2224&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2224&province=35&keyword=&action=final&display=training

❖ Essential Skills:

No information available at this time.

❖ Work Habits:

No information available at this time.

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2224&province=35&keyword=&action=final&display=job

Construction Estimators

NOC 2234-B

Occupation Description

Construction estimators analyze costs of and prepare estimates on civil engineering, architectural, structural, electrical and mechanical construction projects. They are employed by residential, commercial and industrial construction companies and major electrical, mechanical and trade contractors or they may be self-employed.

Total Number of Workers in Sarnia Lambton 80

Number of People Employed in this Occupation in Sarnia Lambton 65

% of People Employed in Sarnia Lambton in this Occupation

Building Equipment Contractors	NAICS 2382	30.8%
Non-residential Building Construction	NAICS 2362	23.1%
Architectural, Engineering and Related Services	NAICS 5413	23.1%
Highway, Street and Bridge Construction	NAICS 2373	15.4%
Building Finishing Contractors	NAICS 2383	15.4%

% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	30	50%
45 to 64 years	30	50%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$75,317

Number of People in Sarnia Lambton's Employed Workforce 75

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
23	Construction	45	69.2%
54	Professional, scientific and technical services	15	23.1%
-	-	-	-

Job Loss/Gain Information 61.5%

This Occupation May Also Be Called:

- chief estimator – construction
- construction estimator
- cost estimator – construction
- principal estimator – construction
- professional quantity surveyor
- quantity surveyor – construction

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Employment for these workers often moves in tandem with the construction sector which is vulnerable to labour market conditions.

Construction estimators are often required by smaller companies to serve as project managers or schedulers. The job of construction estimators is largely an entry level position but with experience and advancement they can become senior project managers.

Due to rapidly changing technology in this field, people in these occupations should plan on periods of retraining and professional development. New entrants with co-op experience and highly developed computer expertise are likely to enjoy the best employment prospects.

Employment Requirements

- Completion of secondary school is required.
- Completion of a three-year college program in civil or construction engineering technology
or
Several years of experience as a qualified tradesperson in a construction trade such as plumbing, carpentry or electrical, are required
- Certification by the Canadian Institute of Quantity Surveyors is usually required.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2234&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2234&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2234&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2234&province=35&keyword=&action=final&display=job

Database Analysts and Data Administrators**NOC 2172-A****Occupation Description**

Database analysts design, develop and administer data management solutions using database management software. Data administrators develop and implement data administration policy, standards and models. They are employed in information technology consulting firms and in information technology units throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 50

Number of People Employed in this Occupation in Sarnia Lambton 40

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Product Manufacturing	NAICS 3241	25%
Basic Chemical Manufacturing	NAICS 3251	25%
Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	25%
Architectural, Engineering and Related Services	NAICS 5413	25%
Elementary and Secondary Schools	NAICS 6111	25%

% of Occupations in Sarnia Lambton's Employed Workforce 0.08%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	22.2%
25 to 44 years	10	22.2%
45 to 64 years	25	55.6%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$90,743

Number of People in Sarnia Lambton's Employed Workforce 55

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	25	62.5%
54	Professional, scientific and technical services	10	25%
61	Educational Services	10	25%

Job Loss/Gain Information

37.5%

This Occupation May Also Be Called:

- data administrator
- data custodian
- data dictionary administrator
- data warehouse analyst
- database administrator (DBA)
- database analyst
- database architect
- technical architect – database

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Openings will be created as workers leave the labour force or move into managerial positions. In an economic downturn, employment in this sector can fall below the forecasted rate. However, companies across all sectors will continue to require these professionals but at a more measured pace over the short term. The supply of new graduates should meet industry needs.

Individuals with the right set of skills will have the best employment prospects. Specific experience with business processes, specialized knowledge in a particular industry and proficiency in relevant computer applications are essential. Employers look for individuals with a multidisciplinary background and well developed analytical and communications skills. To be successful in this field, a significant amount of time is required to keep up-to-date on new technologies and their applications. Consulting and freelance work are areas of growth within this occupation.

Employment Requirements

- A bachelor's degree, usually in computer science or in mathematics
or
Completion of a college program in computer science is usually required.
- Computer programming experience is usually required.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2172&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2172&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2172&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2172&province=35&keyword=&action=final&display=job

Dietitians and Nutritionists**NOC 3132-A****Occupation Description**

Dietitians and nutritionists plan, implement and oversee nutrition and food service programs. They are employed in a variety of settings including hospitals, extended care facilities, public health centres, the food and beverage industry, the pharmaceutical industry, educational institutions, sports organizations and government, or may work as private consultant.

Total Number of Workers in Sarnia Lambton 50

Number of People Employed in this Occupation in Sarnia Lambton 35

% of People Employed in Sarnia Lambton in this Occupation

Out-Patient Care Centres	NAICS 6214	28.6%
Hospitals	NAICS 6220	28.6%

% of Occupations in Sarnia Lambton's Employed Workforce 0.06%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	25%
25 to 44 years	20	50%
45 to 64 years	10	25%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$49,484

Number of People in Sarnia Lambton's Employed Workforce 40

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
62	Health Care and Social Assistance	25	62.5%
44-45	Retail Trade	10	25%
91	Public Administration	10	25%

Job Loss/Gain Information 28.6%

This Occupation May Also Be Called:

- administrative dietitian
- clinical dietitian
- community nutritionist
- consultant dietitian
- dietitian
- nutrition and dietetics researcher
- nutritionist
- public health dietitian
- registered dietitian (RD)
- registered nutritionist

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Job growth will result from an increasing emphasis on disease prevention through improved dietary habits. A growing and aging population will boost demand for nutritional counselling and treatment in hospitals, residential care facilities, schools, prisons, community health programs, and home health care agencies. Public interest in nutrition and increased emphasis on health education and prudent lifestyles also will spur demand, especially in food service management. In addition to employment growth, job openings will result from the need to replace experienced workers who retire or leave the occupation for other reasons.

Employment growth for this occupation, however, may be constrained if some employers substitute other workers, such as health educators, food service managers, and dietetic technicians, to do work related to nutrition. Also, demand for nutritional therapy services is related to the ability of patients to pay, either out-of-pocket or through health insurance, and although more insurance plans now cover nutritional therapy services, the extent of such coverage varies among plans. Growth may be curbed by limitations on insurance reimbursement for dietetic services.

Dietitians with specialized training, an advanced degree, or certifications will experience the best job opportunities. Those specializing in renal and diabetic nutrition or gerontological nutrition will benefit from the growing number of diabetics and the aging of the population.

Employment Requirements

- Dietitians require a master's or bachelor's degree in dietetics, nutrition or a related field such as food and nutritional science or biochemistry
and
Approximately 40 weeks of supervised practicum training.
- Registration with a regulatory body is required in all provinces for dietitians.
- Membership in the national association, Dietitians of Canada, may be required for dietitians to practise.
- Nutritionists usually require the same education and training as dietitians.
- Registration with a regulatory body is required for nutritionists in British Columbia, Alberta, Quebec and (as a registered dietician-nutritionist) in New Brunswick.
- Membership with the national association, Dietitians of Canada, and/or a provincial regulatory body is available for nutritionists who have the same education and practicum training as dietitians.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=3132&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=3132&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=3132&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=3132&province=35&keyword=&action=final&display=job

Drafting Technologists and Technicians**NOC 2253-B****Occupation Description**

Drafting technologists and technicians prepare engineering designs, drawings and related technical information, in multidisciplinary engineering teams or in support of engineers, architects or industrial designers, or they may work independently. They are employed by consulting and construction companies, utility, resource and manufacturing companies, all levels of government and by a wide range of other establishments.

Total Number of Workers in Sarnia Lambton 150

Number of People Employed in this Occupation in Sarnia Lambton 145

% of People Employed in Sarnia Lambton in this Occupation

Architectural, Engineering and Related Services	NAICS 5413	58.6%
Natural Gas Distribution	NAICS 2212	6.9%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	6.9%
Architectural and Structural Metals Manufacturing	NAICS 3323	6.9%
Other Miscellaneous Manufacturing	NAICS 3399	6.9%
Employment Services	NAICS 5613	6.9%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	65	46.4%
45 to 64 years	65	46.4%
65 + years	10	7.1%

Median Income from Persons in this Occupation in Sarnia Lambton \$49,522

Number of People in Sarnia Lambton's Employed Workforce 150

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	85	58.6%
31-33	Manufacturing	35	24.1%
22	Utilities	10	6.9%

Job Loss/Gain Information

-17.1%

This Occupation May Also Be Called:

- architectural draftsman
- computer-assisted design and drafting technologist
- computer-assisted drafting (CAD) technician
- design and drafting technologist
- drafting technician
- drafting technologist
- draftsman
- electrical draftsman
- electromechanical draftsman
- electronic draftsman
- engineering design and drafting technologist
- mechanical draftsman
- steel detailer – drafting
- structural draftsman
- structural steel drafter-detailer
- supervisor
- drafting officer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Most job openings for this occupation will result from normal turnover and the need to replace workers who retire. Architects and engineers, as well as draftsmen, will use more effective computer aided design equipment. The supply of new graduates should be sufficient to meet demand.

Employment prospects will be better for more highly skilled individuals with knowledge of computer assisted design (CAD) and computer assisted manufacturing (CAM) software and good communication skills.

Employment Requirements

- Completion of secondary school is usually required.
- Completion of a two- to three-year college program in engineering design and drafting technology or in a related field is usually required for drafting and design technologists.
- Completion of a one- to two-year college program in drafting
or
Completion of a three- to four-year apprenticeship program
or
Four to five years of related experience plus completion of college or industry courses in drafting are usually required for drafting technicians.
- Trade certification for draftsmen is available, but voluntary in Ontario.

- Certification in engineering design and drafting technology or in a related field through provincial associations of engineering/applied science technologists and technicians may be required by employers.
- A period of supervised work experience, usually two years, is required before certification.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2253&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2253&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2253&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2253&province=35&keyword=&action=final&display=job

Electrical and Electronics Engineering Technologists and Technicians

NOC 2241-A

Occupation Description

Electrical and electronics engineering technologists and technicians may work independently or provide technical support and services in the design, development, testing, production and operation of electrical and electronic equipment and systems. They are employed by electrical utilities, communications companies, manufacturers of electrical and electronic equipment, consulting firms, and in governments and a wide range of manufacturing, processing and transportation industries.

