

Key Research Findings

This analysis was based on the pre-determined criteria and measures listed below:

| Section | Description | Measures |
|-----------------------------|--|---|
| Student Demand | <p>Includes an assessment of OCAS (2007 - 2011) enrolment data at other colleges in terms of mean growth rate with a specific focus on Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham)</p> <p>Trends in certificate, diploma, degree, apprenticeship and continuing education (where available).</p> <p>Click Below to Access Full Source Document: Fall Enrollment Trend</p> | <ul style="list-style-type: none"> ● Strong = Fleming enrolment growth is outpacing system and is equal to or greater than 3% ● Moderate = Fleming enrolment growth is equivalent to system demand and is between 1.0 to 2.9% ● Weak = Fleming enrolment growth is less than the system demand and is less than 1% |
| Labour Market | <p>Includes projected employment rate growth based on a consolidation of various Ontario, Canadian, and US sources including HRSDC, Sector Council Reports US Bureau of Labour Statistics, and the MTCU Employment Profile.</p> | <ul style="list-style-type: none"> ● Strong = Between 5-6 positive labour market indicators ● Moderate = Between 3-5 positive labour market indicators ● Weak = Between 1-2 or no positive labour market indicators |
| Competitive Analysis | <p>Includes the number of actual colleges offering the program as well as the ratio of applications to acceptances at Fleming compared to other colleges and specific comment about Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham)</p> <p>Click Below to Access Full Source Document: Fall Conversion Report</p> | <ul style="list-style-type: none"> ● Strong = Fleming conversion ratio is greater than 2 below the system ● Moderate = Fleming conversion ratio is 1 above, below or equal to the system ● Weak = Fleming conversion ratio is greater than 2 above than the system |
| Financial Analysis | <p>Includes a review of Contribution to Overhead (CTO) for existing programs (2010-11)</p> <p>Click Below to Access Full Source Document: Costing Analysis</p> | <ul style="list-style-type: none"> ● Strong = CTO is greater than 35% ● Moderate = CTO is between 30 - 34% ● Weak = CTO is between 20 – 30% <p>No Contribution = 19% or less</p> |

Key Research Findings

| | | |
|-----------------------------------|--|--|
| Key Performance Indicators | <p>Includes KPI trends from the Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012.</p> <p>Click Below to Access Full Source Document: Key Performance Indicators</p> | <ul style="list-style-type: none">● Strong = Above system average in 6-7 indicators● Moderate = Above system average in 3-5 indicators● Weak = Above system average in 0-2 indicators. |
| Resource Analysis | <p>Requires school level assessment regarding space, technology, capital equipment and human resources. Recommendations from recent Program Review Reports included here</p> | |

Key Research Findings

Biotechnology Technologist - Forensics (61304)

Student Demand¹

- **WEAK**

The following information consists of OCAS yearly student fall registration data as well as a mean growth rate and average student registration for each program under these categories:

Diploma

- There are currently 5 colleges offering this diploma program
- Canadore has the highest mean growth rate (**90%**) and Loyalist has the lowest (**-2%**)
- Mohawk has the highest average registration of **96 students** and Canadore has the lowest of **4 students**

Advanced Diploma

- Currently, 7 colleges offer this advanced diploma program, including Durham and Seneca which are two of Fleming's main competitors
- Fleming has a **-6%** mean growth rate, which is worse than the system's mean growth rate (**-3%**)
- Fleming has the second highest average registration of **75 students**, next to Seneca with **89 students**; Canadore has the lowest average with **12 students**
- Algonquin has the best mean growth rate (**17%**) and Centennial has the lowest (**-17%**)

Graduate Certificate

- Centennial and Seneca are the only two colleges to offer a graduate certificate
- Centennial has the highest mean growth rate (**43%**) however has the lowest average registration of **7 students**
- Seneca has a low mean growth rate (**7%**) but has a higher average registration of **14 students**

Degree

- Fanshawe and La Cite are the only two schools to offer a degree program
- Fanshawe has the highest mean growth rate (**15%**) and La Cite has the lowest (**4%**)
- Both schools have approximately the same average registration

¹ Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011. Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset Prepared by Fleming Data Research (07-2012)

Key Research Findings

Diploma

| Program: 51304 - BIOTECHNOLOGY TECHNICIAN | | | | | | | | | | | | | | |
|---|----------------------------|-----|-----|----------------------------|-----|----|----------------------------|-----|-----|----------------------------|-----|-----|----------------------------|------------------------------|
| | 2007 2008 % Change (07-08) | | | 2008 2009 % Change (08-09) | | | 2009 2010 % Change (09-10) | | | 2010 2011 % Change (10-11) | | | % Mean Growth Rate (07-11) | 5 Year Average Reg. Students |
| CANADORE | 1 | 3 | 200 | 3 | 5 | 67 | 5 | 3 | -40 | 3 | 7 | 133 | 90 | 4 |
| CENTENNIAL | 21 | 21 | 0 | 21 | 21 | 0 | 21 | 13 | -38 | 13 | 22 | 69 | 8 | 20 |
| CONESTOGA | 31 | 49 | 58 | 49 | 49 | 0 | 49 | 51 | 4 | 51 | 58 | 14 | 19 | 48 |
| LOYALIST | 24 | | | 28 | | | 28 | 28 | 0 | 28 | 27 | -4 | -2 | 27 |
| MOHAWK | 92 | 95 | 3 | 95 | 106 | 12 | 106 | 87 | -18 | 87 | 100 | 15 | 3 | 96 |
| Total | 169 | 168 | -1 | 168 | 209 | 24 | 209 | 182 | -13 | 182 | 214 | 18 | 7 | 188 |

Advanced Diploma

| Program: 61304 - BIOTECHNOLOGY TECHNOLOGIST | | | | | | | | | | | | | | |
|---|----------------------------|-----|-----|----------------------------|-----|-----|----------------------------|-----|-----|----------------------------|-----|-----|----------------------------|------------------------------|
| | 2007 2008 % Change (07-08) | | | 2008 2009 % Change (08-09) | | | 2009 2010 % Change (09-10) | | | 2010 2011 % Change (10-11) | | | % Mean Growth Rate (07-11) | 5 Year Average Reg. Students |
| ALGONQUIN | 41 | 71 | 73 | 71 | 66 | -7 | 66 | 66 | 0 | 66 | 66 | 0 | 17 | 62 |
| CANADORE | 14 | 12 | -14 | 12 | 16 | 33 | 16 | 10 | -38 | 10 | 7 | -30 | -12 | 12 |
| CENTENNIAL | 70 | 45 | -36 | 45 | 57 | 27 | 57 | 41 | -28 | 41 | 29 | -29 | -17 | 48 |
| DURHAM | 30 | 31 | 3 | 31 | 37 | 19 | 37 | 40 | 8 | 40 | 40 | 0 | 8 | 36 |
| FLEMING | 90 | 76 | -16 | 76 | 65 | -14 | 65 | 82 | 26 | 82 | 64 | -22 | -6 | 75 |
| SENECA | 84 | 109 | 30 | 109 | 81 | -26 | 81 | 96 | 19 | 96 | 77 | -20 | 1 | 89 |
| ST. LAWRENCE | 46 | 52 | 13 | 52 | 37 | -29 | 37 | 41 | 11 | 41 | 43 | 5 | 0 | 44 |
| Total | 375 | 396 | 6 | 396 | 359 | -9 | 359 | 376 | 5 | 376 | 326 | -13 | -3 | 366 |

