

# LABORATORY TECHNOLOGY (ANALYTICAL CHEMISTRY)



210.AO

3 YEARS

[www.dawsoncollege.qc.ca/laboratory-technology](http://www.dawsoncollege.qc.ca/laboratory-technology)

## If you would like to:

- ☐ Learn in a modern, hands-on laboratory setting using the latest technology and specialized computer software
- ☐ Perform chemical and biochemical analyses with advanced instrumental methods
- ☐ Carry out physicochemical measurements and microbiological testing
- ☐ Learn to collect, analyze and interpret scientific data and reports
- ☐ Help create products that are available in the marketplace

**Then the Laboratory Technology (Analytical Chemistry) Program could be for you.**



**The laboratories are very well equipped. The teachers and staff are amazing, and the program is very closely connected to the industry which includes remunerated internships.**

— Carl B.

The Laboratory Technology (Analytical Chemistry) Program will prepare you to work in fields such as pharmaceuticals, cosmetics, environmental testing, oil testing, quality control, government and teaching labs among others. You will study in an engaging laboratory environment with teachers who can deliver one-on-one instruction. You will participate in internships as part of the program. You may also qualify for paid internships that alternate with your studies (called a Work-Study Option or *Alternance Travail-Études*) and accumulate up to six months of industrial work experience prior to graduation.

## What will you learn?

- To use conventional and modern instrumental methods in analytical chemistry
- To apply key principles of quality assurance systems in a chemical laboratory
- To collect and prepare analytical samples and standard chemical solutions
- To use chromatographs, auto-analyzers, spectrophotometers and other instruments
- To test for harmful micro-organisms found in industrial samples

### Where will this program lead you?

Graduates of the Laboratory Technology (Analytical Chemistry) Program often pursue careers as laboratory analysts, chemical research technologists, quality control technicians, biochemistry technologists or chemical engineering technologists. These sectors have a high demand for graduates of the program.

Other graduates choose to continue their studies at the university level in Chemistry. In this case, some of your Dawson courses may be credited.

### What do you need to apply?

- A Diploma of Secondary Studies (DES) or academic background judged equivalent to the DES
- Sec V Mathematics - Technical & Scientific option or Science option 564-506 or 565-506
- Sec V Chemistry 551-504

### What else should you know?

As a student in this program, you will have access to industry-level chemistry labs located in a renovated area of the college.

The program offers courses in active learning classrooms, spaces in which students can share and engage using interactive boards in small groups.

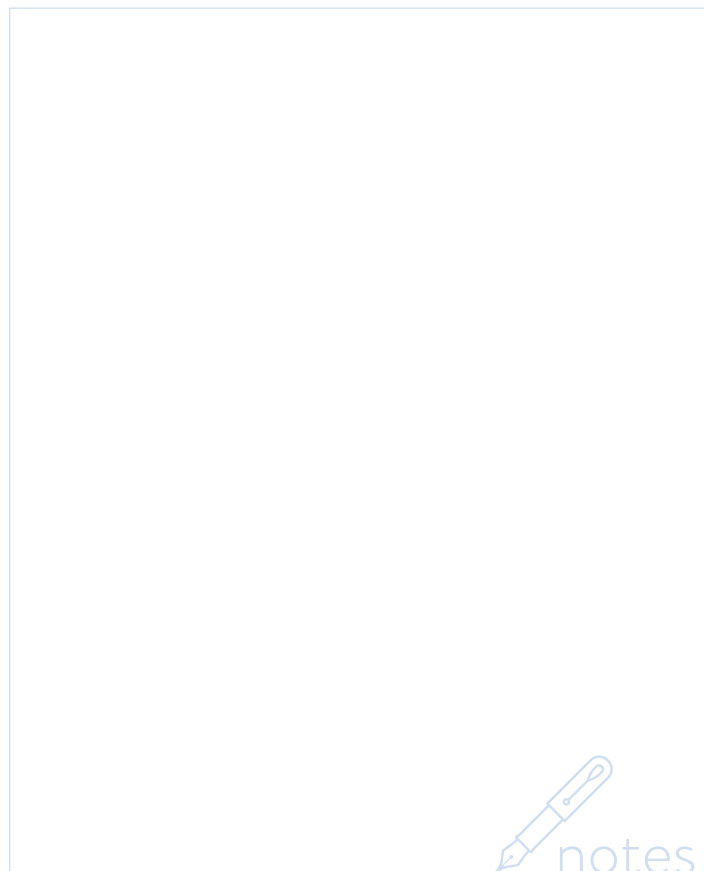
### Application Deadline

March 1

### DID YOU KNOW?

Students entering this program are eligible for *Bourses Perspective* scholarships. These \$1,500 scholarships will be awarded to students after each successful full-time term, for a total of \$9,000 for a three-year program.

Information about how to apply can be found online by searching for “Québec Perspective Scholarship Program” in your browser.



### LIST OF SPECIFIC COURSES

All students must also take General Education courses such as English, French, Humanities and Physical Education, in addition to complementary courses.

#### YEAR 1

Term 1
<ul style="list-style-type: none"><li>▪ Applied Mathematics</li><li>▪ Introduction to Statistical Methods</li><li>▪ General Chemistry</li><li>▪ Introduction to Laboratory Technology</li><li>▪ Basic Laboratory Techniques</li></ul>
Term 2
<ul style="list-style-type: none"><li>▪ Calculus I</li><li>▪ Chemistry of Solutions</li><li>▪ Introduction to Analysis Techniques</li><li>▪ Applied Optics</li></ul>

#### YEAR 2

Term 3
<ul style="list-style-type: none"><li>▪ Introduction to Organic Techniques</li><li>▪ Analytical Spectroscopy</li><li>▪ Basic Circuits and Instrumentation</li><li>▪ Samples in Analytical Chemistry</li></ul>
Term 4
<ul style="list-style-type: none"><li>▪ Microbiology I</li><li>▪ Instrumental Separations</li><li>▪ Organic Chemistry</li><li>▪ Internship</li></ul>

#### YEAR 3

Term 5
<ul style="list-style-type: none"><li>▪ Advanced Analytical Techniques</li><li>▪ Electrochemistry</li><li>▪ Organic Analysis</li><li>▪ Physicochemical Measurements</li></ul>
Term 6
<ul style="list-style-type: none"><li>▪ Advanced Analytical Techniques II</li><li>▪ Biomolecules</li><li>▪ Chemical Processes</li><li>▪ Laboratory Technology Project</li></ul>