Total Number of Workers in Sarnia Lambton 100

Number of People Employed in this Occupation in Sarnia Lambton 95

% of People Employed in Sarnia Lambton in this Occupation

Electric Power Generation, Transmission and Distribution	NAICS 2211	31.6%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	15.8%
Architectural, Engineering and Related Services	NAICS 5413	15.8%
Navigational, Measuring, Medical and Control Instruments Manufacturing	NAICS 3345	10.5%
Scientific Research and Development Services	NAICS 5417	10.5%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	NAICS 8113	10.5%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	15	15%
25 to 44 years	20	20%
45 to 64 years	65	65%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$62,179

Number of People in Sarnia Lambton's Employed Workforce 105

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
22	Utilities	30	31.6%
31-33	Manufacturing	20	21.1%
54	Professional, scientific and technical services	15	15.8%

Job Loss/Gain Information

15.8%

This Occupation May Also Be Called:

- communications technologist
- electrical engineering technician
- electrical engineering technologist
- electricity distribution network technologist
- electronics design technologist
- electronics engineering technician
- electronics engineering technologist
- electronics manufacturing technician
- electronics manufacturing technologist
- lighting technologist
- metering technologist
- microwave maintenance technician
- production support technician – electronics manufacturing

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. Continued expansion of electrical and electronic products and systems into all areas of industry and manufacturing processes will continue to generate employment opportunities. Manufacturing, business services and utilities account for most of the employment for this occupational group. However, in an economic downturn, employment in manufacturing and business services decline and demand for these professionals falls.

In the long term as companies begin to modernize and update manufacturing facilities processes and product designs in order to become more competitive globally, employment opportunities may increase as these initiatives often depend upon the services of electrical and electronics engineering technicians and technologists.

Innovations and rapid change in microcomputers and telecommunications applications means that people working in this occupational group will need continuous upgrading and professional development to keep up with the changes.

Employment Requirements

- Completion of a two- or three-year college program in electrical or electronics engineering technology, computer engineering technology, telecommunications technology or an equivalent is usually required for electrical or electronics engineering technologists.
- Completion of a one- or two-year college program in electrical or electronics engineering technology is usually required for electrical or electronics engineering technicians.

- Certification in electrical or electronics engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2241&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2241&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2241&province=35&keyword=&action=final&display=job

Electrical and Electronics Engineers

NOC 2133-A

Occupation Description

Electrical and electronics engineers design, plan, research, evaluate and test electrical and electronic equipment and systems. They are employed by electrical utilities, communications companies, manufacturers of electrical and electronic equipment, consulting firms, and by a wide range of manufacturing, processing and transportation industries and government.

Total Number of Workers in Sarnia Lambton 215

Number of People Employed in this Occupation in Sarnia Lambton 135

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	55.5%
Basic Chemical Manufacturing	NAICS 3251	14.8%
Oil and Gas Extraction	NAICS 2111	7.4%
Electric Power Generation, Transmission and Distribution	NAICS 2211	7.4%
Construction, Forestry, Mining, and Industrial Machinery, Equipment and Supplies Wholesaler-Distributors	NAICS 4172	7.4%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	45	33.3%
45 to 64 years	80	59.3%
65 + years	10	7.4%

Median Income from Persons in this Occupation in Sarnia Lambton \$91,477

Number of People in Sarnia Lambton's Employed Workforce 120

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	80	59.3%
31-33	Manufacturing	25	18.5%
22	Utilities	10	7.4%

Job Loss/Gain Information

11.1%

This Occupation May Also Be Called:

- avionics engineer
- control systems engineer
- design engineer, electrical
- distribution planning engineer, electrical
- electrical engineer
- electrical network engineer
- electronics engineer
- instrumentation and control engineer
- planning engineer, electrical systems
- process control engineer, electrical
- roadway lighting design engineer
- television systems engineer
- test engineer, electronics

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. As companies continue to introduce new technologies, employment opportunities for these workers will improve. However, international competition and the use of engineering services performed in other countries will limit employment growth.

Engineers will have to continually upgrade their skills in order to keep up with the rapid changes in technology. Firms face intense international competition requiring their engineers to be at the leading edge of their field. There are likely to be significant new opportunities for these engineers in setting up computerized production systems. This may require electrical and electronic engineers to work more closely with mechanical engineers.

Employment Requirements

- A bachelor's degree in electrical or electronics engineering or in an appropriate related engineering discipline is required.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2133&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2133&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2133&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2133&province=35&keyword=&action=final&display=job

Electronic Service Technicians (Household and Business Equipment)**NOC 2242-B****Occupation Description**

Electronic service technicians service and repair household and business electronic equipment such as audio and video systems, computers and peripherals, office equipment and other consumer electronic equipment and assemblies. They are employed by electronic service and retail establishments, by wholesale distributors and within service departments of electronic manufacturing companies.

Total Number of Workers in Sarnia Lambton 145

Number of People Employed in this Occupation in Sarnia Lambton 90

% of People Employed in Sarnia Lambton in this Occupation

Computer and Communications Equipment and Supplies Wholesaler-Distributors	NAICS 4173	16.7%
Other Machinery, Equipment and Supplies Wholesaler-Distributors	NAICS 4179	16.7%
Electronics and Appliance Stores	NAICS 4431	16.7%
Plastic Product Manufacturing	NAICS 3261	11.1%
Rail Transportation	NAICS 4821	11.1%
Investigation and Security Services	NAICS 5616	11.1%
Electronic and Precision Equipment Repair and Maintenance	NAICS 8112	11.1%
Personal and Household Goods Repair and Maintenance	NAICS 8114	11.1%
Federal Protective Services	NAICS 9112	11.1%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	11.8%
25 to 44 years	45	52.9%
45 to 64 years	30	35.3%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$35,061

Number of People in Sarnia Lambton's Employed Workforce 135

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
41	Wholesale Trade	25	27.8%
31-33	Manufacturing	20	22.2%
44-45	Retail Trade	15	16.7%

Job Loss/Gain Information

-25%

This Occupation May Also Be Called:

- alarm system technician
- audio-video service technician
- computer service technician
- electronic service technician apprentice
- electronic service technician supervisor
- field service technician
- electronic products
- office equipment service technician
- photocopier machine technician
- radio and television service technician
- satellite antenna servicer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Technological advancements have lowered the price and improved the quality of home entertainment centres and other electronic products thereby reducing the demand for qualified technicians. However, in the future, growth might be spurred by the introduction of sophisticated digital equipment. As long as the price remains high, consumers will choose to repair rather than replace expensive electronic items. The proliferation of new electronic devices and rapidly changing technology means that additional demand will be generated more through warranty related repairs than through postwarranty repairs by consumers.

Firms recruit new graduates from community colleges. They also utilize informal networks and newspaper advertisements as methods of seeking new employees. People working in these occupations should expect to undergo intermittent retraining and professional development to keep up with rapid technological changes. Opportunities will be best for those with knowledge of electronics and who have related hands-on experience and good customer service skills.

Employment Requirements

- Completion of a two- to three-year college program in electronics
or
Completion of a four-year apprenticeship program in electronic servicing and repair
or
Completion of high school or college courses in electronics and on-the-job training is required
- Trade certification for electronic technician, consumer products is compulsory in Alberta and available, but voluntary, in Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, British Columbia, Nunavut, the Northwest Territories and the Yukon.

- Interprovincial trade certification (Red Seal) is also available to qualified electronics technicians, consumer products.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2242&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2242&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2242&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2242&province=35&keyword=&action=final&display=job

Engineering Inspectors and Regulatory Officers**NOC 2262-B****Occupation Description**

Engineering inspectors and regulatory officers inspect transportation vehicles such as aircraft, watercraft, automobiles and trucks and weighing and measuring devices such as scales and meters as well as industrial instruments, processes and equipment for conformity to government and industry standards and regulations. They are employed by government agencies and in the private sector.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Federal Protective Services	NAICS 9112	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	10	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	90	52.9%
54	Professional, scientific and technical services	65	38.2%
48-49	Transportation and warehousing	10	5.9%

Job Loss/Gain Information 0%

This Occupation May Also Be Called:

- airworthiness inspector
- elevator inspector
- engineering inspector
- inspector, air carrier maintenance
- inspector, air transport
- inspector, electricity and gas meters
- inspector, weights and measures
- insurance loss prevention inspector
- marine damage surveyor
- motor vehicle defects investigator
- railway accident investigation officer
- regulatory officer, engineering

Employment Prospects

No information available at this time.

Employment Requirements

- University degree or college diploma in an appropriate engineering field
or
Trade qualifications and extensive related work experience are required.
- Appropriate professional engineering or engineering technology certification and licences may be required.

Working Conditions

No information available at this time.

Links❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2262&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2262&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2262&sort=N>

❖ **Work Habits:**

http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP_Skills_and_Work_Habits

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2262&province=35&keyword=&action=final&display=job

Farm Supervisors and Specialized Live Stock Workers

NOC 8253-B

Occupation Description

Farm supervisors supervise the work of general farm workers and harvesting labourers and perform general farm duties. Specialized livestock workers carry out feeding, health and breeding programs on dairy, beef, sheep, poultry and hog farms and may also supervise general farm workers and harvesting labourers.

Total Number of Workers in Sarnia Lambton 40

Number of People Employed in this Occupation in Sarnia Lambton 40

% of People Employed in Sarnia Lambton in this Occupation

Farms	NAICS 1110	87.5%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.06%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	25	62.5%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$19,425.00

Number of People in Sarnia Lambton's Employed Workforce 40

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture	40	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 0%

This Occupation May Also Be Called:

- cattle herds person
- dairy herds person
- farm foreman/woman
- farm supervisor
- feedlot foreman/woman
- hog operation supervisor
- horse trainer
- poultry farm foreman/woman
- ranch foreman/woman
- swine herds person
- vegetable farm foreman/woman.

Employment Prospects

No information available at this time.

Employment Requirements

- Farm supervisors and specialized livestock workers may require a college certificate or other specialized training in agriculture or livestock husbandry.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8253&province=35&titleKeyword=farm&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8253&province=35&titleKeyword=farm&action=final&display=training

❖ Essential Skills

No information available at this time.

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8253&province=35&titleKeyword=farm&action=final&display=job

Farmers and Farm Managers

NOC 8251-B

Occupation Description

Farmers and farm managers manage the operations and functions of a farm. They are responsible for growing crops, raising and breeding livestock, poultry and other animals and marketing farm products.

