get the most out of your CHY / CLP

UNIVERSITÉ YORK UNIVERSITY

Make the connection

seneca@chem.yorku.ca

York and Seneca are more than just good neighbours.
With a Chemical Engineering Technology (CHY) diploma or a Chemical Laboratory Technology - Pharmaceutical (CLP) diploma from Seneca College, you're well on your way to a York degree. You can earn a Bachelor of Science degree in Chemistry or any one of the many Honours degrees in Chemistry is less time at one of the best and friendliest Chemistry departments in the country. Full details and fine print are overleaf.

degrees@york

Quality. *York's Chemistry department is small enough to offer a personalized education with small classes and very accessible personnel, but big enough to have the best in library and technical resources, expertise in all sub-disciplines and a rich diversity of programs. York's faculty members are internationally recognized, holders of major research grants and winners of prestigious awards. Of all the Chemistry departments in the country, York's research output has been rated as having the greatest impact on a world-wide scale.*

Flexibility. *York offers a wide array of degrees involving Chemistry at several depths. There are the Three-year Bachelor of Science and the Four-Year Specialized Honours degrees in Chemistry, the latter being nationally accredited by the* Canadian Society for Chemistry. *There are also nine different Honours Double Major degrees in Chemistry in combination with another Science, and nearly 40 Honours Major/Minor degree combinations with Chemistry as the Major subject or the Minor subject. All degree types differ in the number of credits in Chemistry and in other areas. One of these is sure to satisfy your inclination and all have been crafted to give a solid education with a solid future.*

Innovative Programs. *York Chemistry always looks to the future and constantly renews its programs. Since 2003, we are pleased to offer a new* **Pharmaceutical & Biological Chemistry Stream** *of the Specialized Honours degree, and a new* **Specialized Honours degree in Biochemistry** *in collaboration with the Department of Biology. We also offer two options within the regular degrees: Students can obtain a Specialized Honours BSc degree and optionally focus on* **Materials Chemistry** *or* **Analytical Chemistry**. *The three-year BSc degree can also be obtained with a focus on Analytical Chemistry. All give excellent grounding in Chemistry plus specialized explorations of topics at the cutting edge of the field.*

Innovative Courses. *To support our innovations in degree programs, several new courses have been created in recent years, in Polymer Chemistry, in Pharmaceutical Discovery, in Bioanalytical Chemistry, in Biological Chemistry, in Electrochemistry and in Materials Chemistry. All are offered as part of the new programs, but they can be taken for credit as part of any Chemistry degree. As well, York Chemistry is continually upgrading its existing courses to better meet the needs of today's students in preparation for the challenges of a changing world.*

Value. *Two diplomas are better than one and the York-Seneca connection lets you get two in less time and for less money.*

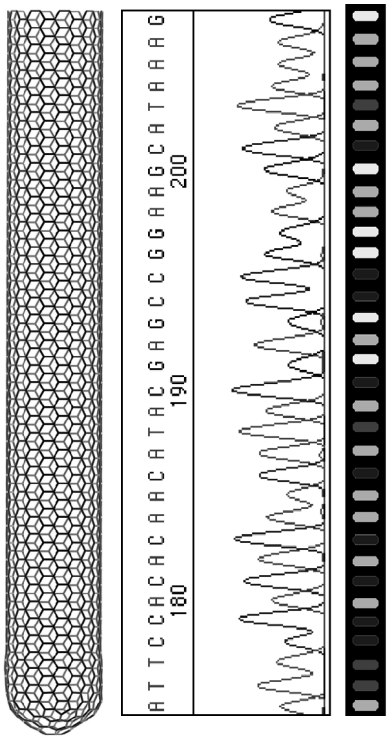
Who is this for?