Graduate Certificate

| Program: 71304 - BIOINFORMATICS | | | | | | | | | | | | | | |
|---------------------------------|----------------------------|----|----|----------------------------|----|-----|----------------------------|----|-----|----------------------------|----|-----|----------------------------|------------------------------|
| | 2007 2008 % Change (07-08) | | | 2008 2009 % Change (08-09) | | | 2009 2010 % Change (09-10) | | | 2010 2011 % Change (10-11) | | | % Mean Growth Rate (07-11) | 5 Year Average Reg. Students |
| CENTENNIAL | 5 | | | 5 | 6 | 20 | 6 | 10 | 67 | 10 | | | 43 | 7 |
| SENECA | 13 | 19 | 46 | 19 | 13 | -32 | 13 | 11 | -15 | 11 | 14 | 27 | 7 | 14 |
| Total | 13 | 24 | 85 | 24 | 19 | -21 | 19 | 21 | 11 | 21 | 14 | -33 | 10 | 18 |

Key Research Findings

Degree

| Program: 81304 - BACHELOR OF APPLIED TECHNOLOGY (BIOTECHNOLOGY) | | | | | | | | | | | | | | |
|---|----------------------------|----|----|----------------------------|----|-----|----------------------------|----|----|----------------------------|----|-----|----------------------------|------------------------------|
| | 2007 2008 % Change (07-08) | | | 2008 2009 % Change (08-09) | | | 2009 2010 % Change (09-10) | | | 2010 2011 % Change (10-11) | | | % Mean Growth Rate (07-11) | 5 Year Average Reg. Students |
| FANSHAWE | 15 | 18 | 20 | 18 | 16 | -11 | 16 | 27 | 69 | 27 | 22 | -19 | 15 | 20 |
| LA CITÉ COLLÉGIAL | 24 | 22 | -8 | 22 | 20 | -9 | 20 | 20 | 0 | 20 | 27 | 35 | 4 | 23 |
| Total | 39 | 40 | 3 | 40 | 36 | -10 | 36 | 47 | 31 | 47 | 49 | 4 | 7 | 42 |

Labour Market

● **MODERATE**

Employment Ontario²

Chemical Technologists and Technicians (NOC – 2211)

- Employment Ontario Rating (2009-2013):
 - **Average**
- Education/Training
 - “Completion of a three-year or equivalent program for chemical technologists or a two-year or an equivalent program for chemical technicians is usually required. Several different educational backgrounds can provide entrance to an occupation within this classification. Certification in chemical technology or in a related field is available through provincial associations of engineering and applied science. In Ontario, the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) certifies engineering/applied science technologists and technicians. The certification process includes a period of supervised work experience, usually up to two years, and a professional practice examination. Some chemical technologists and technicians working in support of fundamental research in chemistry or biochemistry are university graduates.”
- Demand
 - “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.”

² “2211 Applied Chemical Technologists and Technicians.” *Employment Ontario*. N.p., n.d. Web. 22 June 2012. <http://www.tcu.gov.on.ca/eng/labourmarket/ojf/pdf/2211_e.pdf>.

Key Research Findings

HRSDC³

Chemical Technologists and Technicians (NOC – 2211)

- Job Openings (2011/2020): **12,000**
- Job Seekers(2011/2020): **14,953**
- Post Secondary Education Graduates: **12,935**
- “Based on projections and considering that labour supply exceeded demand in this occupation over the 2008-2010 period, it is expected that there will continue to be a surplus of labour so that the number of job seekers will be greater than the job openings over the 2011-2020 period. The majority of job openings will arise from retirements, despite a retirement rate on par with the average for all occupations. Employment growth will be slightly higher than average employment growth in the economy. This will be a big improvement over the 2001-2010 period when employment declined. The strong employment growth will be due to the strong growth in professional, scientific and technical services as a result of projected increases in investments in machinery, equipment, research and development and subcontracting services. With regard to labour supply, the majority of job seekers will come from the school system. However, a large number of workers will leave this occupation to work in another occupation, in part because the number of school leavers will exceed the labour demand.”

US Bureau of Labour⁴

Forensic Science Technicians (SOC –19-4092)

- Employment Growth (2010/2020): **Increase 19%**
 - **13,000** (2010) to **15,400** (2020)
- “Technological advances and the growing awareness of forensic evidence among potential jurors are expected to increase the use of forensic evidence in criminal proceedings. More forensic science technicians will be needed to provide timely forensics information to law enforcement agencies and courts.”
- “Competition for jobs should be stiff because of the substantial interest in forensic science and crime scene investigation spurred by its portrayal in popular media. Applicants with experience or a bachelor’s degree in forensic science or a related field should have the best opportunities. Year to year, the number of job openings available will vary based on federal, state, and local law enforcement budgets.”

Sector Council Report

- Students in Fleming’s Biotechnology Technologist – Forensics can seek accreditation with:
 - College of Medical Laboratory Technologists of Ontario (CMLTO)⁵
 - Ontario Association of Certified Engineering Technicians and Technologists⁶

³ "Technical Occupations In Physical Sciences (221)." *Human Resources and Skills Development Canada*. N.p., n.d. Web. 22 June 2012. <<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=38>>.

⁴ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition, Forensic Science Technicians, Web. <http://www.bls.gov/ooh/life-physical-and-social-science/forensic-science-technicians.htm>, June 22, 2012.

⁵ *The College of Medical Laboratory Technologists of Ontario*. N.p., n.d. Web. 22 June 2012. <<http://www.cmlto.com/>>.

⁶ *The Ontario Association of Certified Engineering Technicians and Technologists*. N.p., n.d. Web. 22 June 2012. <http://www.oacett.org/page.asp?P_ID=98>.

Key Research Findings

Employment Profile⁷

In 2010-2011, **31.4%** of graduates were employed in a full time position which related to this program of study provincially

| Chemical/Biological | | | | |
|---|-----|----------------------------|-----|----------------------|
| Total Graduates: | 873 | Total Graduates in Survey: | 624 | Response Rate: 71.6% |
| <small>594 graduates were reported after the survey window had closed. While program information for these graduates has been included wherever possible, these graduates are not included in survey results, such as response rates.</small> | | | | |

Programs in Chemical/Biological

| Programs | Duration | Total Grads | Total in Survey | Total in Labour Force | Colleges |
|--|--------------|-------------|-----------------|-----------------------|---|
| Bio-food Technology | 3 Years | 3 | 1 | 1 | Loyalist |
| Bioinformatics | Post Diploma | 10 | 10 | 5 | Seneca |
| Biomedical Engineering Technology | 3 Years | 34 | 23 | 22 | Centennial, Durham |
| Biotechnology – Bachelor Of Applied Technology | 4 Years | 16 | 12 | 9 | Fanshawe, La Cité |
| Biotechnology Technician | 2 Years | 163 | 112 | 72 | Canadore, Centennial, Conestoga, Loyalist, Mohawk |
| Biotechnology Technologist | 3 Years | 189 | 137 | 103 | Algonquin, Canadore, Centennial, Durham, Loyalist, Seneca, Sir Sandford Fleming, St. Lawrence |
| Chemical Engineering Technician | 2 Years | 4 | 3 | 3 | Loyalist |
| Chemical Engineering Technology | 3 Years | 152 | 106 | 92 | Boréal, Cambrian, Durham, Fanshawe, Humber, Loyalist, Mohawk, Seneca, Sheridan |
| Chemical Laboratory Technician | 2 Years | 80 | 57 | 40 | Boréal, Humber, Seneca, Sheridan |
| Chemical Laboratory Technology | 3 Years | 68 | 55 | 45 | Durham, Seneca, St. Clair |
| Clinical Research | Post Diploma | 56 | 42 | 40 | Humber |
| Laboratory Assistant | 1 Year | 2 | 2 | 1 | Centennial |
| Regulatory Affairs | Post Diploma | 75 | 53 | 51 | Humber, Seneca |
| Winery And Viticulture Technician | 2 Years | 21 | 11 | 10 | Niagara |