Total Number of Workers in Sarnia Lambton 1,995

Number of People Employed in this Occupation in Sarnia Lambton 1,930

% of People Employed in Sarnia Lambton in this Occupation

Farms	NAICS 1110	98%
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% of Occupations in Sarnia Lambton's Employed Workforce 3.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	50	13.8%
25 to 44 years	105	29%
45 to 64 years	150	41.6%
65 + years	55	15.3%

Median Income from Persons in this Occupation in Sarnia-Lambton \$14,076

Number of People in Sarnia Lambton's Employed Workforce 1,985

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture	1895	98%
44-45	Retail Trade	10	0.5%
48-49	Transportation and Warehousing	10	0.5%

Job Loss/Gain Information 4%

This Occupation May Also Be Called:

- apiarist
- apple grower
- breeder, domestic animals
- chicken farmer
- dairy farmer
- feedlot manager
- fruit farmer
- fur farmer
- grape grower
- hog breeder
- horse breeder
- maple syrup producer
- market gardener
- potato farmer
- rancher
- seed grower
- sod farmer
- vegetable grower
- vineyard manager
- viticulturist
- wheat farmer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. The overwhelming majority of job openings will occur from replacement needs as older farmers retire and fewer people enter the profession. The long-term trend toward consolidation of farms will mediate employment opportunities for this occupational group. Increasing productivity in the highly efficient agricultural industry is expected to meet domestic and export requirements for food which mean fewer farmers and farm managers will be required to do the same amount of work. Corn farmers who grow this crop for ethanol production will likely face good prospects as ethanol becomes more popular for use as fuel in automobiles.

Changes occurring in the industry are raising the skill levels required. Farms and farm managers will be required to have training in management, human resources, farm technology, marketing, communications and financial skills. In addition, the adoption of biotechnology and computerized systems will require farm managers to possess skills in these areas.

Employment Requirements

- Extensive farming experience (obtained as a farmer, farm supervisor or specialized livestock worker or by working on a family farm) is usually required.
- A college diploma in agriculture may be required.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8251&province=35&titleKeyword=&action=final&display=union

- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8251&province=35&titleKeyword=&action=final&display=training
- ❖ **Essential Skills**
No information available at this time.
- ❖ **Work Habits:**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits>
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8251&province=35&titleKeyword=&action=final&display=job

Financial and Investment Analysts

NOC 1112-A

Occupation Description

Financial and investment analysts collect and analyze financial information such as economic forecasts, trading volumes and the movement of capital, financial backgrounds of companies, historical performances and future trends of stocks, bonds and other investment instruments to provide financial and investment or financing advice for their company or their company's clients. Their studies and evaluations cover areas such as takeover bids, private placements, mergers or acquisitions. Financial analysts are employed by a wide range of establishments throughout the private and public sector, such as banks, brokerage houses, insurance companies, investment companies, manufacturing firms, trust companies, utility companies and underwriting firms. Investment analysts are employed primarily by brokerage houses and trust companies.

Total Number of Workers in Sarnia Lambton 30

Number of People Employed in this Occupation in Sarnia Lambton 35

% of People Employed in Sarnia Lambton in this Occupation

Management, Scientific and Technical Consulting Services	NAICS 5416	42.9%
Agencies, Brokerages and Other Insurance Related Activities	NAICS 5242	28.6%

% of Occupations in Sarnia Lambton's Employed Workforce 0.05%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	30	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$50,013

Number of People in Sarnia Lambton's Employed Workforce 30

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
52	Finance and Insurance	15	42.9%
54	Professional, scientific and technical services	15	42.9%
-	-	-	-

Job Loss/Gain Information

42.9%

This Occupation May Also Be Called:

- chartered financial analyst
- financial analyst
- investment analyst
- money market analyst
- portfolio manager
- research associate, financial services

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. The demand for this occupation is sensitive to changes in the financial sector. Although banks and credit institutions have expanded the range of financial services which they offer, corporate restructuring, acquisitions, mergers, and financial sector slowdowns may limit employment prospects. Furthermore, restructuring within the financial services industry internationally will increase the supply of expatriate workers who could potentially return to the Ontario job market, thereby increasing competition for available openings over the forecast period. The number of new graduates should meet industry needs.

Increasingly, financial institutions seek professionals with a broad range of financial sector skills. Employers look for individuals with financial analyst accreditation and a variety of financial software skills, as well as communications, conceptual thinking and teamwork skills.

Employment Requirements

- A bachelor's degree in commerce, business administration or economics *and* on-the-job training and industry courses and programs are usually required
- A master's degree in business administration (MBA) (concentration in finance) or in finance may be required.
- The Chartered Financial Analyst (CFA) designation, available through a program conducted by the Institute of Chartered Financial Analysts in the United States, may be required by some employers.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1112&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1112&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
No information available at this time.
- ❖ **Work Habits:**
No information available at this time.
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1112&province=35&keyword=&action=final&display=job

Financial Auditors and Accountants

NOC 1111-A

Occupation Description

Financial auditors examine and analyze the accounting and financial records of individuals and establishments to ensure accuracy and compliance with established accounting standards and procedures. Accountants plan, organize and administer accounting systems for individuals and establishments. Financial auditors and accountants are employed by auditing and accounting firms throughout the private and public sectors, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 315

Number of People Employed in this Occupation in Sarnia Lambton 290

% of People Employed in Sarnia Lambton in this Occupation

Accounting, Tax Preparation, Bookkeeping and Payroll Services	NAICS 5412	34.5%
Electric Power Generation, Transmission and Distribution	NAICS 2211	8.7%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	7%
Gambling Industries	NAICS 7132	7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.5%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	95	39.5%
45 to 64 years	130	54%
65 + years	15	6.5%

Median Income from Persons in this Occupation in Sarnia Lambton \$52,211

Number of People in Sarnia Lambton's Employed Workforce 315

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	105	36.2%
31-33	Manufacturing	45	15.5%
22	Utilities	30	10.3%

Job Loss/Gain Information

-5%

This Occupation May Also Be Called:

- accountant
- certified general accountant (CGA)
- certified management accountant (CMA)
- chartered accountant (CA)
- chief accountant
- financial auditor
- income tax expert
- industrial accountant
- internal auditor

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Given the large size of this occupational group, however, replacement needs will still create a substantial number of new positions yearly. In addition, the growth in the number of new businesses, the need for greater financial efficiencies and increased public accountability will continue to fuel job demand for this occupation over the next few years.

Recent changes to the Ontario Public Accounting Act now enable qualified Chartered Accountants, Certified General Accountants and Certified Management Accountants to obtain a license to practice public accounting which was once restricted to Chartered Accountants. This consolidation will increase competition within the industry. Employment opportunities will be best for those with computer software experience, budget analysis, taxation skills, financial and investment planning and information technology consulting experience. Recent global accounting scandals will also make forensic and investigative accounting experience more valuable as firms are placed under greater financial scrutiny. In the future, accountants will need to assist management with planning and internal accounting practices in order to reduce exposure to risks and improve financial operations.

Employment Requirements

- A bachelor's degree is required to become an accountant
- Completion of a professional training program approved by a provincial institute of chartered accountants or Society of Certified General Accountants or Society of Management Accountants and, depending on the province, either two years or 30 months of on-the-job training
- Auditors require the same training as an accountant and some experience in accounting
- Auditors may require recognition by the Institute of Internal Auditors.

To act as a trustee in bankruptcy proceedings, auditors and accountants must hold a licence as a trustee in bankruptcy. Licensing by the provincial or territorial governing body is usually required for accountants and auditors practicing public accounting.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1111&province=35&keyword=keyword&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1111&province=35&keyword=keyword&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=1111&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=1111&province=35&keyword=keyword&action=final&display=job

Fishing Masters and Officers**NOC 8261-B****Occupation Description**

Fishing masters and officers manage and operate saltwater and freshwater fishing vessels greater than 100 gross tonnes to pursue and land fish and other marine life. They are employed by establishments engaged in operating commercial fishing vessels.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Fishing	NAICS 1141	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture, Forestry, Fishing and Hunting	10	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- captain, fishing vessel
- captain, offshore fishing vessel
- deck officer, fishing vessel
- first mate, fishing vessel
- fishing master
- master, fishing vessel
- mate, fishing vessel
- trawler captain

Employment Prospects

No information available at this time.

Employment Requirements

- Some secondary school education is usually required.
- One to two years of experience as a fishing vessel deckhand is required.
- Captains require one year of service as officer in charge of the watch.
- A Fishing Master's Certificate is required for all occupations in this unit group.
- A commercial fishing licence is required.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8261&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8261&province=35&keyword=&action=final&display=training

❖ Essential Skills

No information available at this time.

❖ Work Habits:

No information available at this time.

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8261&province=35&keyword=&action=final&display=job

Fishing Vessel Skippers and Fishermen/women**NOC 8262-B****Occupation Description**

Fishing vessel skippers and fishermen/women operate fishing vessels to pursue and land fish and other marine life. They are usually self-employed owner-operators of fishing vessels.

Total Number of Workers in Sarnia Lambton 35

Number of People Employed in this Occupation in Sarnia Lambton 20

% of People Employed in Sarnia Lambton in this Occupation

Fishing	NAICS 1141	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.05%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	50%
25 to 44 years	0	0%
45 to 64 years	10	50%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 30

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture, Forestry, Fishing and Hunting	10	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 50%

This Occupation May Also Be Called:

- fisherman/woman
- fishing vessel skipper
- inshore fisherman/woman
- lobster fisherman/woman
- longliner fisherman/woman
- seiner fisherman/woman

Employment Prospects

No information available at this time.

Employment Requirements

- Several years of experience as fishing vessel crew member or helper are usually required.
- A commercial fishing licence is required.
- Licenses are required for each species of fish pursued.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8262&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8262&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=8262&sort=N>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8262&province=35&keyword=&action=final&display=job

Forestry Professionals

NOC 2122-A

Occupation Description

Forestry professionals conduct research, develop plans and administer and direct programs related to the management and harvesting of forest resources. They are employed by the forest industry, provincial and federal governments, consulting companies, educational institutions and other industries, or they may be self-employed.

Total Number of Workers in Sarnia Lambton

No information available at this time.

Number of People Employed in this Occupation in Sarnia Lambton

No information available at this time.

% of People Employed in Sarnia Lambton in this Occupation

No information available at this time.

% of Occupations in Sarnia Lambton's Employed Workforce

No information available at this time.

Age Profile of People Who Work in Sarnia Lambton in this Occupation

No information available at this time.

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce

No information available at this time.

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

No information available at this time.

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- appraisal forester
- consulting forester
- district forester
- forest engineer
- forester
- forestry superintendent
- professional forester
- regional inventory officer – forestry
- registered professional forester (RPF)

Employment Prospects

No information available at this time.

