CHEMISTRY HONOURS

Science Profile (120 extended credit programs, i.e. non-CEGEP entry, only)

Chemistry:	CHEM 205 & 206 (General Chemistry I & II)
Biology:	BIOL 201 (General Biology)
Math:	MATH 201 (Elementary Functions), MATH 202 (College Algebra, *required for Mature Students only*), MATH 203 (Calculus I), MATH 205 (Calculus II)
Physics:	PHYS 204/224 (Mechanics and associated lab course), PHYS 205/225 (Electricity & Magnetism and associated lab course), PHYS 206/226 (Waves and Modern Physics & associated lab course)

Core program (45 credits = 15 courses)

Analytical Chemistry:	CHEM 217 (Introductory Analytical Chemistry I, offered Fall only) CHEM 218 (Introductory Analytical Chemistry II, offered Winter only) CHEM 312 (Intermediate Analytical Chemistry, offered Fall and even-year Summers) *Exemptions for 217 AND 218 PLUS THE LAB PORTION OF 312 possible for students entering from Dawson's Laboratory Technology – Analytical Chemistry program*
Organic Chemistry:	CHEM 221 (Introductory Organic Chemistry I, offered Fall, Winter and alternating Summers) CHEM 222 (Introductory Organic Chemistry II, offered Fall and Winter) CHEM 324 (Organic Reactions, offered Fall only) CHEM 325 (Organic Structure and Stereochemistry, offered Winter and odd-year Summers) *Exemptions for CHEM 221 and CHEM 222 possible for CEGEP students*
Physical Chemistry:	CHEM 234 (thermodynamics, offered Fall and Winter) CHEM 235 (kinetics, offered Fall and Winter) CHEM 333 (quantum chemistry, offered Winter only)
Inorganic Chemistry:	CHEM 241 (Introduction to Periodicity and Valence Theory, offered Fall and Winter) CHEM 242 (Chemistry of the Main Group Elements, offered Winter only) CHEM 341 (Transition metals, offered Fall only)
Biochemistry:	CHEM 271 (Biochemistry I, offered Fall, Winter and alternating Summers)
Spectroscopy:	CHEM 293 (Organic Spectroscopy, offered every term)

Chemistry Honours = core (above) PLUS additional credits at the advanced level

Spectroscopy:	CHEM 495 (Modern Spectroscopy, winter only)
Chemistry electives:	2 x 400-level courses (CHEM 4XX) chosen form advanced topics courses in chemistry
Research project:	CHEM 450 (6 credits, Honours research carried out in an active research lab of one of our faculty members, 1 or 2 terms, all terms available, written thesis defended before a committee)

Course numbering system

First digit gives level	200 = introductory 300 = intermediate 400 = advanced
Middle digit denotes discipline	1 = analytical, 2 = organic, 3 = physical, 4 = inorganic, 5 = multidisciplinary, 7 = biochemistry, 9 = spectroscopy/spectrometry
Last digit gives sequence	

CHEMISTRY HONOURS

Typical Chemistry Honours Sequence*

– entering with CHEM 221 from CEGEP

	Fall	Winter
Year 1	CHEM 217	CHEM 218
	CHEM 222	CHEM 293
	CHEM 234	CHEM 235
	CHEM 241	CHEM 242
	elective	elective
Year 2	CHEM 312	CHEM 271
	CHEM 324	CHEM 325
	CHEM 341	CHEM 333
	elective	organic replacement
	elective	elective
Year 3	CHEM 4XX	CHEM 4XX
	CHEM 450**	CHEM 450**
	CHEM 495	elective
	elective	elective
	elective	elective

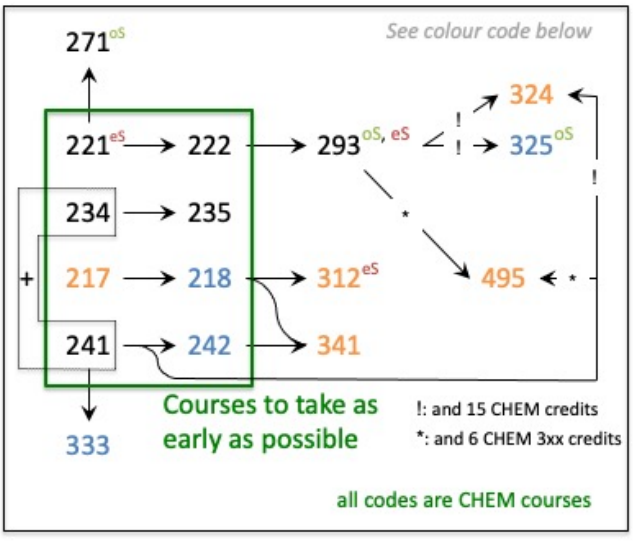
– entering from profile year

	Fall	Winter
Year 1	CHEM 217	CHEM 218
	CHEM 221	CHEM 222
	CHEM 234	CHEM 235
	CHEM 241	CHEM 242
	elective	elective
Year 2	CHEM 271	CHEM 293
	CHEM 312	CHEM 325
	CHEM 341	CHEM 333
	elective	CHEM 271
	elective	elective
Year 3	CHEM 324	CHEM 4XX
	CHEM 450**	CHEM 450**
	CHEM 4XX	elective
	CHEM 495	elective
	elective	elective

* All courses are 3 credits except where noted. There are thirty (30) credits of electives (to be taken at any time) that must include six credits of general education courses and fifteen credits of out of program electives. The remainder may be freely chosen (chemistry, other science or non-science). Note: some courses can be taken in Summer or online.

** CHEM 450 is a 6-credit course that is offered each term, including Summer. However, we recommend taking it over two terms. If taken over Fall and Winter, it counts as 3 credits in the Fall and 3 credits in the Winter.

Chemistry Specialization/Honours Course Flowchart



Legend: 221 —(is a prerequisite for:)→ 222

Additional courses:

- 4XX (2x) (Fall & Winter only)
- 419/450 (6 credits)
- Organic replacement(s) if exempt from 221 &/or 222
- 10 electives

Summer course offerings:

oS (ODD years)	alternating with	eS (EVEN years)
271		221
293		293
375		375
325	⇢	312

Tentative Schedule

Terms when courses are traditionally offered:

- Fall & Winter — and sometimes on:
- Fall only
  - oS: Summer ODD years
- Winter only
  - eS: Summer EVEN years

Up-to-date info on Class Schedule Guide & Dept website