

CHEMISTRY, B.SC. MAJOR

Degree Requirements

Four Year Major (Including Co-operative Option if Selected)^{1,2}

Course	Title	Hours
Year 1		
CHEM 1100	Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110	Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties (C+)	3
CHEM 1120	Introduction to Chemistry Techniques ³	3
PHYS 1020 or PHYS 1050	General Physics 1 or Physics 1: Mechanics	3
PHYS 1030 or PHYS 1070	General Physics 2 or Physics 2: Waves and Modern Physics	3
MATH 1500	Introduction to Calculus ⁴	3
MATH 1700	Calculus 2 ⁴	3
6 credit hours from the Faculty of Arts, which should include the required "W" course		6
3 credit hours of electives ²		3
Hours		30
Year 2		
CHEM 2100	Organic Chemistry 1: Foundations of Organic Chemistry	3
CHEM 2110	Organic Chemistry 2: Foundations of Organic Synthesis	3
CHEM 2122	Experimental Organic Chemistry	3
CHEM 2300	Inorganic Chemistry 1: Structure and Applications	3
CHEM 2510	Introduction to Analytical Chemistry	3
CHEM 2520	Introduction to Analytical Chemistry Techniques	2
CHEM 2600	Physical Chemistry 1	3
CHEM 2720	Principles and Practices of the Modern Biochemistry Laboratory	3
6 credit hours of electives ²		6
Hours		29
Year 3		
CHEM 3100	Organic Chemistry 3: Advanced Organic Synthesis	3
CHEM 3120	Advanced Organic Chemistry Laboratory Techniques	2
CHEM 3300	Inorganic Chemistry 2: Reactivity and Properties	3
CHEM 3320	Inorganic Chemistry Laboratory	2
CHEM 3500	Instrumental Analysis	3
CHEM 3520	Instrumental Analysis Laboratory	2
CHEM 3600	Physical Chemistry 2	3
CHEM 3620	Physical Chemistry Laboratory	2
CHEM 3820	Integrated Chemistry Laboratory 1	2
CHEM 3840	Integrated Chemistry Laboratory 2	3

6 credit hours of electives² 6**Work Terms (if Co-op selected):**

SCI 3980	Co-operative Education Work Term 1	0
SCI 3990	Co-operative Education Work Term 2	0

Hours 31**Year 4**

CHEM 4610 Advanced Chemical Techniques 6

6 credit hours of Chemistry courses at the 4000 level 6

18 credit hours of electives² 18**Work Terms (if Co-op selected):**

SCI 4980	Co-operative Education Work Term 3	0
SCI 4990	Co-operative Education Work Term 4 (if a 4th work term is selected)	0

Hours 30**Total Hours** 120

¹ IMPORTANT: The four-year Major program need not be completed in the manner prescribed in the grid above. The grid indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.

² CHEM 1018, CHEM 2523, and CHEM 3331 may not count towards the 120 credit hours required for this degree.

³ CHEM 1122 and CHEM 1126 may be used in lieu of CHEM 1120. Note: CHEM 1122 is only available to Price Faculty of Engineering students.

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- MATH 1230, MATH 1510 or MATH 1520 may be taken in place of MATH 1500;
- MATH 1232 or MATH 1710 may be taken in place of MATH 1700;
- MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

(Letters in brackets indicate minimum prerequisite standing for further study.)