Employment Requirements

- A bachelor's degree in forestry or forestry engineering is required.
- Certification as a forester or forest engineer by provincially chartered associations is required in provinces having such associations.
- A two-year practicum of supervised work experience and professional examinations are usually required before registration.
- Supervisory and senior occupations in this unit group require additional experience.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2122&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2122&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2122&sort=N>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2122&province=35&keyword=&action=final&display=job

Forestry Technologists and Technicians**NOC 2223-B****Occupation Description**

Forestry technologists and technicians may work independently or perform technical and supervisory functions in support of forestry research, forest management, forest harvesting, forest resource conservation and environmental protection. They are employed by the forest industry sector, provincial and federal governments, consulting firms, and other industries and institutions or they may be self-employed.

Total Number of Workers in Sarnia Lambton 10**Number of People Employed in this Occupation in Sarnia-Lambton**

No information available at this time.

% of People Employed in Sarnia Lambton in this Occupation

No information available at this time.

% of Occupations in Sarnia –Lambton’s Employed Workforce 0.015%**Age Profile of People Who Work in Sarnia-Lambton in this Occupation**

No information available at this time.

Median Income from Persons in this Occupation in Sarnia-Lambton

No information available at this time.

Number of People in Sarnia-Lambton’s Employed Workforce

No information available at this time.

Top Three Industrial Sectors Based on Full Time Employment in Sarnia-Lambton

No information available at this time.

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- conservation technician – forestry
- cruising technician – forestry
- enforcement officer – forestry
- extension ranger – forestry
- fire suppression officer – forestry
- forest fire technician
- forest survey technician
- forest technician
- forestry technician
- forestry technologist
- resource officer
- forest inventory
- resource technician – forestry
- scaler technician – logging
- scaling co-ordinator – logging
- silviculture technician

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. Increased mechanization of logging operations particularly in harvesting and site preparation and improvements in logging equipment will continue to depress demand for forestry technologists and technicians. However demand for forestry technologists and technicians may increase in the areas of forest conservation as more land is set aside to protect natural resources or wildlife habitats.

People working in these fields should plan on periods of retraining and professional development to learn new technologies. Increasingly, they will need certification from a professional organization in their field.

Employment Requirements

- Completion of a one- to three-year college program in forestry technology or in a renewable resource program or forest ranger program is usually required.
- Certification by, or registration with, a provincial association as a forestry technologist or technician may be required.
- Certification or licensing as a scaler is required for some positions.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2223&province=35&titleKeyword=Forestry&action=final&display=union

- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2223&province=35&titleKeyword=Forestry&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2223&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2223&province=35&titleKeyword=Forestry&action=final&display=job

Geological and Mineral Technologists and Technicians**NOC 2212-A****Occupation Description**

Geological and mineral technologists and technicians provide technical support and services or may work independently in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy, metallurgical engineering and environmental protection. They are employed by petroleum and mining companies, consulting geology and engineering firms, and by governments and educational institutions as well as by a variety of manufacturing, construction and utilities companies.

Total Number of Workers in Sarnia Lambton 20

Number of People Employed in this Occupation in Sarnia Lambton 20

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Products Manufacturing	NAICS 3241	50%
Architectural, Engineering and Related Services	NAICS 5413	50%

% of Occupations in Sarnia Lambton's Employed Workforce 0.03%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	10	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$92,530

Number of People in Sarnia Lambton's Employed Workforce 20

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	90	52.9%
54	Professional, scientific and technical services	65	38.2%
48-49	Transportation and warehousing	10	5.9%

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- assayer
- geological technician
- geophysical technologist
- groundwater technologist
- log technician
- marine geoscience technologist
- metallurgical technologist
- mineralogy technician
- mining engineering technologist
- mining technologist
- petroleum engineering technologist
- petroleum technician
- petrology technician
- reservoir engineering technician
- rock mechanics technician
- seismic technician
- welding technologist

Employment Prospects

No information available at this time.

Employment Requirements

- Geological and mineral technologists usually require completion of a two- to three-year college program in geological technology, petroleum technology, petroleum engineering technology, hydrogeology or groundwater technology, mining technology, mining engineering technology, mineralogy, metallurgical technology, or welding technology.
- Geophysics technologists usually require completion of a two- to three-year college program in electronics technology
- Geological and mineral technicians usually require completion of a one- to two-year college program in a related field.
- Certification in geological and mineral technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.
- A period of supervised work experience, usually two years, is required before certification.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workinginCanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2212&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workinginCanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2212&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2212&province=35&keyword=&action=final&display=job

Industrial and Manufacturing Engineers

NOC 2141-A

Occupation Description

Industrial and manufacturing engineers conduct studies, and develop and supervise programs to achieve the best use of equipment, human resources, technology, materials and procedures to enhance efficiency and productivity. Industrial and manufacturing engineers are employed in consulting firms, manufacturing and processing companies, in government, financial, health care and other institutions, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 70

Number of People Employed in this Occupation in Sarnia Lambton 65

% of People Employed in Sarnia Lambton in this Occupation

Basic Chemical Manufacturing	NAICS 3251	15.4%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	15.4%
Pesticide, Fertilizer and Other Agricultural Chemical Manufacturing	NAICS 3253	15.4%
New Motor Vehicle Parts and Accessories Wholesaler-Distributors	NAICS 4152	15.4%
Other Pipeline Transportation	NAICS 4869	15.4%
Architectural, engineering and related services	NAICS 5413	15.4%
Scientific Research and Development Services	NAICS 5417	15.4%

% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	25	62.5%
45 to 64 years	15	37.5%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$118,321

Number of People in Sarnia Lambton's Employed Workforce 70

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	40	61.5%
54	Professional, scientific and technical services	15	23.1%
48-49	Transportation and warehousing	10	15.5%

Job Loss/Gain Information

-27.7%

This Occupation May Also Be Called:

- engineer, computer integrated manufacturing (CIM)
- fire prevention engineer
- industrial engineer
- manufacturing engineer
- plant engineer
- production engineer
- quality control engineer
- safety engineer
- work measurement engineer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. This occupation is primarily employed in the manufacturing sector and is sensitive to economic cycles. However, despite periods of economic downturns, firms will continue to look for new ways to reduce costs and raise productivity so they will increasingly look to industrial engineers to develop more efficient processes. This will lead to job growth for these engineers despite declining employment overall.

The increased emphasis on product quality will require engineers to have expertise in quality control to meet international quality standards. Employment is expected to be particularly good for optics engineers because of the growing use of fibre optics to transfer data over the Internet.

Employment Requirements

- A bachelor's degree in industrial engineering or in a related engineering discipline is required.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2141&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2141&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2141&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2141&province=35&keyword=&action=final&display=job

Industrial Engineering and Manufacturing Technologists and Technicians

NOC 2233-A

Occupation Description

Industrial engineering and manufacturing technologists and technicians may work independently or provide technical support and services in the development of production methods, facilities and systems, and the planning, estimating, measuring and scheduling of work. They are employed by manufacturing and insurance companies, government departments, and establishments in other industries.

Total Number of Workers in Sarnia Lambton 135

Number of People Employed in this Occupation in Sarnia Lambton 125

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Product Manufacturing	NAICS 3241	24%
Architectural, Engineering and Related Services	NAICS 5413	12%
Support Activities for Mining and Oil and Gas Extraction	NAICS 2131	8%
Basic Chemical Manufacturing	NAICS 3251	8%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	8%
Non-Ferrous Metal (except Aluminum) Production and Processing	NAICS 3314	8%
Boiler, Tank and Shipping Container Manufacturing	NAICS 3324	8%
Agricultural, Construction and Mining Machinery Manufacturing	NAICS 3331	8%
Other Miscellaneous Manufacturing	NAICS 3399	8%
Petroleum Product Wholesaler-Distributors	NAICS 4121	8%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	8%
25 to 44 years	35	28%
45 to 64 years	80	64%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$66,534

**Number of People in Sarnia Lambton's
Employed Workforce**

125

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	80	64%
54	Professional, scientific and technical services	15	12%
48-49	Transportation and warehousing	10	8%

Job Loss/Gain Information

52%

This Occupation May Also Be Called:

- CAD/CAM programmer
- industrial engineering technician
- industrial engineering technologist
- loss prevention technologist
- manufacturing technician
- manufacturing technologist
- planning technician
- plastics manufacturing technician
- pulp and paper manufacturing technologist
- quality assurance technologist
- scheduling technician – manufacturing
- textile technologist
- time study analyst

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. Majority of these technologists and technicians work in the manufacturing sector, which is experiencing a decline while undergoing modernization and restructuring. In an economic downturn, the manufacturing sector experiences downsizing. However, technologists and technicians are more dispersed across occupational categories and could look for work in fields other than engineering or technology such as general science.

People working in this field should expect to need intermittent retraining and professional development to keep up with rapid technological change.

Employment Requirements

- Completion of a two- or three-year college program or equivalent in industrial engineering technology, pulp and paper technology, plastics technology, textile technology, manufacturing technology or a related discipline is usually required for industrial engineering or manufacturing technologists.
- Completion of a one- or two-year college program in industrial engineering technology or in a related discipline is usually required for industrial engineering or manufacturing technicians.

- Certification in industrial engineering or manufacturing technology or in a related field is available through provincial or territorial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.
- A college diploma in manufacturing technology and/or trade certification and experience in machining and tooling or metalworking is required for CAD-CAM/CNC programmers.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2233&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2233&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2233c&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2233&province=35&keyword=&action=final&display=job

Industrial Instrument Technicians and Mechanics**NOC 2243-B****Occupation Description**

Industrial instrument technicians and mechanics repair, maintain, calibrate, adjust, and install industrial measuring and controlling instrumentation. They are employed by pulp and paper processing companies, nuclear and hydro power generating companies, mining, petrochemical and natural gas companies, industrial instrument and other manufacturing companies, and by industrial instrument servicing establishments.

