

Student: _____

ID#: _____

Advisor: _____

**BS in Chemistry/MS in
Industrial & Process Chemistry**

DATE: ____/____/____

2021-2022 Catalog



UNIVERSITY OF
ST. THOMAS

Overall Requirements to Graduate

- 150 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)

| Credit Hour Breakdown | |
|-----------------------|--|
| Hours completed | |
| Hours in progress | |
| Core hours needed | |
| BS major hours needed | |
| (Minor hours needed) | |
| Elective hours needed | |
| TOTAL UG HOURS (117+) | |
| MSIPC hours completed | |
| MSIPC hours needed | |

| Core Curriculum (46 hours) | | | Complete | Needed |
|--|---|---|----------|---------------------|
| Theology (9 credit hours) Must take in order. (Pre-req: Phil 1311 or 1315/3315) | | Students with 30-59 transfer hrs: 6-9 hours THEO 6-9 hours PHIL 3 hours Synthesis <i>(18 hours total)</i> | | |
| <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) | | | | |
| Philosophy (9 credit hours) Choose one sequence: | | Students with 60+ transfer hrs: 6 hours THEO 6 hours PHIL NO synthesis <i>(12 hours total)</i> | | |
| <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) | | | | (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 | | | | |

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| Major Requirements (63 credit hours) | | Completed | Needed |
|--|---|-----------|--------|
| Chemistry (44 credit hours) | | | |
| <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 (CHEM 1342/1142) <input type="checkbox"/> CHEM 3333/3133 – Organic Chemistry II and Laboratory (CHEM 2343/2143) <input type="checkbox"/> CHEM 3334/3134 – Biochemistry and Laboratory (CHEM 2343/2143) <input type="checkbox"/> CHEM 3343/3143 – Analytical Chemistry and Laboratory (CHEM 1342/1142) <input type="checkbox"/> CHEM 4331/4131 – Advanced Organic Chemistry and Laboratory (CHEM 3333/3133) <input type="checkbox"/> CHEM 4332/4132 – Inorganic Chemistry and Laboratory (CHEM 3333/3133) <input type="checkbox"/> CHEM 4362/4162 – Thermodynamics and Reaction Kinetics Laboratory (CHEM 3333/3133; MATH 1432; PHYS 1332/1112 or PHYS 2334/2112) <input type="checkbox"/> CHEM 4112 – Scientific Communication (Junior/Senior Standing) <input type="checkbox"/> CHEM 4150 – Laboratory Research Methods Choose two courses from the following: <input type="checkbox"/> CHEM 4334 – Advanced Biochemistry (CHEM/BIO 3334) <input type="checkbox"/> CHEM 4344 – Advanced Analytical Techniques (CHEM 3343/3143) <input type="checkbox"/> CHEM 4354 – Environmental Chemistry (CHEM 3333/3133) <input type="checkbox"/> CHEM 4361 – Quantum Chemistry (CHEM 3333/3133; MATH 2343; PHYS 1332/1112 or PHYS 2334/2112) <input type="checkbox"/> CHEM 4364 – Materials Science (CHEM 2343/2143 or PHYS 3337/3137) | | | |
| Mathematics (11 credit hours) Must take in order. | | | |
| <input type="checkbox"/> MATH 1431 – Calculus I <input type="checkbox"/> MATH 1432 – Calculus II <input type="checkbox"/> MATH 2343 – Differential Equations I | | | |
| Physics (8 credit hours) Choose one pair of courses. | | | |
| <input type="checkbox"/> PHYS 1331/1111 – General Physics I w/Lab <input type="checkbox"/> PHYS 1332/1112 – General Physics II w/Lab | <input type="checkbox"/> PHYS 2333/2111 – University Physics I w/Lab <input type="checkbox"/> PHYS 2334/2112 – University Physics II w/Lab | | |

| Electives (8 hours) | | Completed | Needed |
|---|--|-----------|--------|
| Electives to reach a minimum of 117 undergraduate hours (8 credit hours) | | | |

| MSIPC Requirements (33 hours) | | Completed | Needed |
|---|--|-----------|--------|
| Chemistry Courses (21 credit hours) | | | |
| <input type="checkbox"/> CHEM 5301 – Engineering Flow and Heat Exchange <input type="checkbox"/> CHEM 5302 – Chemical Reactors and Separation Processes <input type="checkbox"/> CHEM 5303 – Analysis and Design of Chemical Processes <input type="checkbox"/> CHEM 6301 – Industrial Organic Chemicals <input type="checkbox"/> CHEM 6302 – Industrial Inorganic Chemicals <input type="checkbox"/> CHEM 6303 – Waste Management <input type="checkbox"/> CHEM 6304 – Capstone Project/Internship | | | |
| MBA Courses (12 credit hours) | | | |
| <input type="checkbox"/> MBA 5311 – Managerial Economics <input type="checkbox"/> MBA 5315 – Operations Management and Supply Chain <input type="checkbox"/> MBA 5322 – Organizational Behavior <input type="checkbox"/> MBA 5325 – Ethical and Moral Business Management | | | |

MINIMUM TOTAL: 150 hours