Student:_____

ID#: _____

Advisor: _____

Bachelor of Science in Chemical Engineering

2021-2022 Catalog

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)

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 (43 hours) Adapted for the Chemical Engineering Program	Complete	Needed
Theology (9 credit hours) Must take in order. *(Pre-req: Phil 1311 or 1315/3315)*		
☐ THEO 1301/3301 Intro to Sacred Scriptures ☐ THEO 2301/3311 Teachings of the Catholic Church ☐ THEO 3349 Christ and the Moral Life (Phil 2314 or 2316/3316)		
Philosophy (9 credit hours)		
☐ PHIL 1311 Philosophy of the Human Person ☐ PHIL 2314 Ethics ☐ PHIL 3333 Logic		
English (9 credit hours) Must take in order.		
☐ ENGL 1341 - The Classical Tradition: Literature & Composition I ☐ ENGL 1342 - The Middle Ages: Literature & Composition II ☐ ENGL 4393 - Technical Writing		
History (6 credit hours)		
☐ HIST 2333 – United States to 1877 ☐ HIST 2334 – United States since 1877		
Social and Behavioral Sciences (6 credit hours)		
☐ POSC 2331 – American Federal Government ☐ Choose 3 hours from Social & Behavioral Science list		
Natural Sciences (8-10 Credit Hours)	Included in Major	
(Included in cooperative engineering major requirements)		
Mathematics (3 credit hours)	Included in Major	
(Included in cooperative engineering major requirements)		
Fine Arts (3 credit hours)		
☐ ARTHS 2352 – Survey of Art II (recommended; consult with Department Chair)		
Freshman Symposium (1 credit hour) Required for all incoming freshmen.		
☐ UNIV 1111 Freshman Symposium		

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Major Requirements (85 credit hours)	Completed	Needed
Major Coursework (55 credit hours)		
☐ ENGR 1300/1100 – Introduction to Engineering ☐ PHYS 2333/2111 – University Physics I w/ lab MATH 1431 co or pre) ☐ PHYS 2334/2112 – University Physics II w/ lab)(PHYS 2333/2111, MATH 1432 co or pre) ☐ ENGR 2100 – Introduction to Engineering Design ☐ PHYS 3337/3137– Modern Physics/Lab (PHYS 2334) ☐ ENGR 3333/3133 – Electrical Circuits/Lab (ENG 3343, PHYS 2334/2112) ☐ ENGR/PHYS 3343 – Mathematical Methods for Physics and Engineering ☐ ENGR/PHYS 3130 – Junior/Senior Seminar ☐ PHYS 3336/PHYS4193(CHEM 4162) – Thermodynamics w/lab(CHEM 1342/1142; MATH 1432; PHYS 2334) ☐ ENGR 3348 – Fluids ☐ ENGR 3305 - Heat Transfer ☐ ENGR 3139 – Unit Operations Laboratory ☐ ENGR 3350 – Fundamentals of Biomolecular Engineering ☐ ENGR 4302 – Chemical Reactors and Separation Processes ☐ ENGR 3352 – Transport Phenomena ☐ ENGR 4354 – Transport Processes ☐ ENGR 4303 – Analysis and Design of Chemical Processes ☐ ENGR 4356/4156 – Chemical Engineering Capstone w/ Lab		
Chemistry (12 credit hours) Must take in order.		
☐ CHEM 1341/1141 – General Chemistry I and laboratory ☐ CHEM 1342/1142 – General Chemistry II and laboratory (CHEM 1341/1141) ☐ CHEM 2343/2143 – Organic Chemistry I and laboratory		
PHYS/ENGR Electives (6 credit hours)		
Choose from ENGR/PHYS options. Substitution with up to 4 credit hours of Upper Division Chemistry classes possible. Consult with Academic Advisor regarding options.		
Mathematics (12 credit hours) Must take in order.		
☐ MATH 1431 – Calculus I ☐ MATH 1432 – Calculus II ☐ MATH 2431 – Calculus III		

Totals	Completed	Needed
Total undergraduate hours in general (120 minimum):		

MINIMUM TOTAL: 128