Summary of Survey Data

| | Program Cluster | All Programs |
|----------------------------------|-----------------|--------------|
| Survey Population | 624 | 50,622 |
| Labour Force Participation | 79% | 74% |
| Employment Rate ^a | 73% | 83% |
| Employed Part-time ^a | 13% | 18% |
| Employed Full-time ^a | 60% | 65% |
| Average Annual Earnings – Total | \$34,364 | \$33,199 |
| Average Annual Earnings – Female | \$33,839 | \$31,897 |
| Average Annual Earnings – Male | \$34,593 | \$34,607 |
| Graduate Satisfaction | 74% | 79% |
| Employer Satisfaction | 97% | 93% |

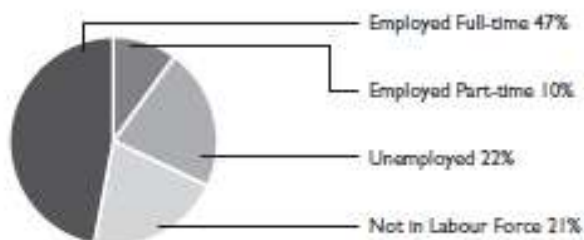
a. As a percentage of graduates in the labour force.

⁷ "Employment Profile." Ontario. N.p., 2011. Web. 19 July 2012.
<<http://www.tcu.gov.on.ca/pepg/audiences/colleges/serials/eprofile09-10/profile10.pdf>>.

Key Research Findings

Chemical/Biological

Graduate Outcomes for Program Cluster (as a percentage of all respondents)



Top Five Industries of Employment

| | # | % |
|---|----|-------|
| Professional, Scientific and Technical Services | 78 | 23.1% |
| Food Manufacturing | 29 | 8.6% |
| Chemical Manufacturing | 28 | 8.3% |
| Food Services and Drinking Places | 25 | 7.4% |
| Various* (each at this level of participation) | 19 | 5.6% |

* Educational Services; Hospitals

Top Five Occupational Categories

| | # | % |
|---|----|-------|
| Chemical Technologists and Technicians | 56 | 16.4% |
| Health Policy Researchers, Consultants and Program Officers | 39 | 11.4% |
| Biological Technologists and Technicians | 20 | 5.9% |
| Retail Salespersons and Sales Clerks | 15 | 4.4% |
| Customer Service, Information and Related Clerks | 14 | 4.1% |

Key Research Findings

Chemical/Biological

Summary of Graduate Outcomes by Program

| | Full-time Employed, Program Related | | Full-time Employed, Program Unrelated | | Part-time Employed, Program Related | | Part-time Employed, Program Unrelated | | Unemployed | | Not in Labour Force | |
|--|-------------------------------------|-------------|---------------------------------------|-------------|-------------------------------------|------------|---------------------------------------|------------|------------|-------------|---------------------|-------------|
| | # | % | # | % | # | % | # | % | # | % | # | % |
| Bioinformatics | 2 | 20.0 | 1 | 10.0 | — | — | — | — | 2 | 20.0 | 5 | 50.0 |
| Biomedical Engineering Technology | 9 | 39.1 | 3 | 13.0 | 1 | 4.3 | — | — | 9 | 39.1 | 1 | 4.3 |
| Biotechnology – Bachelor Of Applied Technology | 4 | 33.3 | 2 | 16.7 | 1 | 8.3 | — | — | 2 | 16.7 | 3 | 25.0 |
| Biotechnology Technician | 22 | 19.6 | 15 | 13.4 | 3 | 2.7 | 13 | 11.6 | 19 | 17.0 | 40 | 35.7 |
| Biotechnology Technologist | 43 | 31.4 | 21 | 15.3 | 3 | 2.2 | 9 | 6.6 | 27 | 19.7 | 34 | 24.8 |
| Chemical Engineering Technology | 47 | 44.3 | 15 | 14.2 | 2 | 1.9 | 4 | 3.8 | 24 | 22.6 | 14 | 13.2 |
| Chemical Laboratory Technician | 5 | 8.8 | 9 | 15.8 | 2 | 3.5 | 7 | 12.3 | 17 | 29.8 | 17 | 29.8 |
| Chemical Laboratory Technology | 17 | 30.9 | 6 | 10.9 | 3 | 5.5 | 8 | 14.5 | 11 | 20.0 | 10 | 18.2 |
| Clinical Research | 26 | 61.9 | 3 | 7.1 | 3 | 7.1 | 1 | 2.4 | 7 | 16.7 | 2 | 4.8 |
| Regulatory Affairs | 34 | 64.2 | 5 | 9.4 | — | — | 3 | 5.7 | 9 | 17.0 | 2 | 3.8 |
| Winery And Viticulture Technician | 3 | 27.3 | — | — | — | — | 2 | 18.2 | 5 | 45.5 | 1 | 9.1 |
| All Programs in Cluster* | 212 | 34.3 | 80 | 12.9 | 18 | 2.9 | 47 | 7.6 | 132 | 21.4 | 129 | 20.9 |

* Does not include 3 programs with fewer than 5 graduates in the labour force.

Earnings of Full-time Employed Participants

| Program | Average – Females | Average – Males | Median – Females | Median – Males | Average for Program | Median for Program |
|--|-------------------|-----------------|------------------|-----------------|---------------------|--------------------|
| Bioinformatics | — | — | — | — | — | — |
| Biomedical Engineering Technology | — | \$47,604 | — | \$44,000 | \$47,644 | \$46,000 |
| Biotechnology – Bachelor Of Applied Technology | — | — | — | — | \$38,951 | \$34,000 |
| Biotechnology Technician | \$28,607 | \$32,423 | \$27,514 | \$30,000 | \$30,207 | \$30,000 |
| Biotechnology Technologist | \$28,896 | \$27,668 | \$27,114 | \$29,665 | \$28,450 | \$28,353 |
| Chemical Engineering Technology | \$36,453 | \$36,852 | \$38,000 | \$35,000 | \$36,717 | \$36,344 |
| Chemical Laboratory Technician | \$28,017 | \$29,390 | \$31,286 | \$22,943 | \$28,757 | \$28,679 |
| Chemical Laboratory Technology | \$26,861 | \$30,488 | \$27,375 | \$27,245 | \$28,675 | \$27,375 |
| Clinical Research | \$40,869 | — | \$38,325 | — | \$39,430 | \$39,163 |
| Regulatory Affairs | \$42,385 | — | \$40,000 | — | \$42,270 | \$40,000 |
| Winery And Viticulture Technician | — | — | — | — | — | — |
| All Programs in Cluster* | \$33,853 | \$34,640 | \$32,000 | \$31,200 | \$34,215 | \$31,494 |

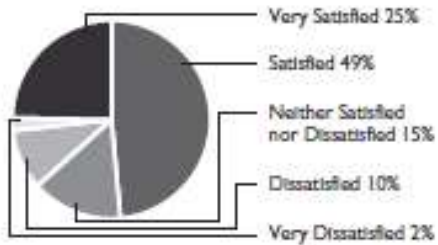
* Does not include 3 programs with fewer than 5 graduates in the labour force.

