

**BS/MSIPC
Chemistry**

2019-2020 Catalog



**UNIVERSITY OF
ST. THOMAS**

Student: _____

ID#: _____

Advisor: _____

DATE: ____/____/____

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)

Credit Hour Breakdown	
Hours completed	
Hours in progress	
Core hours needed	
BBA major hours needed	
(Minor hours needed)	
Elective hours needed	
TOTAL BBA HOURS (120+)	
MBA hours completed	
MBA hours needed	

Core Curriculum (48-50 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.	(Included in major)	
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		
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 (63 credit hours)		Completed	Needed
Business Core Curriculum (38 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 (CHEM23423/2143) <input type="checkbox"/> CHEM 3334/3134 – Biochemistry and laboratory (junior standing; CHEM2343/2143) <input type="checkbox"/> CHEM 3343/3143 – Analytical Chemistry and laboratory (CHEM1342/1142) <input type="checkbox"/> CHEM 4331/4131– Advanced Organic chemistry and lab (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 and laboratory (CHEM 3333/3133; MATH 1432; Phys 1332/1112 or Phys 2334/2112) <input type="checkbox"/> CHEM 4112 – Scientific Communication (junior or senior standing) <input type="checkbox"/> CHEM 1450 – 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 be taken in order			
<input type="checkbox"/> MATH 1432 – Calculus I <input type="checkbox"/> MATH – 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 w lab <input type="checkbox"/> PHYS 2334/2112 – University Physics II w lab		
Electives		Completed	Needed
Electives to reach the 120 hour minimum to graduate (10-12 credit hours)			

MINIMUM TOTAL: 120+

MSIPC Requirements		Completed	Needed
MSIPC Core 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 – Waste and Safety Management <input type="checkbox"/> CHEM 6304 – Capstone/Project/Internship <input type="checkbox"/> CHEM 6301 – Industrial Organic Chemicals <input type="checkbox"/> CHEM 6302 – Industrial Inorganic Chemicals <input type="checkbox"/> CHEM 6303 – Analysis and Design of Chemical Processes			
MBA Required Courses (12 credit hours)			
<input type="checkbox"/> MBA 5311 – Managerial Economics (MBA 5X05, MBA 5X06) <input type="checkbox"/> MBA 5315 – Operational Management and Supply Chain (MBA 5X03) <input type="checkbox"/> MA 5322 – Organizational Behavior (MBA 5X07) <input type="checkbox"/> MBA 5325 – Ethical and Moral Business Management (MBA 5X07, MBA 5X08, 5X09)			