Total Number of Workers in Sarnia Lambton 190

Number of People Employed in this Occupation in Sarnia Lambton 200

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Product Manufacturing	NAICS 3241	17.5%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	17.5%
Basic Chemical Manufacturing	NAICS 3251	15%
Architectural, Engineering and Related Services	NAICS 5413	12.5%
Building Equipment Contractors	NAICS 2382	7.5%
Non-residential Building Construction	NAICS 2362	5%
Pesticide, Fertilizer and Other Agricultural Chemical Manufacturing	NAICS 3253	5%
Other Chemical Product Manufacturing	NAICS 3259	5%
Electrical Equipment Manufacturing	NAICS 3353	5%
Petroleum Product Wholesaler-Distributors	NAICS 4121	5%
Agricultural Supplies Wholesaler-Distributors	NAICS 4183	5%
Management, Scientific and Technical Consulting Services	NAICS 5416	5%

% of Occupations in Sarnia Lambton's Employed Workforce 0.3%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	20	10.3%
25 to 44 years	55	28.2%
45 to 64 years	120	61.5%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$82,581

Number of People in Sarnia Lambton's Employed Workforce

190

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	125	62.5%
23	Construction	25	12.5%
54	Professional, scientific and technical services	25	12.5%

Job Loss/Gain Information

25%

This Occupation May Also Be Called:

- apprentice industrial instrument mechanic
- industrial instrument mechanic
- instrument technician
- industrial, instrumentation technician
- industrial, process control equipment mechanic

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. As more firms introduce automated production equipment, industrial instrument technicians and mechanics are needed to ensure these machines are well maintained. Manufacturing and communications and utilities industries are the main sources of jobs for this occupation. Industrial instrument technicians and mechanics are not as vulnerable to labour market fluctuations as compared to other manufacturing and plant workers. In an economic downturn, mechanics are still required to maintain expensive machinery and do major overhaul work.

People working in this occupation should expect to need intermittent retraining and professional development to keep up with rapid technological change, such as the use of computer-based control systems.

Employment Requirements

- Completion of secondary school is usually required.
- Completion of a four- or five-year apprenticeship program in industrial instrument repair
or
Completion of a two-year college program in industrial instrumentation technology and several years of work experience are usually required for trade certification.
- Industrial instrument mechanic trade certification is available, but voluntary, in Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Nunavut, the Northwest Territories and the Yukon.
- Interprovincial trade certification (Red Seal) is also available to qualified industrial instrument mechanics.

- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2243&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2243&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2243&sort=N>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2243&province=35&keyword=&action=final&display=job

Information Systems Analysts and Consultants

NOC 2171-A

Occupation Description

Information systems analysts and consultants conduct research, develop and implement information systems development plans, policies and procedures, and provide advice on a wide range of information systems issues. They are employed in information technology consulting firms and in information technology units throughout the private and public sectors, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 180

Number of People Employed in this Occupation in Sarnia Lambton 125

% of People Employed in Sarnia Lambton in this Occupation

Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	24%
Other Support Services	NAICS 5619	12%
Community Colleges and C.E.G.E.P.s	NAICS 6112	12%
Natural Gas Distribution	NAICS 2212	8%
Basic Chemical Manufacturing	NAICS 3251	8%
Electric Lighting Equipment Manufacturing	NAICS 3351	8%
Computer Systems Design and Related Services	NAICS 5415	8%
Business Support Services	NAICS 5614	8%
Waste Treatment and Disposal	NAICS 5622	8%
Hospitals	NAICS 6220	8%

% of Occupations in Sarnia Lambton's Employed Workforce 0.3%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	10	8.3%
25 to 44 years	65	54.2%
45 to 64 years	45	37.5%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$70,556

Number of People in Sarnia Lambton's Employed Workforce 180

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	60	48%
56	Administrative and Support, Waste Management and Remediation Services	25	20%
61	Educational Services	15	12%

Job Loss/Gain Information

-26.5%

This Occupation May Also Be Called:

- IT (information technology) consultant
- computer consultant
- computer systems analyst
- informatics consultant
- informatics security analyst
- information systems business analyst
- information systems quality assurance analyst
- management information systems (MIS) analyst
- systems auditor
- systems consultant
- systems security analyst

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. Openings will be created both through expansion and replacement, as workers leave the labour force or move into managerial positions. In an economic downturn, employment in the high-tech sector can fall below the forecasted rate. However, companies across all sectors will continue to invest in information technologies, but at a more measured pace.

As technology becomes more complex, employers will demand a more skilled and educated workforce. New graduates with combined degrees in information and communication technology (ICT) as well as in business studies will have the best employment opportunities. Employers are constantly seeking candidates with strong communication and project management skills with advanced degrees in computer science, computer engineering, information science or an MBA in information systems. Experience in business analysis is often a prerequisite. Consulting and freelance work are areas of growth within this occupation.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- A bachelor's degree in computer science, computer systems engineering, software engineering, business administration or a related discipline
or
Completion of a college program in computer science is usually required.
- Experience as a computer programmer is usually required.
- Certification or training provided by software vendors may be required by some employers.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2171&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2171&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2171&sort=D>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2171&province=35&keyword=&action=final&display=job

Inspectors in Public and Environmental Health and Occupational Health and Safety

NOC 2263-B

Occupation Description

Inspectors in this unit group evaluate and monitor health and safety hazards and develop strategies to control risks in the workplace. They inspect restaurants, public facilities, industrial establishments, municipal water systems and other workplaces to ensure compliance with government regulations regarding sanitation, pollution control, the handling and storage of hazardous substances and workplace safety. They are employed throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 170

Number of People Employed in this Occupation in Sarnia Lambton 190

% of People Employed in Sarnia Lambton in this Occupation

Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	13.2%
Local, Municipal and Regional Public Administration	NAICS 9130	10.5%
Management, Scientific and Technical Consulting Services	NAICS 5416	7.9%
Remediation and Other Waste Management Services	NAICS 5629	7.9%
Non-residential Building Construction	NAICS 2362	5.3%
Foundation, Structure, and Building Exterior Contractors	NAICS 2381	5.3%
Building Equipment Contractors	NAICS 2382	5.3%
Fruit and Vegetable Preserving and Specialty Food Manufacturing	NAICS 3114	5.3%
Basic Chemical Manufacturing	NAICS 3251	5.3%
Architectural, Engineering and Related Services	NAICS 5413	5.3%
Employment Services	NAICS 5613	5.3%
Out-Patient Care Centres	NAICS 6214	5.3%
Business, Professional, Labour and Other Membership Organizations	NAICS 8139	5.3%
Federal Protective Services	NAICS 9112	5.3%
Provincial and Territorial Public Administration	NAICS 9120	5.3%

% of Occupations in Sarnia Lambton's Employed Workforce 0.3%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	95	50%
45 to 64 years	95	50%
65 + years	0	0%

**Median Income from Persons in this Occupation
in Sarnia Lambton**

\$61,720

**Number of People in Sarnia Lambton's
Employed Workforce**

175

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	55	28.9%
91	Public Administration	40	21.1%
23	Construction	25	13.2%

Job Loss/Gain Information

28.9%

This Occupation May Also Be Called:

- environmental health officer
- hazardous waste inspector
- health and safety officer
- health standards inspector
- occupational health and safety officer
- pollution control inspector
- public health inspector
- restaurant inspector
- rodent control inspector
- supervisor
- public health inspectors
- water inspector

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Much job growth will result from a continued need to evaluate and monitor the health and safety hazards and the quality of the environment, and to develop strategies to control risks in the workplace. In addition to openings due to growth, job opportunities will be created each year from the need to replace workers who retire. The work in this field is moderately seasonal but not very sensitive to overall economic conditions.

The increase of industry self-regulation in environment and public health areas may impact professionals who work in these fields. Inspectors and officers in these fields may find increasing employment opportunities in private industry.

Employment Requirements

- A bachelor's degree or college diploma in a discipline such as food science, environmental studies, chemistry or health and safety is usually required.
- In some establishments, several years of related work experience and the completion of in-house training courses may substitute for formal education.
- Public health inspectors employed outside of Quebec require certification with the Canadian Institute of Public Health Inspectors.
- Occupational health and safety officers may require certification with the Association for Canadian Registered Safety Professionals.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2263&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2263&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2263&province=35&keyword=&action=final&display=job

Land Survey Technologists and Technicians**NOC 2254-B****Occupation Description**

Land survey technologists and technicians conduct or participate in surveys to determine the exact locations and relative positions of natural features and other structures on the earth's surface, underground and underwater. They are employed by all levels of government, architectural and engineering firms, and by private sector surveying establishments.

Total Number of Workers in Sarnia Lambton 30

Number of People Employed in this Occupation in Sarnia Lambton 25

% of People Employed in Sarnia Lambton in this Occupation

Architectural, Engineering and Related Services	NAICS 5413	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.05%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	40%
45 to 64 years	15	60%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 35

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	65	38.2%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- engineering survey technologist
- geodetic survey technologist
- geomatics technologist – surveying
- land survey technician
- legal survey technician
- topographic survey technician
- transit operator – surveying

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Many job openings will become available as older workers retire. Ever more, surveying is being included as part of civil engineering technology programs, allowing civil engineering technologists and technicians to do many of the tasks associated with surveying. However, career opportunities continue to grow in geospatial mapping, location-based services, navigation, remote sensing, natural resources management, energy, hydrography, urban and rural planning, environmental management, land and engineering surveying, marketing, satellite positioning, digital mapping, image analysis, and information management and transportation. Jobs for these workers are heavily concentrated among firms that provide business services to other businesses and to the government service sector.

The increasing use of computer-based technologies, such as mapping and satellite positioning systems, are transforming this occupation. Workers will need to develop appropriate skills and will need intermittent retraining and professional development to keep up with the new technologies. There is some mobility among the various fields of surveying such as legal surveys, engineering surveys, mining surveys and geophysical surveys.

Employment Requirements

- Completion of secondary school is usually required.
- Completion of a two- to three-year college program in geomatics or survey technology is usually required for survey technologists.
- Completion of a one- to two-year college program in geomatics or survey technology is usually required for survey technicians.
- Certification by provincial associations of technicians and technologists may be required by some employers.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2254&province=35&keyword=&action=final&display=union

- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2254&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2254&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2254&province=35&keyword=&action=final&display=job

Land Surveyors

NOC 2154-A

Occupation Description

Land surveyors plan, direct and conduct legal surveys to establish the location of real property boundaries, contours and other natural or human-made features, and prepare and maintain cross-sectional drawings, official plans, records and documents pertaining to these surveys. They are employed by federal, provincial and municipal governments, private sector land surveying establishments, real estate development, natural resource, engineering and construction firms, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Architectural, Engineering and Related Services	NAICS 5413	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$39,993

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

No information available at this time.

Job Loss/Gain Information -66.7%

This Occupation May Also Be Called:

- commissioned land surveyor
- land surveyor
- legal surveyor
- professional land surveyor
- property surveyor

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Employment may fluctuate from year to year with construction activity or with mapping needs for land and resource management.

This is a small occupational group and only a few opportunities are expected to result from employment growth and replacement needs due to retirements. This occupational group has been affected by technological advances in survey techniques. Both geographic information systems (GIS) and global positioning systems (GPS) have helped the land surveyor become more accurate and productive. Workers will need to develop appropriate skills and will need intermittent retraining and professional development to keep up with the new technologies. There is some mobility among the various fields of surveying such as legal surveys, engineering surveys, mining surveys and geophysical surveys.