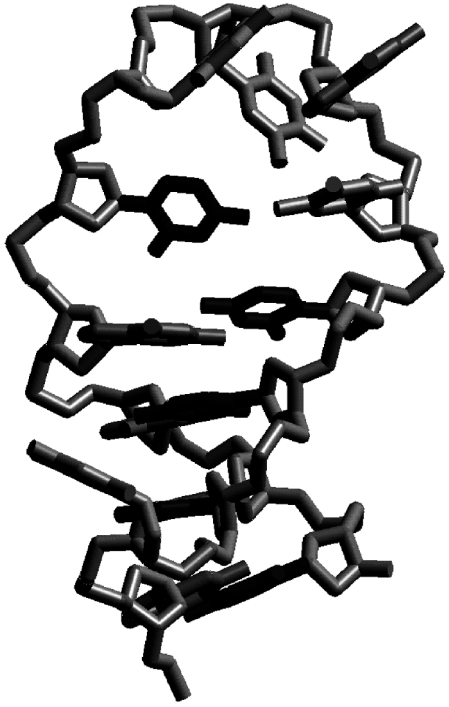
A university degree in Chemistry will appeal to Seneca students with a curiosity to know more about the stuff of which things are made, about how that stuff behaves, why it behaves as it does, how we can discover these properties and how we can take advantage of them. A degree in Chemistry will satisfy students with interests in any sub-discipline. A degree is for those who like to make things, who like to tinker with instruments, who may have a facility with computers, or for those who like the solving part of solving problems, those who simply enjoy learning as a hobby or who derive intellectual satisfaction by discovering more about the world and the universe around them.

Seneca + York → $uccess

What does it get me?

A Bachelor's degree lets you visit all four major sub-disciplines and gives you a solid foundation. An Honours degree will allow you to focus on the areas you prefer. If you wish, you can explore one of the multi-disciplinary areas like organometallics, atmospheric chemistry, biological chemistry, bioanalytical chemistry, materials chemistry or polymers. An Honours degree will also give you a taste of research and opens the door to graduate studies and wider opportunities in the work force.
Two diplomas **are** *better than one. Your Seneca diploma and a York degree are a combination that's tough to beat and give you a strong edge that opens the door to excellent job opportunities.*





The three graphic elements in this composite image symbolize the three new areas of special focus in the undergraduate Chemistry programs. At FAR LEFT is a picture of a **nanotube,** *literally a tube of nanometer proportions consisting of a single molecule made of a single element, carbon. At once an elongated version of a buckyball and a self-closing layer of graphite, this and other nanotubes of various dimensions exemplify the new generations of materials studied at the frontier of* **Materials Chemistry**. *At FAR RIGHT is a model of a 'hairpin' loop sequence of the primer binding site from the human immunodeficiency virus (HIV-1), the virus that causes AIDS. Its structure was determied by state-of-the-art NMR spectroscopic techniques used in Prof. Johnson's lab. Sophisticated instrumentation put to solving the complex structural problems of biology and medicine are part of the new cross-disciplinary approaches in* **Biological Chemistry**. *In the MIDDLE is a composite plot of the type used to deduce the base sequence of a strand of DNA in modern molecular biology. The technique, used in Prof. Krylov's lab, employs non-radioactive 'tagging' and sensitive fluorescence detection of the bands appearing in a single lane of an electrophoresis gel. The development of new methodology and technology that separates, identifies and quantifies ever-smaller amounts of materials of all origins, including biological materials, is the realm of* **Analytical Chemistry**.

What you'll get credit for & what you'll need for a BSc degree

✖ *You may not need this* ✓ *You will need this*

Course Number & credit value	CHY	CLP
SC/CHEM 1000 3.0	✖	✖
SC/CHEM 1001 3.0 ★	✖	✓
SC/PHYS 1410 6.0 §★	✓	✓
SC/CSE 1520 3.0 †*	✖	✖
SC/MATH 1013 3.0 ¥★	✓	✓
SC/MATH 1014 3.0 ★	✓	✓
a further 3 MATH credits ‡	✓	✓
SC/BIOL 1010 6.0 *	✖	✖
General Education 12 credits *	✖	✖
SC/CHEM 2010 3.0	✓	✓
SC/CHEM 2011 3.0	✓	✓
SC/CHEM 2020 6.0	✖	✖
SC/CHEM 2030 3.0 *	✖	✓
SC/CHEM 2080 4.0	✖	✖
SC/CHEM 3080 4.0 *	✖	✖
SC/CHEM 3090 3.0	✖	
other 3000-level CHEM credits	14	17
SC/BC 3030 3.0 *	✖	✖
additional elective credits to achieve required totals	✓	✓

This information reflects requirements for a BSc degree. Other degrees will have many of the same but also other requirements; consult the departmental handbook for full details.

