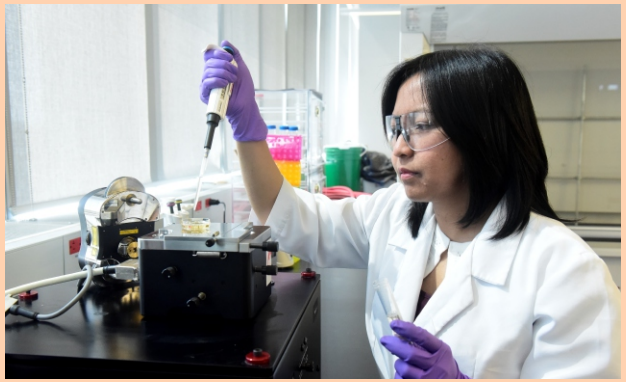
CHEMISTRY SPECIALIST (14 credits) AND MAJOR (8.5 credits)

Chemistry specialist is ideally suited for students who wish to pursue graduate studies in chemistry or a related discipline, or to work in chemistry-related industries. It offers a deep theoretical and practical learning experience in all aspects of modern chemistry. The first year of the program emphasizes learning fundamentals across various disciplines, including biology, chemistry, physics, and math. In upper years, this knowledge is applied to specialized courses focussing on the sub-disciplines of chemistry, including organic, inorganic, analytical, physical, and environmental chemistry. Students in this program will have the opportunity to contribute to the creation of scientific knowledge by participating in a directed research project in their fourth year.

Chemistry major is intended for students who are interested in chemistry, but who do not wish to complete the more focused specialist program. It provides an introduction to all major chemistry sub-disciplines within chemistry, including analytical, biological, inorganic, organic, and physical chemistry. The program develops both theoretical knowledge and practical lab skills throughout their course work.

BIOCHEMISTRY MAJOR (9 credits)

The biochemistry major is intended for students who are interested in biochemistry, but who do not wish to complete the more focused specialist in biological chemistry. It is also excellent preparation for students wishing to pursue professional schools such as a medicine, pharmacy or law.
The program explores the chemistry of living systems. The first two years are composed of core courses in both biology and chemistry. In later years, the disciplines are merged through courses which explore the chemistry of proteins, enzymes and metabolism.



ENVIRONMENTAL CHEMISTRY SPECIALIST (16 credits) AND MAJOR (9 credits)

Graduates from both programs will be well qualified for positions in government and industry as well as several graduate programs. The specialist program provides an in depth study of chemistry, with a focus on solving environmental problems. The first year emphasizes fundamentals across various disciplines - biology, chemistry, physics, math and environmental science. Upper years develop skills in different areas of chemistry and bring specialized courses in environmental chemistry. The fourth year provides the opportunity to contribute to the creation of scientific knowledge by participating in a directed research project. The major program will introduce students to the main areas of chemistry, an emphasis on analytical, environmental, inorganic, and organic chemistry, and also ensure students gain foundational knowledge of the environmental sciences.

MEDICINAL & BIOLOGICAL CHEMISTRY SPECIALIST (14.5–15 credits)

The combination of course work and research experience makes this program ideally suited for students who wish to pursue graduate studies in medicinal, biological chemistry or a related discipline, or to work in biologically chemistry-related industries. It is also excellent preparation for students wishing to pursue professional schools such as medicine, pharmacy or law.
The program is intended for students who want to specialize in chemistry, and in particular, its applications to and interactions with living systems. The first year provides fundamentals across various disciplines - biology, chemistry, physics, and math. The second year brings courses in chemistry and biology, merging the two in more specialized courses later and complex chemistry of living systems (proteins, enzymes and metabolism). Students will also learn how chemistry can be used to study and manipulate these systems through courses in pharmaceutical and biological chemistry. In their fourth year, students will have the opportunity to contribute to the creation of scientific knowledge in this field by participating in a directed research project.

Our chemistry programs:

Chemistry Specialist
Chemistry Major
Biochemistry Major
Medicinal and Biological Chemistry Specialist
Environmental Chemistry Specialist
Environmental Chemistry Major

And all have co-op option available!

Want a job straight out of school? Here is just a few of jobs our chemistry graduates have:

Quality Analyst · Scientific Affairs Liaison· Manufacturing Sales Representative · Drug Safety Assessor · Government Scientific Analyst/Regulator · Environmental Scientist in Engineering· Product Manager Medical Supplies ·Environmental Technician in Energy Production · Technical Marketing Associate in Chemicals ·Product development ·Environmental Assessment Analyst ·Environmental Auditor · Development Scientist for the Federal Government · Research Associate in Universities·Environmental Health & Safety Coordinator·Quality Assurance in Manufacturing ·Analytical Specialist in Engineering Consulting· etc, etc...

Want to continue further study? Here is just a few options for our graduates (more inside!):

Combined programs (with Master of Engineering, Master of Environmental Science and Master of Teaching)
· Professional schools (medicine, pharmacy, dentistry, law, engineering...)
· Graduate school (masters, PhD, technology, education...)

DEPARTMENT OF PHYSICAL & ENVIRONMENTAL SCIENCES

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University of Toronto Scarborough
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Ontario Canada M1C 1A4

Did you know?

All of our specialist programs in chemistry have Canadian Society for Chemistry (CSC) Accreditation!

They meet the national standards of education required by the CSC, ensuring that graduating students possess skills in both the core chemical concepts and practical laboratory skills that are necessary to thrive in today's workforce. Graduates of these programs will receive a certificate stating that they have completed a nationally accredited chemistry program.

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