

B.S. MECHANICAL ENGINEERING
(Sustainability Minor)
Plan of Study

Year 1	Fall		Spring
	FYEX Foundation for College Success		
	ENGR 100 (FYE) Introduction to Engineering Design/SUST designation		CISC 130 Introduction to Programming & Problem Solving Science (Lab)
	ENGR 170 Mechanical Engineering Graphics		PHYS 211 Classical Physics I
	MATH 113 Calculus I		MATH 114 Calculus II
	CORE requirement	↔	ENVR 151 Environmental Problems & Sustainable Solutions
	CORE requirement/SUST designation		
	January-term		Summer
CORE requirement	↔		
Year 2	Fall		Spring
	ENGR 220 Statics		ENGR 221 Mechanics of Materials (Lab)
	MATH 200 Multi-Variable Calculus	↔	MATH 210 Introduction to Differential Equations & Systems
	PHYS 212 Classical Physics II	↔	CHEM 109 General Chemistry for Engineers (Lab)/SUST designation
	CORE requirement/SUST designation		CORE requirement
	January-term		Summer
CORE requirement	↔		
Year 3	Fall		Spring
	ENGR 255 Fabrication Skills (Lab)		
	ENGR 322 Dynamics (Lab)	↔	ENGR 350 Introduction to Electronics (Lab)
	ENGR 371 Manufacturing Processes & Statistical Control	↔	ENGR 320 Machine Design & Synthesis (Lab)
	ENGR 381 Thermodynamics (Lab)		ENGR 383 Fluid Mechanics (Lab)
	CORE requirement		CORE requirement
January-term		Summer	
Year 4	Fall		Spring
	ENGR 480 Engineering Design Clinic I		ENGR 481 Engineering Design Clinic II/SUST designation
	ENGR 410 Control Systems & Automation (Lab)	↔	ENGR 384 Heat Transfer (Lab)
	ENGR 361 Engineering Materials (Lab)	↔	ENGR XXX Engineering Elective
	CORE requirement		CORE requirement
January-term		Summer	

* arrow indicates that the two courses can be interchanged

* this illustrates just one example of how all courses could be taken within a 4-year plan

Complete Course Listing:

Engineering Courses:

*ENGR 100 – Introduction to Engineering (2 credits)
ENGR 170 – Mechanical Engineering Graphics (2 credits)
ENGR 220 – Statics (4 credits)
ENGR 221 – Mechanics of Materials (4 credits)
ENGR 255 – Fabrication Skills (0 credits)
ENGR 320 – Machine Design and Synthesis (4 credits)
ENGR 322 – Dynamics (4 credits)
ENGR 350 – Introduction to Electronics (4 credits)
ENGR 361 – Engineering Materials (4 credits)
ENGR 371 – Manufacturing Processes and Statistical Control (4 credits)
ENGR 381 – Thermodynamics (4 credits)
ENGR 383 – Fluid Mechanics (4 credits)
ENGR 384 – Heat Transfer (4 credits)
ENGR 410 – Control Systems and Automation (4 credits)
ENGR 480 – Engineering Design Clinic I (4 credits)
*ENGR 481 – Engineering Design Clinic II (4 credits)
4 Credits of Engineering Electives
60 Engineering Credits

Allied Requirements:

MATH 113 – Calculus I (4 credits)
MATH 114 – Calculus II (4 credits)
MATH 200 – Multi-Variable Calculus (4 credits)
MATH 210 – Introduction to Differential Equations and Systems (4 credits)
PHYS 211 – Classical Physics I (4 credits)
PHYS 212 – Classical Physics II (4 credits)
*CHEM 109 – General Chemistry for Engineers (4 credits)
CISC 130 – Introduction to Programming and Problem Solving in the Sciences (4 credits)
36 Allied Requirement Credits

Sustainability Minor Requirements

ENVR 151 Environmental Challenges & Sustainable Solutions (4 credits)
16 credits from Sustainability (SUST) designated courses
*Courses with asterisks can be used to fulfill the Sustainability designations
20 Sustainability Minor Credits (10 credits are included in the UST core curriculum, 10 credits included in mechanical engineering degree)

University of St. Thomas Core Curriculum:

FYEX Foundation for College Success (1 credit)
Language and Culture (0-8 credits)
*Literature and Writing (4 credits)
*Philosophy and Theology (12 credits)
*Fine Arts (4 credits)
Historical Studies (4 credits)
*Integrations in the Humanities (8 credits)
Some of these courses must satisfy the flagged requirements; check your degree evaluation
41 Core Curriculum Credits