Key Research Findings

Chemical/Biological

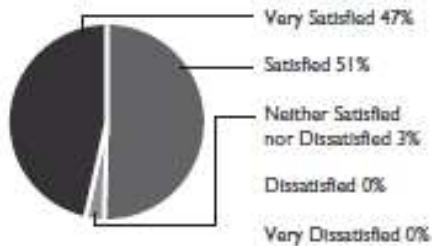
Program Cluster Satisfaction

Graduate Satisfaction with the usefulness of his/her college education in achieving his/her goals after graduation.*



* 580 graduates participated in this question.

Employer Satisfaction with employee overall college preparation for the type of work he/she was doing.*



* 73 employers participated in this survey.

Program Cluster Historical Data

| | 00-01 Grads | 01-02 Grads | 02-03 Grads | 03-04 Grads | 04-05 Grads | 05-06 Grads | 06-07 Grads | 07-08 Grads | 08-09 Grads | 09-10 Grads |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Percentage Employed | 86.3% | 86.2% | 83.3% | 80.6% | 85.2% | 85.4% | 88.5% | 83.3% | 75.8% | 72.9% |
| Percentage Employed Full-time | 81.2% | 79.4% | 72.8% | 70.4% | 79.4% | 77.0% | 80.2% | 74.5% | 66.1% | 59.7% |
| Percentage in Full-time Related Jobs | 63.8% | 64.2% | 58.2% | 53.7% | 59.3% | 56.4% | 60.5% | 54.1% | 39.6% | 43.5% |
| Average Annual Salary Full-time Related Jobs | \$33,497 | \$33,574 | \$34,231 | \$35,389 | \$37,682 | \$37,295 | \$39,434 | \$40,133 | \$38,413 | \$37,878 |

Key Research Findings

Working in Canada⁸

Chemical Technologists and Technicians (NOC – 2211)

- Ontario Rating: **Not Available**

- **Wage Range by Region:**

| Location | Wage (\$/hr) | | |
|------------------------------------|--------------|--------|-------|
| | Low | Median | High |
| Ontario | 13.00 | 25.00 | 36.94 |
| Hamilton--Niagara Peninsula Region | 13.00 | 25.00 | 36.94 |
| Kingston - Pembroke Region | 13.00 | 25.00 | 36.94 |
| Kitchener--Waterloo--Barrie Region | 13.00 | 25.00 | 36.94 |
| London Region | 13.00 | 25.00 | 36.94 |
| Muskoka-Kawartha Region | 13.00 | 25.00 | 36.94 |
| Northeast Region | 13.00 | 25.00 | 36.94 |
| Northwest Region | 13.00 | 25.00 | 36.94 |
| Ottawa Region | 13.00 | 25.00 | 36.94 |
| Stratford--Bruce Peninsula Region | 13.00 | 25.00 | 36.94 |
| Toronto Region | 13.00 | 25.00 | 36.94 |
| Windsor-Sarnia Region | 13.00 | 25.00 | 36.94 |

Competitive Analysis⁹

- **MODERATE**

The following information consists of OCAS yearly fall application and registration data as well as a conversion ratio for each program under this category:

Diploma

- In 2011, Conestoga had the best conversion ratio (**3:1**) and Centennial had the worst (**6:1**)

Advanced Diploma

- Fleming had a **4:1** conversion ratio in 2011, which was better than Durham's, Seneca's and the system's ratio of **5:1**
- Canadore had the lowest conversion ratio in 2011 with **8:1**

⁸ "Chemical Technologists and Technicians (NOC 2211)." *Working in Canada*. N.p., n.d. Web. 22 June 2012.

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&lang=eng&noc=2211&action=final@ionKeyword=Peterborough%2C+Ontario&s=1&source=2&titleKeyword=biochemistry+technologist#report_tabs_container2>.

⁹ Application data obtained from OCAS College Count Cube October 19, 2011 Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011. Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset Prepared by Fleming Data Research (07-2012)

Key Research Findings

Graduate Certificate

- Seneca had a higher conversion ratio (**5:1**) than the system (**6:1**) in 2011

Degree

- In 2011, La Cite had a better conversion ratio (**3:1**) than the system (**4:1**), and Fanshawe had a low conversion ratio of **7:1**

Diploma

| Program: 51304 - BIOTECHNOLOGY TECHNICIAN | | | | | | | | | | | | |
|---|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|
| | App. 2007 | Reg. 2007 | Conversion Ratio | App. 2008 | Reg. 2008 | Conversion Ratio | App. 2009 | Reg. 2009 | Conversion Ratio | App. 2010 | Reg. 2010 | Conversion Ratio |
| CANADORE | 43 | 1 | 43:1 | 36 | 3 | 12:1 | 33 | 5 | 7:1 | 30 | 3 | 10:1 |
| CENTENNIAL | 133 | 21 | 6:1 | 130 | 21 | 6:1 | 116 | 21 | 6:1 | 109 | 13 | 8:1 |
| CONESTOGA | 183 | 31 | 6:1 | 193 | 49 | 4:1 | 199 | 49 | 4:1 | 171 | 51 | 3:1 |
| LOYALIST | 106 | 24 | 4:1 | 97 | | | 112 | 28 | 4:1 | 114 | 28 | 4:1 |
| MOHAWK | 382 | 92 | 4:1 | 391 | 95 | 4:1 | 507 | 106 | 5:1 | 366 | 87 | 4:1 |
| Total | 847 | 169 | 5:1 | 847 | 168 | 5:1 | 967 | 209 | 5:1 | 790 | 182 | 4:1 |

Advanced Diploma

| Program: 61304 - BIOTECHNOLOGY TECHNOLOGIST | | | | | | | | | | | | |
|---|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|
| | App. 2007 | Reg. 2007 | Conversion Ratio | App. 2008 | Reg. 2008 | Conversion Ratio | App. 2009 | Reg. 2009 | Conversion Ratio | App. 2010 | Reg. 2010 | Conversion Ratio |
| ALGONQUIN | 131 | 41 | 3:1 | 228 | 71 | 3:1 | 247 | 66 | 4:1 | 261 | 66 | 4:1 |
| CANADORE | 64 | 14 | 5:1 | 61 | 12 | 5:1 | 72 | 16 | 5:1 | 60 | 10 | 6:1 |
| CENTENNIAL | 302 | 70 | 4:1 | 275 | 45 | 6:1 | 275 | 57 | 5:1 | 218 | 41 | 5:1 |
| DURHAM | 151 | 30 | 5:1 | 176 | 31 | 6:1 | 193 | 37 | 5:1 | 170 | 40 | 4:1 |
| → FLEMING | 249 | 90 | 3:1 | 270 | 76 | 4:1 | 270 | 65 | 4:1 | 251 | 82 | 3:1 |
| SENECA | 336 | 84 | 4:1 | 343 | 109 | 3:1 | 345 | 81 | 4:1 | 378 | 96 | 4:1 |
| ST. LAWRENCE | 165 | 46 | 4:1 | 182 | 52 | 4:1 | 171 | 37 | 5:1 | 188 | 41 | 5:1 |
| Total | 1398 | 375 | 4:1 | 1535 | 396 | 4:1 | 1573 | 359 | 4:1 | 1526 | 376 | 4:1 |