§ Or SC/PHYS 1010 6.0 with SC/MATH 1025 3.0 or equivalent as co-requisite

★ *Currently also offered in the summer term; summer offerings vary from year to year.*

† *Or other 1000-level SC/CSE courses, including several also offered in the summer; consult the departmental handbook for details*

¥ *The Seneca courses MTH 173 and 273 are acceptable pre-requisites for this course*

‡ *Consult the departmental handbook for available choices, some of which are also offered in the summer; this requirement will be met if SC/PHYS 1010 is chosen with SC/MATH 1025 or equivalent as co-requisite.*

* *With suitable Seneca courses (see* **The Fine Print**)

What you need to do

(1) Contact or go to the York Admissions Office to apply for admission. At the same time, this will trigger the process of gaining Transfer Credits for your Seneca courses. Visit **www.yorku.ca/admissions** *for what documents you'll need to supply (usually a Seneca transcript), fees, scholarships and other information. You can even apply for admission on-line. The Admissions Office is located in the new Student Services Centre. Telephone 416-736-5000. Fax 416-736-5536. Campus visits are also arranged through this office.*

(2) Contact the Chemistry Department. We will give you a handbook, help you select a program and courses. The main office is in room 124 of the Chemistry Building (CB) and is open 10-12 and 2-4 Mon-Fri. Tel. 416-736-5246. Fax. 736-5936. You can also visit **www.chem.yorku.ca** *for all program, course & faculty information, or contact us by e-mail at* **chemasst@yorku.ca**. *If you prefer to write, out street address is 4700 Keele Street, Toronto, ON, M3J 1P3.*

The Fine Print

Seneca CHY and CLP graduates need a minimum B+ average in science/technology courses to have them qualify for York credit. They will be awarded 45 transfer credits, including up to 24 credits in SC/CHEM courses, for which they are then exempted in pursuit of a York degree. Seneca graduates can get exemptions for SC/CHEM 1000 3.0, 1001 3.0, 2020 6.0 and 2080 4.0. As well, CHY graduates may be exempted from SC/CHEM 2030 3.0, and both CHY and CLP graduates may be exempted from SC/CHEM 3080 4.0, provided they have taken the appropriate Seneca courses. As well, students having completed BIO 173 and 273 at Seneca receive an exemption for SC/BIOL 1010 6.0, and those with CPG 373 or 433 at Seneca receive an exemption for SC/CSE 1520 3.0. Both CHY and CLP graduates should note that the Seneca courses MTH 173 and 273 are acceptable prerequisites for SC/MATH 1013 3.0 which, along with its successor course SC/MATH 1014 3.0, is required in all York Chemistry programs and is prerequisite for SC/CHEM 2010 3.0 and SC/CHEM 2011 3.0, which in turn are required for most degrees in Chemistry and are prerequisite for several third-year courses. Finally, Seneca graduates may be able to obtain Transfer Credits (equivalence) in 12 General Education credits, required in all programs, for Seneca courses outside the major subject area,and for 3 elective credits in Technical Writing (the decision to award Transfer Credits in these rests with the individual departments concerned and will depend on which Seneca electives were taken). Your enrolment will initiate the process of obtaining Transfer Credits. A three-year BSc degree requires a minimum total of 90 credits, of which at least 66 must be SC credits. A four-year Honours BSc degree requires a minimum 120 credits, including 90 SC credits. Other requirements apply. The time neededfor completion of a York degree will there-fore depend on which degree is pursued, what courses will be exempted, which prerequisites need to be taken, and the course load (a 15-credit load per term is average). Part-time studies and reduced course loads will necessitate more time. Seneca students joining a Chemistry program at York should consult a departmental advisor about their exemptions and course scheduling.