Employment Requirements

- A bachelor's degree in geomatics engineering or survey engineering
or
A college diploma in survey science or geomatics technology with additional academic credits and successful completion of equivalent examinations set by a regional board of examiners for land surveyors is required.
- A one- to three-year articling period is required.
- Successful completion of professional land surveyor examinations is required.
- A federal or provincial land surveyor's licence is required.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2154&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2154&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2154&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2154&province=35&keyword=&action=final&display=job

Landscape and Horticultural Technicians and Specialists

NOC 2225-A

Occupation Description

This unit group includes those who survey and assess landscapes; draw sketches and build models of landscape designs; construct and maintain gardens, parks, golf courses and other landscaped environments; advise clients on issues related to horticulture; breed, cultivate and study plants; and treat injured and diseased trees and plants. They are employed by landscape designers and contractors, lawn service and tree care establishments, golf courses, nurseries and greenhouses, and municipal, provincial and national parks, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 105

Number of People Employed in this Occupation in Sarnia Lambton 90

% of People Employed in Sarnia Lambton in this Occupation

Services to Buildings and Dwellings	NAICS 5617	27.8%
Other Amusement and Recreation Industries	NAICS 7139	27.8%
Crop Production	NAICS 1110	22.2%
Local, Municipal and Regional Public Administration	NAICS 9130	16.7%
Lawn and Garden Equipment and Supplies Stores	NAICS 4442	11.1%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	25	35.7%
25 to 44 years	30	42.9%
45 to 64 years	15	21.4%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$35,398

Number of People in Sarnia Lambton's Employed Workforce 105

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture, Forestry, Fishing and Hunting	25	27.8%
56	Administrative and Support, Waste Management and Remediation Services	25	27.8%
71	Arts, Entertainment and Recreation	25	27.8%

Job Loss/Gain Information

27.8%

This Occupation May Also Be Called:

- arborist
- golf course superintendent
- greenskeeper
- horticultural technician
- horticulture specialist
- horticulturist
- hydroponics technician
- landscape architectural technician
- landscape designer
- landscape gardener
- landscape technician
- landscaper
- lawn care specialist
- tree service technician

Employment Prospects

No information available at this time.

Employment Requirements

- Completion of a university or college program in agronomy, arboriculture, horticulture, landscaping, landscape design or landscape technology is usually required.
- Experience as a landscape and grounds maintenance labourer may be required for golf course superintendents, landscape gardeners and landscapers
- An apprenticeship program is available for horticulturists, arboriculturists and landscape gardeners.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2225&province=35&keyword=&action=final&display=union

- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2225&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2225&sort=D>
- ❖ **Work Habits:**
[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)
- ❖ **Local Employers:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2225&province=35&keyword=&action=final&display=job

Mathematicians, Statisticians and Actuaries**NOC 2161-A****Occupation Description**

Mathematicians and statisticians research mathematical or statistical theories, and develop and apply mathematical or statistical techniques, for solving problems in such fields as science, engineering, business and social science. Actuaries apply mathematics, statistics, probability and risk theory to assess potential financial impacts of future events. Mathematicians, statisticians and actuaries are employed by universities, governments, bank and trust companies, insurance companies, pension benefit consulting firms, professional associations and science and engineering consulting firms.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Amusement, Gambling and Recreation Industries	NAICS 713	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.01%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
71	Arts, Entertainment and Recreation	10	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 100%

This Occupation May Also Be Called:

- actuary
- biostatistician
- consulting actuary
- demographer
- insurance actuary
- mathematician
- statistical analyst
- statistician

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Most job openings are expected to occur as older workers retire especially in the post-secondary education sector. However, job competition will be keen as this is a relatively small occupational group with few new jobs expected.

An increasing percentage of mathematics graduates are now being employed in software and other computer systems jobs. Actuaries are moving into new fields such as compensation consulting, health care and financial planning. Positions also exist in colleges and universities for those with a Ph.D. in mathematics or statistics, with knowledge of computer systems. Operations research and marketing are also expanding areas of employment for this specialty. Those individuals with a Master's or Ph.D. in mathematics as well as a strong background in a related discipline such as computer science and who apply mathematical theory to real-world problems will have the best job prospects.

Employment Requirements

- Mathematicians and statisticians usually require a graduate degree in mathematics or statistics.
- Actuaries usually require post-secondary education in actuarial science, mathematics, statistics, economics, commerce or business administration.
- Actuaries are conferred fellowships through the Canadian Institute of Actuaries upon successful completion of professional examinations
and
Three years of work experience in the actuarial field as an actuarial assistant or in a related position.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2161&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2161&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2161&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2161&province=35&keyword=&action=final&display=job

Mechanical Engineering Technologists and Technicians

NOC 2232-B

Occupation Description

Mechanical engineering technologists and technicians provide technical support and services or may work independently in mechanical engineering fields such as the design, development, maintenance and testing of machines, components, tools, heating and ventilating systems, power generation and power conversion plants, manufacturing plants and equipment. They are employed by consulting engineering, manufacturing and processing companies, institutions and government departments.

Total Number of Workers in Sarnia Lambton 105

Number of People Employed in this Occupation in Sarnia Lambton 90

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	27.8%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	16.7%
Electric Power Generation, Transmission and Distribution	NAICS 2211	11.1%
Boiler, Tank and Shipping Container Manufacturing	NAICS 3324	11.1%
Coating, Engraving, Heat Treating and Allied Activities	NAICS 3328	11.1%
Scientific Research and Development Services	NAICS 5417	11.1%
Provincial and Territorial Public Administration	NAICS 9120	5.3%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	25	27.8%
25 to 44 years	25	27.8%
45 to 64 years	40	44.4%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$89,442

Number of People in Sarnia Lambton's Employed Workforce 100

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	35	38.9%
54	Professional, scientific and technical services	35	38.9%
22	Utilities	15	16.7%

Job Loss/Gain Information

50%

This Occupation May Also Be Called:

- HVAC (heating, ventilation and air conditioning) technologist
- aeronautical technologist
- heating designer
- machine designer
- marine engineering technologist
- mechanical engineering technician
- mechanical engineering technologist
- mechanical technologist
- mould designer
- thermal station technician
- tool and die designer
- tool designer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Slower growth in manufacturing activities should moderate demand for mechanical engineering technologists and technicians. In an economic downturn, the manufacturing sector experiences downsizing, however, technologists and technicians are more dispersed across occupational categories and could look for work in fields other than engineering or technology such as general science. The growing use of advanced technologies, such as computer-aided design and drafting and computer simulation, will continue to moderate employment growth.

People in these occupations should plan for continuous retraining and professional development to keep up with the rapidly changing technology in their field.

Employment Requirements

- Completion of a two- or three-year college program in mechanical engineering technology is usually required for mechanical engineering technologists.
- Completion of a one- or two-year college program in mechanical engineering technology is usually required for mechanical engineering technicians.
- Certification in mechanical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2232&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2232&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2232&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2232&province=35&keyword=&action=final&display=job

Mechanical Engineers

NOC 2132-A

Occupation Description

Mechanical engineers research, design and develop machinery and systems for heating, ventilating and air conditioning, power generation, transportation, processing and manufacturing. They also perform duties related to the evaluation, installation, operation and maintenance of mechanical systems. Mechanical engineers are employed by consulting firms, by power-generating utilities and in a wide range of manufacturing, processing and transportation industries, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 230

Number of People Employed in this Occupation in Sarnia Lambton 220

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	47.7%
Electric Power Generation, Transmission and Distribution	NAICS 2211	6.8%
Natural Gas Distribution	NAICS 2212	6.8%
Management, Scientific and Technical Consulting Services	NAICS 5416	6.8%

% of Occupations in Sarnia Lambton's Employed Workforce 0.4%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	125	58.1%
45 to 64 years	90	41.9%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$90,953

Number of People in Sarnia Lambton's Employed Workforce 230

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	120	52.2%
31-33	Manufacturing	45	19.5%
22	Utilities	35	15.2%

Job Loss/Gain Information

40.9%

This Occupation May Also Be Called:

- acoustics engineer
- automotive engineer
- design engineer – mechanical
- energy conservation engineer
- engineer, power generation
- fluid mechanics engineer
- heating, ventilation and air conditioning (HVAC) engineer
- mechanical engineer
- mechanical maintenance engineer
- nuclear engineer
- piping engineer
- refrigeration engineer
- robotics engineer
- thermal design engineer
- tool engineer

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Employment of mechanical engineers is concentrated in manufacturing, and as such moves in tandem with the general level of economic activity of the sector. Emerging technologies in information technology, biotechnology, and nanotechnology may generate new job opportunities for mechanical engineers.

Mechanical engineers may find work in the aeronautics industry because of the need to maintain and replace the ageing fleet of aircraft. In addition the growing use of electronics in machinery and process control will lead to increased overlap between mechanical and electrical and electronics engineering. Many mechanical engineers will need skills in this area. The increased emphasis on quality control in production will require individuals with up-to-date skills and with knowledge of quality control processes to meet international quality standards. Employers will be seeking individuals with general and specific computer skills, as well as, communication and teamwork skills.

Employment Requirements

- A bachelor's degree in mechanical engineering or in a related engineering discipline is required.
- A master's degree or doctorate in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2132&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2132&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2132&sort=N>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2132&province=35&keyword=&action=final&display=job

Metallurgical and Materials Engineers

NOC 2142-A

Occupation Description

Metallurgical and materials engineers conduct studies of the properties and characteristics of metals and other non-metallic materials and plan, design and develop machinery and processes to concentrate, extract, refine and process metals, alloys and other materials such as ceramics, semiconductors and composite materials. Metallurgical and materials engineers are employed in consulting engineering firms, mining, metal processing and manufacturing companies, and in government, research and educational institutions.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	10	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 10

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

No information available at this time.

Job Loss/Gain Information 0%

This Occupation May Also Be Called:

- ceramics engineer
- corrosion engineer
- electrometallurgical engineer
- foundry engineer
- hydrometallurgical engineer
- materials engineer
- metallurgical engineer
- physical metallurgical engineer
- pyrometallurgical engineer
- welding engineer

Employment Prospects

No information available at this time.