Graduate Certificate

| Program: 71304 - BIOINFORMATICS | | | | | | | | | | | | |
|---------------------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|
| | App. 2007 | Reg. 2007 | Conversion Ratio | App. 2008 | Reg. 2008 | Conversion Ratio | App. 2009 | Reg. 2009 | Conversion Ratio | App. 2010 | Reg. 2010 | Conversion Ratio |
| CENTENNIAL | 0 | | | 19 | 5 | 4:1 | 28 | 6 | 5:1 | 25 | 10 | 3:1 |
| SENECA | 76 | 13 | 6:1 | 74 | 19 | 4:1 | 82 | 13 | 6:1 | 78 | 11 | 7:1 |
| Total | 76 | 13 | 6:1 | 93 | 24 | 4:1 | 110 | 19 | 6:1 | 103 | 21 | 5:1 |

Key Research Findings

Degree

| Program: 81304 - BACHELOR OF APPLIED TECHNOLOGY (BIOTECHNOLOGY) | | | | | | | | | | | | | | | |
|---|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|--------------|--------------|---------------------|
| | App. 2007 | Reg. 2007 | Conversion Ratio | App. 2008 | Reg. 2008 | Conversion Ratio | App. 2009 | Reg. 2009 | Conversion Ratio | App. 2010 | Reg. 2010 | Conversion Ratio | App. 2011 | Reg. 2011 | Conversion Ratio |
| FANSHAWE | 116 | 15 | 8:1 | 99 | 18 | 6:1 | 115 | 16 | 7:1 | 146 | 27 | 5:1 | 146 | 22 | 7:1 |
| LA CITÉ COLLÉGIAL | 63 | 24 | 3:1 | 58 | 22 | 3:1 | 64 | 20 | 3:1 | 64 | 20 | 3:1 | 73 | 27 | 3:1 |
| Total | 179 | 39 | 5:1 | 157 | 40 | 4:1 | 179 | 36 | 5:1 | 210 | 47 | 4:1 | 219 | 49 | 4:1 |

Financial Analysis

• **STRONG**

Source: Program Costing Analysis 2010/2011

- Contribution to Overhead: 52.8%
- Program Weight: 1.30
- Funding Unit: 3.40

Key Performance Indicators

• **WEAK**

Source: Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012

| | |
|-------------------------------------|-------------------|
| KPI1-Graduation Rate | +11% above system |
| KPI2-Working | +3% above system |
| KPI3-Working Related | -7% below system |
| KPI4-Grad. Satisfaction | -1% below system |
| KPI8-Student Satisfaction-Learning | -1% below system |
| KPI9-Student Satisfaction- Teachers | -1% below system |
| KPI11-Grad. Satisfaction-Program | -6% below system |

Resource Analysis

Equipment

Staffing

Space

Key Research Findings

Appendix

The following is the original environmental scan conducted by the Library Researchers to form the basis of the previous summary of Key Research Findings Report.

Biotechnology Technologist - Forensics

Overview of the Profession:

NOC 2211: Chemical Technician and Technologist

This NOC code covers forensic examiner, forensic lab technician/technologist, biochemical technologist, forensic lab analyst

Chemical technologists perform some or all of the following duties:

Set up and conduct chemical experiments, tests and analyses using techniques such as chromatography, spectroscopy, physical and chemical separation techniques and microscopy

Operate and maintain laboratory equipment and apparatus and prepare solutions of gas or liquid, reagents, and sample formulations

Compile records and interpret experimental or analytical results

Develop and conduct programs of sampling and analysis to maintain quality standards of raw materials, chemical intermediates and products

Assist in the development of chemical engineering processes, studies of chemical engineering procurement, construction, inspection and maintenance and the development of standards, procedures and health and safety measures

Operate experimental chemical or petrochemical pilot plants

Conduct or assist in air and water quality testing and assessments, environmental monitoring and protection activities, and development of and compliance with standards

Assist in synthesis of small molecules for the purpose of creating drug candidates.

Assist in the design and fabrication of experimental apparatus.

Chemical technicians perform some or all of the following duties:

Assist in setting up and conducting chemical experiments, tests and analyses

Operate and maintain laboratory equipment and apparatus and prepare solutions of gas and liquid, reagents and sample formulations

Compile records for analytical studies

Assist in developing and conducting programs of sampling and analysis to maintain quality standards

Carry out a limited range of other technical functions in support of chemical research, tests and analyses, and environmental air and water quality monitoring and protection

Assist in the design and fabrication of experimental apparatus.

Common Job Titles

analytical technician

chemical, biochemistry technologist

Key Research Findings

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

Typical Employers

research and development and quality control laboratories
 consulting engineering companies, in chemical, petrochemical, pharmaceutical
 variety of manufacturing and processing industries
 utilities, health, education and government establishments

Labour Market

Working in Canada

Employment potential for the Kawartha Region and for Ontario is not available. (Working in Canada)

<http://www.workingincanada.gc.ca/report-eng.do?area=8792&lang=eng&noc=2211&action=final&ln=p®ionKeyword=Peterborough%2C+Ontario&s=2&source=2&titleKeyword=biochemistry+technologist#outlook>

HRDSC

National Outlook 10 Year Projection (2011-2020)

| | |
|--|---|
| Occupations in this group | Applied Chemical Technologists and Technicians (2211), Geological and Mineral Technologists and Technicians (2212), Meteorological Technicians (2213) |
| Employment (non-student) in 2012-06-13 | 28,404 |
| Median age of workers in 2010 | 38.1 |
| Average retirement age in 2010 | 59 |

For **Technical Occupations In Physical Sciences**, over the 2011-2020 period, job openings (arising from expansion demand and replacement demand) are expected to total **12,000** and **14,953** job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.

Over the 2008-2010 period, this occupation experienced a drop in employment, while its unemployment rate increased significantly. The unemployment rate is now the highest among the natural and applied sciences occupations. The average hourly wage increased at the same rate as for all occupations.

Key Research Findings

According to key labour market indicators, the number of job seekers was more than sufficient to fill the job openings in this occupation.

5. According to Employment Ontario the Opportunities for employment in this occupation are expected to be average over the period from 2009 to 2013.

6. According to Employment Ontario (Estimates 2006), 2% of workers in this group were self-employed, 92% full-time.

7. Wages for the Kawartha/Muskoka region 2010:

Low: \$13.00

Average: \$25.00

High: \$36.94

US Bureau of Labour

<http://www.bls.gov/oco/ocos211.htm#outlook>

Material from Forensic Science Technicians:

Job Outlook

Employment Change. Employment of forensic science technicians is projected to grow by 19 percent from 2010 to 2020, about as fast as the average for all occupations. Technological advances and the growing awareness of forensic evidence among potential jurors are expected to increase the use of forensic evidence in criminal proceedings. More forensic science technicians will be needed to provide timely forensics information to law enforcement agencies and courts.

