

Bachelor of Science in Cell and Molecular Biology 2019-2020 Catalog

Student: _____

ID#: _____

Advisor: _____

DATE: ____/____/____



UNIVERSITY OF
ST. THOMAS

Credit Hour Breakdown	
Hours completed	
Hours in progress	
Core hours needed	
Major hours needed	
(Minor hours needed)	
(Other hours needed)	
Elective hours needed	
TOTAL HOURS (120+)	

Overall Requirements to Graduate

- 120+ semester hours
- Completion of core curriculum
- Completion of a major
- 36 upper division credit hours
- GPA above 2.0
- Major GPA above 2.0
- Minor/Program complete (optional)

Core Curriculum (46 hours)			Complete	Needed
Theology (9 credit hours) Must take in order. (Pre-req: Phil 1311 or 1315/3315)				
<input type="checkbox"/> THEO 1301/3301 Intro to Sacred Scriptures <input type="checkbox"/> THEO 2301/3311 Teachings of the Catholic Church <input type="checkbox"/> THEO 3349 Christ and the Moral Life (Phil 2314 or 2316/3316)	Students with 30-59 transfer hrs: 6-9 hours THEO 6-9 hours PHIL 3 hours Synthesis <i>(18 hours total)</i>	Students with 60+ transfer hrs: 6 hours THEO 6 hours PHIL NO synthesis <i>(12 hours total)</i>		
Philosophy (9 credit hours) Choose one sequence:				
<u>Systematic Sequence (must take in order)</u> <input type="checkbox"/> PHIL 1311 Philosophy of the Human Person <input type="checkbox"/> PHIL 2314 Ethics <input type="checkbox"/> PHIL 3313 Metaphysics	<u>Historical Sequence (must take in order)</u> <input type="checkbox"/> PHIL 1315/3315 Ancient Philosophy <input type="checkbox"/> PHIL 2316/3316 Medieval Philosophy <input type="checkbox"/> PHIL 3317 – Modern Philosophy			
Synthesis Course (3 credit Hours)				
Choose one synthesis course from the Synthesis Course List.				
English (9 credit hours)* Must take in order.				
<input type="checkbox"/> ENGL 1341 The Classical Tradition: Literature & Composition I <input type="checkbox"/> ENGL 1342 The Middle Ages: Literature & Composition II <input type="checkbox"/> ENGL 2312 The Modern World: Literature & Composition III		*Students with transfer credit: 3 transfer credits: <i>Take 1341/1342 (left)</i> 6 transfer credits: <i>Take ENGL 3312 (below)</i> <input type="checkbox"/> ENGL 3312 <i>Perspectives in World Lit.</i>		
History (6 credit hours) Choose one pair of courses:				
<u>World History</u> <input type="checkbox"/> HIST 1335 World Community I <input type="checkbox"/> HIST 1336 World Community II	<u>U.S. History</u> <input type="checkbox"/> HIST 2333 U.S. History to 1877 <input type="checkbox"/> HIST 2334 U.S. History since 1877			
Social and Behavioral Sciences (6 credit hours) Choose one option:				
<u>Social and Behavioral Sciences Option</u> <input type="checkbox"/> Choose two courses from the Social and Behavioral Sciences Core course list.	<u>Social and Behavioral Sciences + Oral Communication Option</u> <input type="checkbox"/> Choose one course from the Social & Behavioral Sciences Core course list. <input type="checkbox"/> Choose one course from the Communication Core Course list.			
Natural Sciences (8-10 credit hours) Choose one option:				
<u>Natural Sciences Option (8 credit hours)</u> <input type="checkbox"/> Choose two lecture/laboratory courses from the Natural Sciences Core course list.	<u>Natural Sciences + Modern and Classical Language Option (10 credit hours)</u> <input type="checkbox"/> Choose one lecture/laboratory course from the Natural Sciences Core course list. <input type="checkbox"/> Choose two sequential courses in a language. Courses must be completed in order		(Included in major)	
Mathematics (3 credit hours)				
<input type="checkbox"/> Choose one course from the Mathematics Core Course list.			(Included in major)	
Fine Arts (3 credit hours)				
<input type="checkbox"/> Choose one course from the Fine Arts Core Course list.				
Freshman Symposium (1 credit hour) Required for all incoming freshmen.				
<input type="checkbox"/> UNIV 1111 Freshman Symposium				

