BRANDON UNIVERSITY

Name:_____ **Student Number:**_____ **Minor:**_____

4-Year Chemistry Degree Requirements

Core Requirement		**Cr Hrs 9**	Year1	Year2	Year3	Year4	Year5
18:160	General Chemistry I	3					
18:170	General Chemistry II	3					
18:251	Introduction to Group Theory and its Application in Chemistry	3					
Organic Requirement		**6**					
18:261	Organic Chemistry I: Structure and Mechanisms	3					
18:271	Organic Chemistry II: Reactions and Synthesis	3					
Physical Requirement		**6**					
18:260	Classical Physical Chemistry: Thermodynamics and Kinetics	3					
18:270	Classical Physical Chemistry II: Electrochemistry and Kinetics	3					
Analytical and Spectroscopy Requirement		**9**					
18:262	Introductory Analytical Chemistry	3					
18:281	Applied Organic Spectroscopy	3					
18:362	Instrumental Analysis	3					
Inorganic Requirement		**6**					
18:274	Inorganic Chemistry I: Main Group Elements	3					
18:364	Inorganic Chemistry II: Coordination Chemistry	3					
Biochemistry Requirement		**6**					
18:363	Biochemistry I: DNA, RNA, Proteins, and Lipids	3					
18:373	Biochemistry II: Intermediary Metabolism and Human Metabolic Disorders	3					
Plus:	**12 credit hours** of additional Chemistry courses at the **300/ 400** level, of which **6** must be at the **400** level	**12**					
18:351	Inorganic Spectroscopic and Structural Methods	3					
18:352	Nucleic Acids Biochemistry	3					
18:360	Advanced Physical Chemistry: Quantum Mechanics and Spectroscopy	3					
18:361	Advanced Organic Chemistry	3					
18:387	Statistical and Thermal Physics	3					
18:388	Quantum Mechanics I	3					
18:399	Topics in Chemistry	3					
18:451	Environmental Chemistry	3					
18:452	Biological Inorganic Chemistry	3					
18:453	Neurochemistry of Therapeutics	3					
18:455	Mass Spectrometry-Based Proteomics	3					
18:471	Natural Product Synthesis	3					
18:474	Inorganic III: Organometallic Chemistry	3					
	Must achieve 3.0 GPA for Honours Major requirement **Major Total: 54**						
Plus:	**Ancillary Courses***	**18**					
62:181	Calculus I	3					
62:191	Calculus II	3					
74:151/161	General Physics I or Foundations of Physics I	3					
74:152/162	General Physics II or Foundations of Physics II	3					
Plus:	6 additional credit hours of Mathematics courses	**6**					
		3					
		3					

Department of Chemistry
270 18th Street, Brandon MB, Canada R7A 6A9 204.727.9677 **BrandonU.ca**

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Additional Degree Requirements

			Year1	Year2	Year3	Year4	Year5
Plus:	**Minor Requirement***	**18**					
		3					
		3					
		3					
		3					
		3					
		3					
	Must achieve 2.0 GPA for Minor requirement						
Plus:	Liberal Education requirement – Humanities (6 credit hours)	**6**					
		3					
		3					
Plus:	Liberal Education requirement – Social Sciences (6 credit hours)	**6**					
		3					
		3					
Plus:	Additional elective credit hours (18 credit hours)**	**18**					
		3					
		3					
		3					
		3					
		3					
		3					
	Must achieve 2.5 GPA for Graduation requirement – Total Credit Hours - 120	**120**					

***** If Mathematics or Physics is the declared Minor the credit hours associated with the "ancillary courses" are counted towards the Minor. Therefore additional elective credit hours will be required to reach the 120 credits hours needed to graduate.

** These credit hours can be additional Chemistry courses if you desire