Job Prospects. Competition for jobs should be stiff because of the substantial interest in forensic science and crime scene investigation spurred by its portrayal in popular media. Applicants with experience or a bachelor's degree in forensic science or a related field should have the best opportunities. Year to year, the number of job openings available will vary based on federal, state, and local law enforcement budgets.

No Council Sector reports are available.

Industry Standards:

This occupation does **not** require certification in **Ontario**. It's not regulated in any Canadian province or territory.

Students in Fleming's Biotechnology Technologist – Forensics can seek accreditation with [Ontario Association of Certified Engineering Technicians and Technologists](#). Another accrediting body would be [College of Medical Laboratory Technologists of Ontario \(CMLTO\)](#).

Professional Associations:

[BioTalent Canada](#)

[Canadian Environmental Certification Approvals Board](#)

[Canadian Society of Clinical Chemists](#)

[College of Medical Laboratory Technologists of Ontario \(CMLTO\)](#)

[ECO Canada \(Environmental Careers Organization\)](#)

[Ontario Association of Certified Engineering Technicians and Technologists](#)

Employment Standards

Employment requirements are prerequisites generally needed to enter an occupation.

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.

Key Research Findings

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.

[Source: [National Occupational Classification 2006 - HRSDC](#)]

Educational Programs Leading to this Occupation

Programs in the order in which they are most likely to supply graduates to this occupation (Chemical Technologists and Technicians):

[Physical Science Technologies/Technicians](#)

[Chemistry](#)

[Environmental Control Technologies/Technicians](#)

[Biochemistry/Biophysics and Molecular Biology](#)

[Biology, General](#)

[Source: [2006 Census - Statistics Canada](#)]

Educational Competitors

Individual Community College/Institute Information

(Click on the Program Title to view college program page)

Colleges currently offering this program: only Fleming. There are many colleges offering Biotechnology Technologist programs.

Fleming

[Biotechnology Technologist – Forensics](#) – Advanced Diploma

Other Biotechnology college programs:

Algonquin

[Biotechnology Technologist](#) – Advanced Diploma

Mobile learning program

Canadore

[Biotechnology Technician](#) – Diploma

[Biotechnology Technologist](#) – Advance Diploma

Centennial

[Biotechnology Technician – Industrial Microbiology](#) – Diploma

[Biotechnology Technologist – Industrial Microbiology](#) – Advanced Diploma

Fast track and co-op options are available

Key Research Findings

[Medical Laboratory Technician](#) – Certificate
3 semesters

Conestoga
[Biotechnology Technician](#) – Diploma

Durham
[Biotechnology Technologist](#) – Advanced Diploma

[Biotechnology Technologist – Biotechnology Pharmaceutical](#) – Advanced Diploma
Compressed and fast track

Fanshawe
[Bachelor of Applied Technology – Biotechnology](#) – Degree
Co-op
4 year program

Loyalist
[Biotechnology Technician](#) – Diploma

[Biotechnology Technologist](#) – Advanced Diploma

[Chemical Laboratory Assistant](#) – Certificate

Mohawk
[Biotechnology Technician](#) – Diploma
Optional co-op

[Biotechnology Technician – Health](#) – Diploma
Optional co-op

Seneca
[Biotechnology Technologist – Research](#) – Advanced Diploma
Accelerated
Optional co-op

St. Lawrence
[Biotechnology Technologist](#) – Advanced Diploma

Another Interesting Program:
George Brown
[Forensic Nursing](#) – Certificate
Continuing Education Program

| Institute | APS # | Approved Program name | MTCU Code | Program Weight | Funding Unit | Degree Factor |
|-----------|----------|-----------------------|--------------|-------------------|-----------------|------------------|
|-----------|----------|-----------------------|--------------|-------------------|-----------------|------------------|

Key Research Findings

| | | | | | | |
|-------------|------|--|-------|------|------|------|
| FANSHAWE | 3001 | Bachelor Of Applied Technology - Biotechnology | 81304 | 1.30 | 4.20 | 4.00 |
| CANADORE | 1147 | Biotechnology Technician | 51304 | 1.30 | 2.30 | 2.00 |
| CENTENNIAL | 1181 | Biotechnology Technician - Industrial Microbiology | 51304 | 1.30 | 2.30 | 2.00 |
| CONESTOGA | 1176 | Biotechnology Technician | 51304 | 1.30 | 2.30 | 2.00 |
| LOYALIST | 1103 | Biotechnology Technician | 51304 | 1.30 | 2.30 | 2.00 |
| MOHAWK | 1197 | Biotechnology Technician | 51304 | 1.30 | 2.30 | 2.00 |
| ALGONQUIN | 1343 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| CANADORE | 1146 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| CENTENNIAL | 1182 | Biotechnology Technologist - Industrial Microbiology | 61304 | 1.30 | 3.40 | 3.00 |
| DURHAM | 1146 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| LOYALIST | 1120 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| SENECA | 1224 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| ST LAWRENCE | 1168 | Biotechnology Technologist | 61304 | 1.30 | 3.40 | 3.00 |
| SSFL | 1215 | Biotechnology Technologist - Forensics | 61304 | 1.30 | 3.40 | 3.00 |

Employment Postings:

On June 14, 2012, there were no postings in Canada for Forensic technologists/technicians in the Job Bank. (www.jobbank.gc.ca). There were 2 biotechnologist positions advertised in Ontario and 17 lab positions. Below are some samples.

Job Number: 6450583

Title: **Chemical laboratory technician (Fire Assayer)** (NOC: 2211)

Terms of Employment: Permanent, Full Time, Shift, Overtime, Weekend, Day, Evening

Salary: \$12.00 to \$14.00 Hourly for 40 hours per week, Medical Benefits, Dental Benefits, Life Insurance Benefits, Vision Care Benefits

Anticipated Start Date: As soon as possible

Location: Ancaster, Ontario (3 vacancies)

Skill Requirements:

Education: Completion of high school, Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: Experience an asset

Languages: Speak English, Read English, Write English

Area of Specialization: Geochemistry

Type of Industry Experience: Mineral resources and mining

Key Research Findings

Analytical Techniques: Sampling

Specific Skills: Set up and conduct chemical experiments, tests and analyses, Operate and maintain laboratory equipment, Prepare solution, reagents, and sample formulations

Security and Safety: Bondable, Criminal record check

Transportation/Travel Information: Own transportation

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Repetitive tasks, Manual dexterity, Attention to detail, Hand-eye co-ordination, Ability to distinguish between colours, Standing for extended periods

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Other Information: Weigh Samples, mix dry chemicals, work in a hot environment. Lift over 50 pounds continually. Potential for advancement. No Phone Calls. Reference: Fire Assay. Send Cover letter & resume.

Employer: Activation Laboratories Ltd.