Employment Requirements

- A bachelor's degree in metallurgical, materials, ceramic or chemical engineering or in a related engineering discipline is required.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2142&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2142&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2142&sort=D>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2142&province=35&keyword=&action=final&display=job

Non-Destructive Testers and Inspectors**NOC 2261-B****Occupation Description**

Non-destructive testers and inspectors operate radiographic, ultrasonic, liquid penetrant, magnetic particle, eddy current and similar testing equipment to detect discontinuities in objects of various compositions and materials. They are employed by quality control, maintenance and safety departments of manufacturing, processing, transportation, energy and other companies and by private industrial inspection establishments.

Total Number of Workers in Sarnia Lambton 70

Number of People Employed in this Occupation in Sarnia Lambton 75

% of People Employed in Sarnia Lambton in this Occupation

Architectural, engineering and related services	NAICS 5413	46.7%
Electric Power Generation, Transmission and Distribution	NAICS 2211	13.3%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	13.3%
Gasoline Stations	NAICS 4471	13.3%
Employment Services	NAICS 5613	13.3%

% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	15	20%
25 to 44 years	325	46.7%
45 to 64 years	25	33.3%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$89,832

Number of People in Sarnia Lambton's Employed Workforce 70

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
54	Professional, scientific and technical services	35	46.7%
22	Utilities	10	13.3%
23	Construction	10	13.3%

Job Loss/Gain Information

73.3%

This Occupation May Also Be Called:

- NDT (non-destructive testing) maintenance technician
- acoustic emission technician
- aircraft non-destructive inspection technician
- eddy current technician
- industrial radiographer
- infrared thermographer
- liquid penetrant inspector
- magnetic particle inspector
- non-destructive inspector
- non-destructive tester
- pressure vessel tester
- radiographic technician – non-destructive testing
- ultrasonic inspector
- visual inspector – welding
- weld inspector

Employment Prospects

No information available at this time.

Employment Requirements

- Completion of secondary school is required
- Completion of two years of an approved post-secondary science or engineering program may be required.
- Additional classroom and on-the-job training is required for certification in non-destructive testing.
- Non-destructive testing certification by Natural Resources Canada is available in three levels and is usually required by employers.
- Industrial radiographers using a radioactive isotope must pass an examination to be recognized as a certified exposure device operator by the Canadian Nuclear Safety Commission
- Welding inspector certification by the Canadian Welding Bureau is available in three levels and may be required by employers
- Boiler and pressure vessel, process pipeline and above-ground storage tank inspector certification is available from the American Petroleum Institute

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2261&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2261&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2261&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2261&province=35&keyword=&action=final&display=job

Nursery and Greenhouse Operators and Managers

NOC 8254-B

Occupation Description

Nursery and greenhouse operators and managers plan, organize, direct and control the activities of nursery and greenhouse staff who grow and market trees, shrubs, flowers and plants.

Total Number of Workers in Sarnia Lambton 20

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Farms	NAICS 1110	50%
Lawn and Garden Equipment and Supplies Stores	NAICS 4442	50%

% of Occupations in Sarnia Lambton's Employed Workforce 0.02%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

No information available at this time.

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 15

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
11	Agriculture	10	100%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 0%

This Occupation May Also Be Called:

- Christmas tree farm operator
- flower grower
- greenhouse farmer
- greenhouse manager
- greenhouse operator
- nursery farmer
- nursery manager
- nursery operator
- plant grower – nursery

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. Despite the addition of more greenhouse acres under operation, this expansion is largely within existing operations and has not translated into significantly more managers/operators. Higher energy costs in the future may constrain growth. The sector is also affected by the level of residential construction activity which is expected to slow over the forecast period. Employee turnover resulting from seasonal employment trends will however, generate on-going job opportunities as many part-time and foreign workers are attracted to this work.

Greenhouses and nurseries are becoming large scale, automated operations with the adoption of biotechnology and computerized systems applied to farming. Technology will replace manual labour and result in fewer workers required to do the same work.

Employment Requirements

- Completion of a college program in horticulture is usually required.
- Experience as a nursery or greenhouse supervisor is required.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8254&province=35&titleKeyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8254&province=35&titleKeyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=8254&sort=N>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8254&province=35&titleKeyword=&action=final&display=job

Petroleum Engineers

NOC 2145-A

Occupation Description

Petroleum engineers conduct studies for the exploration, development and extraction of oil and gas deposits; and plan, design, develop and supervise projects for the drilling, completion, testing and re-working of oil and gas wells. They are employed by petroleum producing companies, consulting companies, well logging or testing companies, in government, and research and educational institutions.

Total Number of Workers in Sarnia Lambton 85

Number of People Employed in this Occupation in Sarnia Lambton 90

% of People Employed in Sarnia Lambton in this Occupation

Petroleum and Coal Product Manufacturing	NAICS 3241	50%
Scientific Research and Development Services	NAICS 5417	16.7%
Support Activities for Mining and Oil and Gas Extraction	NAICS 2131	11.1%
Petroleum Product Wholesaler-Distributors	NAICS 4121	11.1%

% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	20%
25 to 44 years	45	52.9%
45 to 64 years	40	47.1%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$105,972

Number of People in Sarnia Lambton's Employed Workforce 190

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	50	55.6%
21	Mining, Quarrying, and Oil and Gas Extraction	20	22.2%
54	Professional, scientific and technical services	10	11.1%

Job Loss/Gain Information

61.1%

This Occupation May Also Be Called:

- drilling engineer
- oil and gas, petroleum engineer
- petroleum engineer
- completion, production engineer
- oil and gas, reservoir engineer
- petroleum, subsea engineer

Employment Prospects

No information available at this time.

Employment Requirements

- A bachelor's degree in petroleum engineering or in a related engineering discipline is required.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2145&sort=D>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=job

Pharmacists**NOC 3131-A****Occupation Description**

Community pharmacists and hospital pharmacists compound and dispense prescribed pharmaceuticals and provide consultative services to both clients and health care providers. They are employed in community and hospital pharmacies, or they may be self-employed. Industrial pharmacists participate in the research, development, promotion and manufacture of pharmaceutical products. They are employed in pharmaceutical companies and government departments and agencies.

Total Number of Workers in Sarnia Lambton 65

Number of People Employed in this Occupation in Sarnia Lambton 50

% of People Employed in Sarnia Lambton in this Occupation

Health and Personal Care Stores	NAICS 4461	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.1%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	35	100%
45 to 64 years	0	0%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$91,101

Number of People in Sarnia Lambton's Employed Workforce 60

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
31-33	Manufacturing	50	55.6%
21	Mining, Quarrying, and Oil and Gas Extraction	20	22.2%
54	Professional, scientific and technical services	10	11.1%

Job Loss/Gain Information 61.1%

This Occupation May Also Be Called:

- drilling engineer
- oil and gas, petroleum engineer
- petroleum engineer
- completion, production engineer
- oil and gas, reservoir engineer
- petroleum, subsea engineer

Employment Prospects

No information available at this time.

Employment Requirements

- A bachelor's degree in petroleum engineering or in a related engineering discipline is required.
- A master's or doctoral degree in a related engineering discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination.
- Supervisory and senior positions in this unit group require experience.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2145&sort=D>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2145&province=35&keyword=&action=final&display=job

Silviculture and Forestry Workers

NOC 8422-C

Occupation Description

Silviculture and forestry workers perform a variety of duties related to reforestation and to the management, improvement and conservation of forest lands. They are employed by logging companies, contractors and government services.

Total Number of Workers in Sarnia Lambton 10

Number of People Employed in this Occupation in Sarnia Lambton

No information available at this time.

% of People Employed in Sarnia Lambton in this Occupation

No information available at this time.

% of Occupations in Sarnia Lambton's Employed Workforce

No information available at this time.

Age Profile of People Who Work in Sarnia Lambton in this Occupation

No information available at this time.

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce

No information available at this time.

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

No information available at this time.

Job Loss/Gain Information

No information available at this time.

This Occupation May Also Be Called:

- clearing saw operator
- forest firefighter
- forestry crew worker
- forestry worker
- pieceworker – silviculture
- scarification equipment operator
- silviculture worker
- spacing saw operator
- thinning saw operator

Employment Prospects

No information available at this time.

Employment Requirements

- Completion of secondary school may be required.
- Completion of a college or other specialized program for silviculture workers or forestry crew workers may be required.
- Formal training in power saw operation and maintenance and several months of on-the-job training are usually provided. Experience as a logging and forestry labourer may be required.
- A chemicals application licence is required.
- Workplace hazardous materials information system (WHMIS) and transportation of dangerous goods (TDG) certificates may be required.
- A silvicultural worker's licence may be required.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8422&province=35&titleKeyword=Forestry Worker&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8422&province=35&titleKeyword=Forestry Worker&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=8422&sort=N>

❖ Work Habits:

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits>

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=8422&province=35&titleKeyword=Forestry Worker&action=final&display=job

Software Engineers and Designers

NOC 2173-A

Occupation Description

Software engineers and designers research, design, evaluate, integrate and maintain software applications, technical environments, operating systems, embedded software, information warehouses and telecommunications software. They are employed in information technology consulting firms, information technology research and development firms, and information technology units throughout the private and public sectors, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 50

Number of People Employed in this Occupation in Sarnia Lambton 25

% of People Employed in Sarnia Lambton in this Occupation

Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	40%
Other Pipeline Transportation	NAICS 4869	40%
Computer Systems Design and Related Services	NAICS 5415	40%
Hospitals	NAICS 6220	40%

% of Occupations in Sarnia Lambton's Employed Workforce 0.07%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	10	50%
45 to 64 years	10	50%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$114,698

Number of People in Sarnia Lambton's Employed Workforce 45

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
48-49	Transportation and Warehousing	10	40%
54	Professional, scientific and technical services	10	40%
-	-	-	-

Job Loss/Gain Information

100%

This Occupation May Also Be Called:

- application architect
- computer software engineer
- embedded software engineer
- software architect
- software design engineer
- software design verification engineer
- software designer
- software engineer
- software testing engineer
- systems integration engineer – software
- technical architect – software
- telecommunications software engineer

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. In an economic downturn, employment in this sector could fall below the forecasted rate. However, companies will continue to require these professionals but at a much more measured pace. Software engineers are employed in high level design of software applications and operating systems. Employers needs are highly specific and can be obtained through industry-based internships.

Software development skills in demand include Java, Visual C++, Visual Basic, SQL Server, Oracle DB and MS Access. To be successful in this field, a significant amount of time is required to keep up-to-date on new technologies and their applications. Consulting and freelance work are areas of growth within this occupation.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- A bachelor's degree, usually in computer science, computer systems engineering, software engineering or mathematics
or
Completion of a college program in computer science is usually required.
- A master's or doctoral degree in a related discipline may be required.
- Licensing by a provincial or territorial association of professional engineers is required to approve engineering drawings and reports and to practise as a Professional Engineer (P.Eng.).
- Engineers are eligible for registration following graduation from an accredited educational program, three or four years of supervised work experience in engineering and passing a professional practice examination.
- Experience as a computer programmer is usually required.

