

Student: _____

ID#: _____

Advisor: _____

Bachelor of Science in Mechanical Engineering

2020-2021 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)	Complete	Needed
Adapted for the Mechanical Engineering Program		
Theology (9 credit hours) Must take in order. <i>(Pre-req: Phil 1311 or 1315/3315)</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)		
<input type="checkbox"/> PHIL 1311 Philosophy of the Human Person <input type="checkbox"/> PHIL 2314 Ethics <input type="checkbox"/> PHIL 3333 Logic		
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 4393 - Technical Writing		
History (6 credit hours)		
<input type="checkbox"/> HIST 2333 – United States to 1877 <input type="checkbox"/> HIST 2334 – United States since 1877		
Social and Behavioral Sciences (6 credit hours)		
<input type="checkbox"/> POSC 2331 – American Federal Government <input type="checkbox"/> Choose 3 hours from Social & Behavioral Science list		
Natural Sciences (8-10 Credit Hours)	Included in Major	
<i>(Included in cooperative engineering major requirements)</i>		
Mathematics (3 credit hours)	Included in Major	
<i>(Included in cooperative engineering major requirements)</i>		
Fine Arts (3 credit hours)		
<input type="checkbox"/> ARTHS 2352 – Survey of Art II (recommended; consult with Department Chair)		
Freshman Symposium (1 credit hour) Required for all incoming freshmen.		
<input type="checkbox"/> UNIV 1111 Freshman Symposium		

Last updated on June 8, 2020

Bachelor of Science in Mechanical Engineering

2020-2021 Catalog

Major Requirements (81 credit hours)	Completed	Needed
Major Coursework (61 credit hours)		
<input type="checkbox"/> ENGR 1314– Fundamentals of Computer-Aided Design <input type="checkbox"/> ENGR 1300/1100 – Introduction to Engineering w/lab) <input type="checkbox"/> PHYS 2333/2111 – University Physics I w/ lab (MATH 1431 co or pre) <input type="checkbox"/> PHYS 2334/2112 – University Physics II w/ lab)(PHYS 2333/2111, MATH 1432 co or pre) <input type="checkbox"/> ENGR 2100 – Introduction to Engineering Design <input type="checkbox"/> PHYS 3337/3137 – Modern Physics w/ Lab (PHYS 2334/2112) <input type="checkbox"/> ENGR 3341 – Mechanics I [Statics] (MATH 2431, PHYS 2333) <input type="checkbox"/> ENGR 3342 – Mechanics II [Dynamics] (ENGR 3341) <input type="checkbox"/> ENGR/PHYS 3333/3133 – Electrical Circuits/Lab (ENGR 3343, PHYS 2334/2112) <input type="checkbox"/> ENGR/PHYS 3343 – Mathematical Methods for Physics and Engineering <input type="checkbox"/> ENGR/PHYS 3130 – Junior/Senior Seminar <input type="checkbox"/> PHYS 3336/PHYS4193(CHEM 4162) – Thermodynamics w/ lab (CHEM 1342/1142; MATH 1432; PHYS 2334/2112) <input type="checkbox"/> ENGR/PHYS 3138 – Advanced Laboratory (PHYS 3137) <input type="checkbox"/> ENGR 3347 - Strength of Materials <input type="checkbox"/> ENGR 3348 - Fluid Mechanics <input type="checkbox"/> ENGR/PHYS 4364 – Materials Science <input type="checkbox"/> ENGR 3305 – Heat Transfer <input type="checkbox"/> ENGR 3310 – Mechanical Elements <input type="checkbox"/> ENGR 4305 – Dynamic Systems and Controls <input type="checkbox"/> ENGR 4320/4120 – Engineering Design Capstone w/ Lab		
PHYS/ENGR electives (6 Credit hours)		
Complete 6 PHYS/ENGR elective hours. Consult with Academic Advisor for options.		
Chemistry (8 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)		
Mathematics (12 credit hours) Must take in order.		
<input type="checkbox"/> MATH 1431 – Calculus I <input type="checkbox"/> MATH 1432 – Calculus II <input type="checkbox"/> MATH 2431 – Calculus III		

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

MINIMUM TOTAL: 130