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: hr@actlabs.com

Web Site: <http://www.actlabs.com>

Advertised until: 2012/06/15

Job Number: 6474715

Title: **Biological laboratory technologist (Biotechnology Research Technologist) (NOC: 2221)**

Terms of Employment: Temporary, Full Time, Day

Salary: \$17.49 Hourly for 30 hours per week

Anticipated Start Date: As soon as possible

Location: Kingston, Ontario (1 vacancy)

Skill Requirements:

Education: Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Not applicable

Experience: 2 years to less than 3 years

Languages: Speak English, Read English, Write English

Area of Specialization: Biotechnology

Type of Work Experience: Laboratory testing and analysis

Type of Technical Experience: Animal care and field studies work

Other Information: To apply directly to the position, please visit us at:

http://bts.calian.com/en/career_jobs/jobdescriptionmutiple.asp?curr=1&WebJobPostingsID=6039

Employer: Calian (Placement Agency)

How to Apply:

Key Research Findings

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: v.fortin@calian.com
Online: <http://www.calian.jobs>
Web Site: <http://www.calian.jobs>
Advertised until: 2012/06/21

Job Number: 6459244

Title: **Quality control technologist - chemical processing (NOC: 2211)**

Terms of Employment: Permanent, Full Time, Day

Salary: \$58,000.00 to \$65,000.00 Yearly for 40 hours per week, Bonus, Medical Benefits, Dental Benefits, Group Insurance Benefits

Anticipated Start Date: As soon as possible

Location: Mississauga, Ontario (1 vacancy)

Skill Requirements:

Education: Completion of college/CEGEP/vocational or technical training, Completion of university

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: 3 years to less than 5 years

Languages: Speak English, Read English, Write English

Area of Specialization: Biotechnology

Type of Work Experience: Analysis, Process troubleshooting, Quality assurance and control

Type of Industry Experience: Pharmaceuticals and medicines

Specific Skills: Develop and conduct programs of sampling and analysis, Assist in development of standards, health and safety measures

Additional Skills: Know and use computer hardware and software

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Attention to detail

Work Location Information: Urban area

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Employer: Caron Executive Search (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: info@caronexecutive.com
Web Site: <http://www.caronexecutive.com>
Advertised until: 2012/06/24

Key Research Findings

Job Number: 6476987

Title: **Laboratory assistant - applied chemistry** (For environmental health solutions laboratory) (NOC: 2211)

Terms of Employment: Permanent, Full Time, Day

Salary: \$33,000.00 Yearly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: Etobicoke, Ontario (1 vacancy)

Skill Requirements:

Education: Completion of university

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: 1 to less than 7 months

Languages: Speak English, Read English, Write English

Area of Specialization: Organic chemistry

Specific Skills: Assist in set up and conduction of chemical experiments, Prepare solution, reagents, and sample formulations, Assist in developing and conducting sampling and analysis

Additional Skills: Know and use computer hardware and software

Security and Safety: Basic security clearance, Criminal record check

Transportation/Travel Information: Own transportation, Public transportation is available

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Attention to detail

Work Location Information: Urban area

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Finding information, Computer use

Employer: CASSEN GROUP INC.

How to Apply:

[Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.](#)

By Mail:

51 International Blvd.

Toronto, Ontario

M9W 6H3

By Fax: (416) 679-9668

By E-mail: apply@cassengroup.com

Advertised until: 2012/06/25

Job Number: 6478733

Title: **Chemical technician (Lab Technician)** (NOC: 2211)

Terms of Employment: Permanent, Full Time, Weekend, Day, Night, Evening

Salary: \$12.00 to \$14.00 Hourly for 40 hours per week, Medical Benefits, Dental Benefits, Life Insurance Benefits, Vision Care Benefits

Anticipated Start Date: As soon as possible

Location: Dryden, Ontario (1 vacancy)

Key Research Findings

Skill Requirements:

Education: Completion of high school, Completion of college/CEGEP/vocational or technical training, Completion of university

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: Experience an asset

Languages: Speak English, Read English, Write English

Area of Specialization: Analytical chemistry, Inorganic chemistry

Type of Work Experience: Analysis, Process troubleshooting

Type of Industry Experience: Mineral resources and mining, Industrial and inorganic chemicals, Scientific and professional equipment

Analytical Techniques: Spectroscopy, Sampling

Specific Skills: Set up and conduct chemical experiments, tests and analyses, Operate and maintain laboratory equipment, Assist in developing and conducting sampling and analysis

Security and Safety: Bondable, Criminal record check

Transportation/Travel Information: Own transportation

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Manual dexterity, Attention to detail, Hand-eye co-ordination

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Other Information: Perform dilutions, analytical procedures in wet chemistry lab. Reference: Lab Tech Dryden. Drop off resumes not accepted. Send cover letter, resume and transcripts. No Phone Calls!

Employer: Activation Laboratories Ltd.

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By Fax: (807) 223-6954

By E-mail: JamesRogers2@actlabs.com

Web Site: <http://www.actlabs.com>

Advertised until: 2012/06/26

Job Number: 6470797

Title: Chemical laboratory technician (Fire Assayer) (NOC: 2211)

Terms of Employment: Permanent, Full Time, Shift, Overtime, Weekend, Day, Evening

Salary: \$12.50 to \$14.00 Hourly for 40 hours per week, Medical Benefits, Dental Benefits, Life Insurance Benefits, Vision Care Benefits

Anticipated Start Date: As soon as possible

Location: Thunder Bay, Ontario (2 vacancies)

Skill Requirements:

Key Research Findings

Education: Completion of high school, Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Not required

Experience: Experience an asset

Languages: Speak English, Read English, Write English

Area of Specialization: Geochemistry

Type of Industry Experience: Mineral resources and mining

Analytical Techniques: Sampling

Specific Skills: Set up and conduct chemical experiments, tests and analyses, Operate and maintain laboratory equipment, Prepare solution, reagents, and sample formulations

Security and Safety: Bondable, Criminal record check

Transportation/Travel Information: Own transportation

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Repetitive tasks, Manual dexterity, Attention to detail, Hand-eye co-ordination, Ability to distinguish between colours, Standing for extended periods

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Other Information: Weigh Samples, mix dry chemicals, work in a hot environment. Lift over 50 pounds continually. Full time position. Reference Fire Assay No Phone Calls.

Employer: Activation Laboratories Ltd.

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

Contact Name: James Rogers

By Fax: (807) 622-6571

By E-mail: HRTThunderBay@actlabs.com

Web Site: <http://www.actlabs.com>

Advertised until: 2012/06/15

Job Number: 6442180

Title: [Laboratory technician, chemical \(Sample Prep Technician\)](#) (NOC: 2211)

Terms of Employment: Permanent, Part Time, Shift, Overtime, Weekend, Day, Night, Evening

Salary: \$12.00 Hourly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: Sudbury, Ontario (4 vacancies)

Skill Requirements:

Education: Completion of high school, Some college/CEGEP/vocational or technical training, Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Not applicable

Key Research Findings

Experience: Experience an asset

Languages: Speak English, Read English, Write English

Specific Skills: Assist in set up and conduction of chemical experiments

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Repetitive tasks, Attention to detail

Work Location Information: Urban area

Essential Skills: Reading text, Document use, Oral communication, Working with others, Critical thinking

Other Information: Sample preparation can include metals, salinities, particle size, hydrocarbons, etc.

Employer: AGAT Laboratories

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

Online: <http://www.agatlabs.com>

Web Site: <http://www.agatlabs.com>

Advertised until: 2012/06/14

Positions advertised in other locations:

Forensic Scientist, Toxicology

The Centre of Forensic Sciences, Northern Regional Laboratory is part of one of the most extensive forensic science facilities in North America. The Centre provides support in the administration of justice and public safety programs for the citizens of Ontario by conducting scientific examinations and interpretations, presenting independent objective expert testimony to the courts and other tribunals in Ontario and undertaking research and development to extend the scope and quality of forensic science services. The Centre also prepares and presents educational programs and materials on forensic sciences.