Working Conditions

No information available at this time.

Links

❖ **Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2173&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2173&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2173&province=35&keyword=&action=final&display=job

Systems Testing Technicians

NOC 2283-B

Occupation Description

Systems testing technicians execute test plans to evaluate the performance of software applications and information and telecommunications systems. They are employed in information technology units throughout the private and public sectors.

Total Number of Workers in Sarnia Lambton 20

Number of People Employed in this Occupation in Sarnia Lambton 15

% of People Employed in Sarnia Lambton in this Occupation

Oil and Gas Extraction	NAICS 2111	66.7%
Basic Chemical Manufacturing	NAICS 3251	66.7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.03%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	15	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 20

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
21	Mining and Oil and Gas Extraction	10	66.7%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 33.3%

This Occupation May Also Be Called:

- application tester
- application testing technician
- software test co-ordinator
- software tester
- systems tester
- systems testing technician
- user acceptance tester

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. Due to global technological advancement, companies continue implementing technology even during tough economic times, maintaining the need for systems testing. Although application/system testing is a crucial part in the development and marketing of new technology, it can often be done out of province, even out of country. Since many of these jobs could be outsourced to areas where prevailing wages are lower, demand for these workers will be moderated. System testing technician is often an entry level position and is often the starting point for many new IT graduates. The number of new graduates should meet industry needs.

Candidates with knowledge of various operating systems such as Windows XP and Vista, Linux, Unix, and Apple OSx, and experience with networking and development tools/languages will have the best prospects.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers needs with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- Completion of a college program in computer science, computer programming or network administration is usually required.
- College or other courses in computer programming or network administration are usually required.
- Certification or training provided by software vendors may be required by some employers.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2283&province=35&keyword=&action=final&display=union

❖ **Local Education & Training Programs:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2283&province=35&keyword=&action=final&display=training

❖ **Essential Skills**

No information available at this time.

❖ **Work Habits:**

No information available at this time.

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2283&province=35&keyword=&action=final&display=job

Urban and Land Use Planners**NOC 2153-A****Occupation Description**

Urban and land use planners develop plans and recommend policies for managing land use, physical facilities and associated services for urban and rural areas and remote regions. They are employed by all levels of government, land developers, engineering and other consulting companies or may work as private consultants.

Total Number of Workers in Sarnia Lambton 25

Number of People Employed in this Occupation in Sarnia Lambton 25

% of People Employed in Sarnia Lambton in this Occupation

Municipal and Regional Public Administration	NAICS 9130	80%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.04%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	15	60%
45 to 64 years	10	40%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$53,968

Number of People in Sarnia Lambton's Employed Workforce 25

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
91	Public Administration	20	80%
-	-	-	-
-	-	-	-

Job Loss/Gain Information 40%

This Occupation May Also Be Called:

- city planner
- community and urban planner
- environmental planner
- land use planner
- long-range planner
- municipal planner
- park planner
- planner
- planning analyst
- recreation planner
- regional planner
- urban planner

Employment Prospects

Over the next five years: Average

Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013. Two out of every three urban and land use planners work in the public sector. However, there has been some mobility from the public sector to private firms in the development industry.

Increasingly, urban planners work with computerized mapping systems, which require continuous skill upgrading.

Employment Requirements

- A bachelor's degree in urban and regional planning, geography, architecture, engineering or a related discipline is required.
- A master's degree in one of these disciplines may be required.
- Membership in the Canadian Institute of Planners is usually required.
- Membership in a provincial planning institute may be required in some provinces.

Working Conditions

No information available at this time.

Links**❖ Professional Associations:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2153&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2153&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2153&sort=D>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2153&province=35&keyword=&action=final&display=job

User Support Technicians

NOC 2282-B

Occupation Description

Technicians in this group provide first-line technical support to computer users experiencing difficulties with computer hardware and with computer applications and communications software. They are employed by computer hardware manufacturers and retailers, software developers, in call centres and in information technology units throughout the private and public sectors. Technicians in this group are also employed by independent technical support companies or they may be self-employed.

Total Number of Workers in Sarnia Lambton 160

Number of People Employed in this Occupation in Sarnia Lambton 150

% of People Employed in Sarnia Lambton in this Occupation

Specialized Design Services	NAICS 5414	26.7%
Resin, Synthetic Rubber, and Artificial and Synthetic Fibres and Filaments Manufacturing	NAICS 3252	13.3%
Hospitals	NAICS 6220	10%
Oil and Gas Extraction	NAICS 2111	6.7%
Petroleum and Coal Products Manufacturing	NAICS 3241	6.7%
Construction, Forestry, Mining, and Industrial Machinery, Equipment and Supplies Wholesaler-Distributors	NAICS 4172	6.7%
Electronics and Appliance Stores	NAICS 4431	6.7%
Freight Transportation Arrangement	NAICS 4885	6.7%
Computer Systems Design and Related Services	NAICS 5415	6.7%
Investigation and Security Services	NAICS 5616	6.7%

% of Occupations in Sarnia Lambton's Employed Workforce 0.2%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	30	20%
25 to 44 years	80	53.3%
45 to 64 years	40	26.7%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton \$58,333

Number of People in Sarnia Lambton's Employed Workforce 155

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
56	Administrative and Support, Waste Management and Remediation Services	55	36.7%
31-33	Manufacturing	30	20%
41	Wholesale Trade	25	16.7%

Job Loss/Gain Information

46.7%

This Occupation May Also Be Called:

- call centre agent – technical support
- client support representative – systems
- computer help desk representative – systems
- computer help desk supervisor
- hardware installation technician
- hardware technical support analyst
- help desk technician
- software installation technician
- software technical support analyst
- systems support representative
- technical support analyst – systems
- technical support supervisor
- user support technician

Employment Prospects

Over the next five years: Good

Opportunities for employment in this occupation are expected to be good over the period from 2009 to 2013. Due to global technological advancement, companies will continue to implement new technologies, maintaining the need for this occupation. Furthermore, complex technology often results in a growing need for user support. Although the demand for user support is expected to show above average growth through 2013, the provider of user support can often reside out of province, even out of country. Since many of these jobs could be outsourced to areas where prevailing wages are lower, demand for these workers will be moderated. User support is often an entry level position and is often the starting point for many new IT graduates.

Candidates with strong problem solving, analytical, interpersonal and communication skills should have the best prospects.

According to a recent study by the Information and Communications Technology Council (ICTC), employers are most in need of workers with a combination of technical, business and interpersonal skills, including:

- core technical skills
- experience with specific applications and platforms
- experience with specific business processes to which ICT is a solution
- communications skills
- team work skills

Employment Requirements

- Completion of a college program in computer science, computer programming or network administration is usually required
- College or other courses in computer programming or network administration are usually required.
- Certification or training provided by software vendors may be required by some employers.

Working Conditions

No information available at this time.

Links

❖ Professional Associations:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2282&province=35&keyword=&action=final&display=union

❖ Local Education & Training Programs:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2282&province=35&keyword=&action=final&display=training

❖ Essential Skills

<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2282&sort=N>

❖ Work Habits:

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ Local Employers:

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2282&province=35&keyword=&action=final&display=job

Web Designers and Developers

NOC 2175-A

Occupation Description

Web designers and developers research, design, develop and produce Internet and Intranet sites. They are employed in computer software development firms, information technology consulting firms, information technology units throughout the private and public sectors, or they may be self-employed.

Total Number of Workers in Sarnia Lambton 20

Number of People Employed in this Occupation in Sarnia Lambton 10

% of People Employed in Sarnia Lambton in this Occupation

Computer Systems Design and Related Services	NAICS 5415	100%
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% of Occupations in Sarnia Lambton's Employed Workforce 0.03%

Age Profile of People Who Work in Sarnia Lambton in this Occupation

Years	#	%
15 to 24 years	0	0%
25 to 44 years	0	0%
45 to 64 years	10	100%
65 + years	0	0%

Median Income from Persons in this Occupation in Sarnia Lambton

No information available at this time.

Number of People in Sarnia Lambton's Employed Workforce 20

Top Three Industrial Sectors Based on Full Time Employment in Sarnia Lambton

2 Digit NAICS	Sector	# of People Employed	% of People Employed
44-45	Retail Trade	10	100%
54	Professional, scientific and technical services	10	100%
-	-	-	-

Job Loss/Gain Information -60%

This Occupation May Also Be Called:

- Internet site designer
- Internet site developer
- Intranet site designer
- Web designer
- Web developer
- Web manager
- Web site developer
- Webmaster
- e-business Web site developer
- e-commerce Web site developer

Employment Prospects

Over the next five years: Limited

Opportunities for employment in this occupation are expected to be limited over the period from 2009 to 2013. The World Wide Web will continue to gain acceptance by companies and consumers as an effective means of managing information and business between companies (e-business) and customers (e-commerce). At the same time the technology is maturing and becoming more standardized allowing companies to manage their websites more efficiently. Impacted by a prolonged economic slowdown, employers will defer web upgrades which will adversely affect employment in this occupation.

Web development skills currently in demand include Windows Server, Java, XML and .Net. To be successful in this field, a significant amount of time is required to keep up-to-date on new technologies and their applications. Consulting and freelance work are areas of growth within this occupation. Candidates with strong communication and project management skills will have the best prospects.

Employment Requirements

- A bachelor's degree, usually in computer science, communications or business
or
Completion of a college program in computer science, graphic arts, Web design or business is required.
- Experience as a computer programmer or graphic designer is usually required.

Working Conditions

No information available at this time.

Links

- ❖ **Professional Associations:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2175&province=35&keyword=&action=final&display=union
- ❖ **Local Education & Training Programs:**
http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2175&province=35&keyword=&action=final&display=training
- ❖ **Essential Skills**
<http://skills.edu.gov.on.ca/OSPWeb/jsp/en/nocdetails.jsp?key=2175&sort=D>

❖ **Work Habits:**

[http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP Skills and Work Habits](http://skills.edu.gov.on.ca/OSPWeb/jsp/en/OSPskillsandworkhabits.jsp?announcer=OSP%20Skills%20and%20Work%20Habits)

❖ **Local Employers:**

http://www.workingincanada.gc.ca/report-eng.do?area=27233&lang=en_CA&noc=2175&province=35&keyword=&action=final&display=job

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SARNIA LAMBTON WORKFORCE DEVELOPMENT BOARD
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