

Bachelor of Science in Cell and Molecular Biology

Student: _____

DATE: ____/____/____

ID#: _____

2021-2022 Catalog

Advisor: _____

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)



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+) | |

| 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: Take 1341/1342 (left) 6 transfer credits: Take ENGL 3312 (below) <input type="checkbox"/> ENGL 3312 Perspectives in World Lit. | | |
| 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) | | | | (Included in major) |
| <input type="checkbox"/> Choose one course from the Mathematics Core Course list. | | | | |
| 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 November 3, 2021

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| Major Requirements (66 credit hours) | Completed | Needed |
|--|-----------|--------|
| Biology (30 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 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 (BIOL 3321) <input type="checkbox"/> BIOL 3362 – Cancer Biology (BIOL 3321) <input type="checkbox"/> BIOL 3345- Physiology (BIOL 1351/1151, 1352/1152) <input type="checkbox"/> BIOL 4321 – Nucleic Acids (BIOL 3321) <input type="checkbox"/> BIOL 4449 – Immunology with Lab (BIOL 3321) <input type="checkbox"/> CHEM 3333/3133 – Organic Chemistry II and laboratory (CHEM 2343/2143) <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 (CHEM 1341/1141) <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 (CHEM 2343/2143) | | |
| 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 Biostatistics I (6 credit hours math or science) | | |
| Electives | Completed | Needed |
| Electives to reach the 120 hour minimum to graduate (8 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. **