B.S. in Biology: Pre-Pharmacy - CWILT

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
BIO124/BIO124D Integrative Biology: Genes, Cells,	4	GEC 4504		BIO128/BIO128D Integrative Biology: Metabolism, Energy,	4
Change/Lab		GES 160 Inquiry Seminar	۲.	Biodiversity/Lab	
CHE113/CHE113D General Chemistry I/Lab				CHE214/CHE215 General Chemistry II/Lab	4
or CHE208/208D Accelerated General Chemistry/Lab	4			CHE214/CHE215 General Chemistry II/Lab	4
MAT124M Calculus	4			GES130 Christianity Western Culture	4
GES140 Introduction to Wellbeing	3			PSY100 Introduction to Psychology	3
	15		3		15
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
BIO218 Biology in a Changing World	3	Contemporary Western Life and Thought (L) course	3	CHE226/CHE227 Organic Chemistry II/Lab	4
CHE224/CHE225 Organic Chemistry I/Lab	4			THE201 Christian Theology	3
BIB101 Introduction to the Bible	3			GES125 Introduction to the Creative Arts	4
Leisure and Lifetime Sports (Q) course	1			BIO234/BIO235 Microbiology/Lab	4
Artistic Experience (A) course	0-3				
MAT207M Statistical Analysis or PSY230M Introd. to	3 or 4				
Statistical Methods and Experimental Design					
·	14-18		3		15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
BIO399 Introduction to Research	1	World Cultures (U) course	3	BIO216/BIO217 Human Physiology/Lab	4
BIO214/BIO215 Human Anatomy/Lab	4			Physics II elective	4
Physics I elective	4			Comparative Systems (G) course	3
Science, Technology and Society (K) course	3			Interpreting Biblical Themes (J) course	3
CHE304/CHE305 Essentialsof Biochemistry/Lab	4				
	16		3		14
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
BIO481 Internship in Biology or BIO496 Biology Research	1-3	Interim Off	•	BIO499 Biology Symposium	0
BIO495 Biology Seminar	2			BIO481 Internship in Biology or BIO497 Advanced Biology	1-3
				Research	
Second Language (S) course*1	4			BIO354/BIO355 Cell Biology/Lab	4
Biology environmental area choice	4			BIO396/BIO397 Molecular Biology	4
ECO201 Prinicples of Economics	4			Contemporary Christian Issues (P) course	3
				Cross-Cultural Experience (Z) course	0-3
	15-17		0		12-17
Total Credits 125-136					

^{1.} Students must complete through the second semester of a first-year language course or equivalent.

This program assumes the student will use BIO 124 / BIO 124D to meet the general Laboratory Science requirement.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit falls below 15 credits/semester. (Interim may be split between fall and spring for the state grant purposes only.)

Pre-requisite for most pharmacy school programs
Recommneded courses for pharmacy school programs

B.S. in Biology: Pre-Pharmacy - Humanities

First Year					
Fall Cre	dits	Interim	Credits	Spring	Credits
CHE113/CHE113D General Chemistry I/Lab	4	GES 147 Humanities II: Renaissance and Reformation	Д	BIO128/BIO128D Integrative Biology: Metabolism, Energy,	4
		OLO 117 Transamores in recinalissance and reconniction		Biodiversity/Lab	
BIO124/BIO124D Integrative Biology: Genes, Cells,				CHE214/CHE215 General Chemistry II/Lab	
Change/Lab	4				4
or CHE208/CHE208D Accelerated General Chemistry I/Lab					
GES145 Humanities I: Greco-Roman through Middle Ages	4			GES244 Humanities III: European Enlightenment and	4
				American Culture to 1877	
GES140 Introduction to Wellbeing	3			BIB101 Introduction to the Bible	3
	15		4		15
Second Year					
			Credits		Credits
BIO218 Biology in a Changing World	3	Elective		CHE226/CHE227 Organic Chemistry II/Lab	4
CHE 24/CHE225 Organic Chemistry I/Lab	4			BIO234/BIO235 Microbiology/Lab	4
GES246 Humanities IV: Modern and Contemporary	4			Mathematics area choice	3
Western Culture				1	
Leisure and Lifetime Sports (Q) course	1			Second Language (S) course*1	4
Artistic Experience (A) course	0-3		_		
	2-14		3		15
Third Year					
			Credits		Credits
BIO399 Introduction to Research	1	Comparative Systems (G) course		BIO216/BIO217 Human Physiology/Lab	4
BIO214/BIO215 Human Anatomy/Lab	4		<u>-</u>	Physics II elective	4
Physics I elective	4			Interpreting Biblical Themes (J) course	3
World Cultures (U) course	3			PSY100 Introduction to Psychology	3
CHE304/CHE305 Essentialsof Biochemistry/Lab	4		_		
- 4.0	16		3		14
Fourth Year					
			Credits		Credits
BIO495 Biology Seminar	1-2	Interim Off		BIO499 Biology Symposium	0
BIO481 or 496 Internship in Biology or Biology Research	1-3			BIO481 or 497 Internship in Biology or Advanced Biology Research	1-3
Science, Technology and Society (K) course	3			BIO354/BIO355 Cell Biology/Lab	4
Biology environmental area choice	4			BIO396/BIO397 Molecular Biology	4
Cross-Cultural Experience (Z) course	0-3		-	ECO201 Prinicples of Econonimics	4
Contemporary Chrisitan Issues (P) course	3				
1	2-18		0		13-15
Total Credits 122-132	-		•		

^{1.} Students must complete through the second semester of a first-year language course or equivalent.

This program assumes the student will use BIO 124/BIO 124D to meet the general Laboratory Science requirement.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit falls below 15 credits/semester. (Interim may be split between fall and spring for the state grant

Pre-requisite for most pharmacy school programs
Recommneded courses for pharmacy school programs

Revised: 8.28.2020