Honours Biochemistry (Pharmacy Stream)
Fall 2025 Academic Calendars

Degree Requirements: Total courses: forty courses containing the maximum of 14 courses at 1xxx level and at least 26 courses at 2xxx, 3xxx and 4xxx)

(a) Major requirements (20 courses)

CHEM-1100 Gen Chemistry I	**CHEM-1110** Gen Chemistry II	**CHEM-2200** Analytical Chem	**CHEM-2300** Intro Organic Chem	**CHEM-2310** Intro Organic Chem II
BIOC-2010 Organic Chem of Biomolecules	**CHEM-2400** Intro Physical Chem I	**CHEM-2410** Intro Physical Chem II	**CHEM-2500** Intro Inorganic Chem I	**CHEM-2510** Intro Inorganic Chem II
CHEM-3210 Principles of Instrumental Analysis	**BIOC-3100** Metabolism I	**BIOC-3110** Metabolism II	**BIOC-3581** (6-credit, 2 semester course) Biotechnology Laboratory	
BIOC-3130 Protein and Nucleic Acid Chemistry	**BIOC-3310** Pharmacology	**BIOC-4050** Drug Design	**CHEM/BIOC** 3XXX or 4XXX	**CHEM/BIOC** 3XXX or 4XXX

Students in Honours **with thesis program** will take **CHEM-4900** (6-credit, 2-semester course) in place of **two** CHEM-4XXX.

Please consult Academic Calendars for BIOC 3XXX and 4XXX courses.

Other requirements
(b) Ten (10) courses from Science

BIOL-1101 Cell Biology	**BIOL-1111** Biological Diversity	**BIOL-2111** Genetics	**BIOL-2071** Intro Micro & Tech	**BIOM-2131** Intro Molecular Biology
MATH-1720 Differential Calculus or **MATH-1760** Functions and Differential Calculus	**MATH-1730** Integral Calculus	**PHYS-1400** Introductory Physics I	**PHYS-1410** Introductory Physics II	**STAT-2910** Statistics for the Sciences

(c) Four (4) courses from Arts, Languages or Social Sciences.

ENGL-1010 Academic writing			

and three courses from Arts, Languages or Social Sciences. At least one must be selected from this list: GART/SOSC-1210, HIST-2460, HIST-2470, POLS-2000, POLS3000, POLS-4000, ENGL-2320, PHIL-1350, PHIL-2300, PHIL-4260, POLS-2010

(d) Six (6) courses from any area of study.

Biochemistry (Pharmacy Stream): suggested course sequence. See an academic advisor to discuss your most optimal course sequence.

Requirements: 40 courses (maximum of 14 courses at 1xxx level and at least 26 courses at 2xxx, 3xxx and 4xxx)

	Fall semester	**Winter semester**
Year 1	**CHEM-1100** General Chemistry I (**Lab**)	**CHEM-1110** General Chemistry II (**Lab**)
	BIOL-1101 Cell Biology (**Lab**)	**BIOL-1111** Biological diversity (**Lab**)
	MATH-1720 Differential Calculus, or **MATH-1760** Functions and Differential Calculus	**MATH-1730** Integral Calculus
	****PHYS-1400** Intro Physics I (**Lab**)	**PHYS-1410** Intro Physics II (**Lab**)
		*** **STAT-2910** Statistics
(*, § for fast track), ***		
Year 2	***CHEM-2300** Intro Organic Chemistry I (**Lab**)	§**BIOC-2010** Organic Chemistry Biomolecules (**Lab**)
	BIOL-2111 Genetics (**lab**)	**BIOM-2131** Intro Mol Biol (**Lab**)
	CHEM-2200 Analytical Chemistry (**Lab**)	**CHEM-2310** Intro Organic Chemistry II
	CHEM-2500 Intro Inorganic Chemistry I (tutor)	**CHEM-2510** Intro Inorganic Chemistry II (**lab**)
*, §, ***		
Year 3	**CHEM-2400** Intro Physical Chemistry I (**Lab**)	**CHEM-2410** Intro Physical Chemistry II (**lab**)
	BIOC-3100 Metabolism I	**BIOC-3110** Metabolism II
	BIOC-3581 Biotechnology **Lab**	**BIOC-3581** Biotechnology **Lab**
		BIOL-2071 Microbiology & Tech (**lab**)
		BIOC-3310 Pharmacology
***		
Year 4	**CHEM/BIOC** 3XXX or 4XXX	**CHEM/BIOC** 3XXX or 4XXX
		CHEM-3210 Instrumental analysis (**lab**)
		BIOC-3130 Protein & Nucleic Acid
		BIOC-4050 Drug Design

Depending on suitability and students' preference, these courses can be taken in appropriate semesters.

***CHEM-2300** Intro Organic Chemistry I (**Lab**) (offered in fall and intersession)	§**BIOC-2010** Organic Chemistry Biomolecules (Lab) (offered winter and summer)
** **PHYS-1400** Intro Physics I (**Lab**) (offered in fall and winter)	*** **STAT-2910** Statistics (offered in fall, winter and summer)

Four (4) FAHSS courses **List: ENGL 1010,**
Seven (6) elective courses **List:**