Last updated on August 28, 2019

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Major Requirements (68 credit hours)	Completed	Needed
Biology (32 credit hours)		
<input type="checkbox"/> BIOL 1351/1151 – Introduction to Population Biology and Evolution w/ lab <input type="checkbox"/> BIOL 1352/1152 – Introduction to Cell and Molecular Biology w/ lab <input type="checkbox"/> BIOL 3321/3121 – Genetics w/ Genetics and Molecular Biology lab (BIOL 1351/1151/1352/1152, CHEM 1341/1141/1342/1142) <input type="checkbox"/> BIOL 3333/3133 – Microbiology and laboratory (BIOL 3321) <input type="checkbox"/> BIOL 3351/3151– Molecular Biology/Advanced Molecular Biology laboratory (BIOL 3321/3121, CHEM 2343) <input type="checkbox"/> BIOL 3461 – Cell Biology with laboratory (pre-req BIOL 3321/3121) <input type="checkbox"/> BIOL 4111 – Bioscience Communication I (Capstone) (BIOL 3321, senior standing) <input type="checkbox"/> BIOL 4112 – Bioscience Communication II (Capstone) (BIOL 4111, senior standing) <input type="checkbox"/> BIOL 4332 – Evolution (Capstone) (BIOL 3321, senior standing) <input type="checkbox"/> BIOL 4336 – Cells, Genes and Molecules [Capstone] (BIOL 3321, 3334, 3351)		
Biology Research Methods (3 credit hours)		
<input type="checkbox"/> BIOL 3194 – Introduction to Biological Research (BIOL 1351/1151/1352/1152, CHEM 1341/1141/1342/1142) <input type="checkbox"/> BIOL 4194 – Guided Biological Research (BIOL 3194 and 50 independent lab research hours) <input type="checkbox"/> BIOL 4195 – Biology Senior Thesis (BIOL 4194 and 100 independent lab research hours)		
Additional Courses (9 credit hours) Choose three courses from each of the following. (Pre-req BIOL 3321 Genetics)		
<input type="checkbox"/> BIOL 3339 – Neuroscience <input type="checkbox"/> BIOL 3362 – Cancer Biology <input type="checkbox"/> BIOL 3363 – Internship in Computational Biology <input type="checkbox"/> BIOL 4321 – Nucleic Acids <input type="checkbox"/> BIOL 4449 – Immunology with Lab <input type="checkbox"/> CHEM 4334 – Advanced Biochemistry (BIOL/CHEM 3334)		
Chemistry (16 credit hours) Must take in order:		
<input type="checkbox"/> CHEM 1341/1141 – General Chemistry I and laboratory <input type="checkbox"/> CHEM 1342/1142 – General Chemistry II and laboratory <input type="checkbox"/> CHEM 2343/2143 – Organic Chemistry I and laboratory (BIOL 1351/1151/1352/1152) <input type="checkbox"/> BIOL/CHEM 3334/3134 – Biochemistry and laboratory		
Physics (4 credit hours) Choose one of the following.		
<input type="checkbox"/> PHYS 1331/1111 General Physics I w/ lab <input type="checkbox"/> PHYS 2333/2111 University Physics I w/ lab (MATH 1431)		
Mathematics (4 credit hours)		
<input type="checkbox"/> MATH 3450/1050 Biostatistics I (6 credit hours math or science)		

Electives	Completed	Needed
Electives to reach the 120 hour minimum to graduate (6 hours)		
<i>This major contains 33-41 upper-division (3000 or 4000 level) credit hours. 36 upper-division credit hours are required for graduation. Consider additional upper-division options in the core or electives.</i>		

Totals	Completed	Needed
Total undergraduate hours (120 minimum):		

MINIMUM TOTAL: 120+

****Note:** All biology students must complete a Major Field Test prior to graduation. **