The Centre's Northern Regional Lab is located in Sault Ste. Marie, a thriving community of 75,000 situated on the banks of the St. Mary's River less than an hour away from provincial parks and the unspoiled coastlines of Lakes Huron and Superior and with direct air links to Toronto, Ottawa and a number of northern Ontario cities.

What can I expect to do in this role?

The Toxicology Section seeks (1) experienced scientist to:
 examine body tissues and fluids for the presence of drugs and poisons, perform complex analyses using modern instrumentation including Enzyme-Linked ImmunoSorbent Assay (ELISA), Gas Chromatography-Mass Spectrometry (GC/MS) and Liquid Chromatography-Mass Spectrometry/Mass Spectrometry (LC/MS/MS)
 write interpretative reports summarizing the findings in forensic cases
 travel throughout Ontario to give opinion evidence in courts of law

Key Research Findings

participate in research and development projects and client education
mentor and educate junior staff

Location: 70 Foster Drive, Sault Ste. Marie, Ontario

How do I qualify?

Mandatory Requirements:

an honours bachelor of science degree in majors such as pharmacology, toxicology, chemistry, biochemistry or an acceptable equivalent degree of recognized standing

Technical Knowledge:

proven theoretical and practical knowledge of pharmacology, toxicology, analytical chemistry and laboratory techniques
demonstrated experience in a scientific laboratory with skills in the operation of analytical and general laboratory instrumentation deployed in analysis of drugs and toxins and knowledge of quality assurance practices

Other Important Skills:

the demonstrated ability to present complex scientific information and opinion evidence for the purposes of medico-legal proceedings in both oral and written formats
proven oral and written communication and interpersonal skills to liaise with clients and work in a team environment
the demonstrated ability to supervise and manage research projects to facilitate the implementation of new technologies, introduction of new methods and prepare scientific research papers for presentation and publication
knowledge of universal precautions with respect to the handling of post-mortem and ante-mortem body tissues and fluids as well as familiarity with international standards of laboratory accreditation

Note: The successful candidate will be required to undergo a satisfactory criminal reference check prior to the commencement of employment

Salary range: \$1,379.60 – \$1,779.33 per week

Please apply online, only, at www.ontario.ca/careers, quoting Job ID 44073, by May 31, 2012. *Faxes are not being accepted at this time. If you need employment accommodation, please contact us at www.gojobs.gov.on.ca/ContactUs.aspx to provide your contact information. Recruitment Services staff will contact you within 48 hours. Only those applicants selected for an interview will be contacted.*

The Ontario Public Service is an equal opportunity employer. Accommodation will be provided in accordance with the Ontario Human Rights Code.

www.ontario.ca/careers

Forensic Toxicology Manager

Key Research Findings

Job Type: Full Time

Location: Edmonton, AB, CANADA;

Job Category: Management, Medical, Research

Year(s) of Experience: 3

Number Of Positions: 1

Date Posted: May 28, 2012

Gamma-Dynacare Medical Laboratories is looking for a Forensic Toxicology Manager for our laboratory in Edmonton, Alberta. We are searching nationwide for a unique individual who can bring technical expertise and outstanding leadership to this part of our growing company. This is your opportunity to have a meaningful career that impacts lives, every day. "Caring for People" is what we are proud to do.

This rare opening requires specialized knowledge of toxicology-focused laboratory instruments and processes. You need to be a registered medical laboratory technologist with a BSc. in Biochemistry or a similar field and you will have to meet the qualifications for "Responsible Person" required for SAMHSA certified laboratories. As a leader of people, you know how to build an atmosphere of trust that encourages your team to thrive. Coaching a team through change is likely second nature to you now along with your eye for continuous improvement.

If this sounds like you, let's talk. The first step is to submit your information and complete the online questionnaire. If we like what we see, we may contact you to learn even more. Gamma-Dynacare has been a "Top Employer" for many years and there is a reason why. We are a great place to work. Come join us.

Laboratory Technician ICP-OES, ICP-MS, SGS CANADA

Lakefield, ON, CANADA; Oshawa, ON, CANADA; Peterborough, ON, CANADA

Posted Jun 13, 2012 Share This Job:

Key Research Findings

Profile

SGS is the world's leading inspection, verification, testing and certification company. Recognized as the global benchmark for quality and integrity, we employ 70,000 people and operate a network of more than 1,350 offices and laboratories around the world. In Canada, we presently have a staff of over 1800 employees in more than 50 locations from coast - to - coast. We have the following opportunity.....

Primary Responsibilities

This position will carry out geochemical testing and analysis, following written work instructions under the direction of the Supervisor of a specific department.

This job description applies to employees working in the XRF, Party/Umpire, ICP-MS, ICP-OES, Wet-AAS, MMI, CN, LECO, Sample Reduction/Preparation, and Warehouse departments.

Specific Responsibilities

- .Perform laboratory techniques according to written procedures. Duties may include: sample preparation, sample reduction, sample dilutions, setting up analytical batches and analysis, batch Quality Control, approving and releasing results to the data centre, disposal of samples and filing of lab results / data.
- .Calibration and set up of equipment prior to analysis.
- .Maintain and record equipment calibrations.
- .Interpret and evaluate all results.
- .Carries out routine equipment maintenance under the direction of his/her supervisor.
- .Maintains a clean working environment.
- .Follow all company health, safety and environmental policies.
- .May be asked to work in other areas of the Geochemistry laboratory sections when required.
- .May be assigned and coordinate special or ad hoc projects as needed.

Reporting To

- .Department Supervisor
- .This position works under general direction

Skills

- .A minimum of a high school diploma (or equivalent) is required.
- .A post secondary education (degree and/or diploma) in a Science related program (Chemistry, Chemical Engineering) is a strong asset.
- .A minimum of 1 - 3 years of experience in a laboratory setting is a strong asset.
- .Previous experience using a variety of geochemical instrumentation is a strong asset.
- .Good hand/eye coordination when handling samples & lab equipment.
- .Must use good judgment to identify and resolve problems on the job. When in difficulty refer problems to his/her supervisor for resolution.
- .Intermediate level of creativity required in solving routine problems.
- .Must be comfortable with numerals in order to monitor data on a computer screen.
- .Must be able to read, understand and follow work instructions in a safe, accurate and timely manner.
- .Able to work well under pressure during high (peak) work loads and balancing conflicting demands of high volume versus the quality of results.
- .Candidates must be proficient in using various type of computer software (Word, Excel, etc.).
- .Proven ability to manage and coordinate multiple projects in a fast-paced, highly professional environment.
- .Demonstrates excellent verbal and written communication skills including grammar and composition.
- .Ability to work well with others & independently.
- .Proven time management skills and a strong attention to detail.
- .Works well under pressure.
- .Extended hours and shiftwork may be required from time to time.
- .Travel to other SGS locations may be required from time to time.
- .Ensures full compliance with the company's Health & Safety, Code of Integrity, and Professional Conduct policies.

Key Research Findings

Additional information

For candidates who meet these pre-requisites, SGS offers a stimulating professional environment and a very competitive compensation package.

Please note that candidates applying for Canadian job openings must be authorized to work in Canada.

SGS is the World's Leading Inspection, Testing, Verification & Certification Company.