

B.S. CIVIL ENGINEERING
(Materials Science & Engineering (MSE) Minor)
Plan of Study

Year 1	Fall		Spring	
	FYEX Foundation for College Success			
	ENGR 100 (FYE) Introduction to Engineering Design			
	ENGR 160 Surveying		CHEM 109 General Chemistry for Engineers (Lab)	
	MATH 113 Calculus I		MATH 114 Calculus II	
	GEOL 163 Applied Geology (Lab)		PHYS 211 Classical Physics I	
	CORE requirement		CORE requirement	
January-term		Summer		
CISC 130 Introduction to Programming & Problem Solving in the Sciences		↔	CORE requirement	
Year 2	Fall		Spring	
	ENGR 220 Statics		ENGR 221 Mechanics of Materials (Lab)	
	MATH 210 Introduction to Differential Equations & Systems		ENGR 361 Engineering Materials (Lab)	
	PHYS 212 Classical Physics II		ENGR 222 Dynamics for Civil Engineering	
	CORE requirement		CORE requirement	
	January-term		Summer	
STAT 220 Statistics I (Lab)		CORE requirement		
Year 3	Fall		Spring	
	ENGR 362 Construction & Engineering Economic Analysis (Lab)		ENGR 363 Construction Materials (Lab)	
	ENGR 364 Structural Analysis		ENGR 365 Design of Steel & Concrete Structures (Lab)	
	ENGR 368 Fluids Mechanics for Civil Engineering (Lab)		Thermodynamics Elective	
	CORE requirement		CORE requirement	
	January-term		Summer	
CORE requirement		↔	IDSC 365 Materials Science & Engineering Practicum	
Year 4	Fall		Spring	
	ENGR 480 Engineering Design Clinic I		ENGR 481 Engineering Design Clinic II	
	ENGR 463 Soil Mechanics and Foundations (Lab)		ENGR 468 Environmental Engineering	
	ENGR 467 Water Resources		ENGR 466 Transportation Engineering	
	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 Design (2 credits)
ENGR 160 - Surveying (1 credit)
ENGR 220 - Statics (4 credits)
*ENGR 221 - Mechanics of Materials (4 credits)
ENGR 222 - Dynamics for Civil Engineering (4 credits)
ENGR 362 - Construction & Engineering Economic Analysis (4 credits)
*ENGR 363 - Construction Materials (4 credits)
ENGR 364 - Structural Analysis (4 credits)
ENGR 365 - Design of Steel & Concrete Structures (4 credits)
ENGR 368 - Fluid Mechanics for Civil Engineering (4 credits)
ENGR 463 - Soil Mechanics & Foundations (4 credits)
ENGR 466 - Transportation Engineering (4 credits)
ENGR 467 - Water Resources (4 credits)
ENGR 468 - Environmental Engineering (4 credits)
ENGR 480 - Engineering Design Clinic I (4 credits)
ENGR 481 - Engineering Design Clinic II (4 credits)
59 Engineering Credits

Allied Requirements:

MATH 113 - Calculus I (4 credits)
MATH 114 - Calculus II (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)
CISC 130 - Introduction to Programming and Problem Solving in the Sciences (4 credits)
GEOL 163 - Applied Geology (4 credits)
CHEM 109 - General Chemistry for Engineers (4 credits)
STAT 220 - Statistics I (4 credits)
36 Allied Requirement Credits

Materials Science Engineering Minor Requirements:

ENGR 361 - Engineering Materials (4 credits)
IDSC 365 - Materials Science & Engineering Practicum (0 credits)
*ENGR/ Materials Electives (4 credits)
Materials Elective (outside of ENGR) (4 credits)
Thermodynamics Elective (may be fulfilled by CHEM 331, ENGR 381, GEOL 340, or PHYS 410) (4 credits)
**Courses with asterisk are requirements for both civil engineering and the MSE minor*
24 Materials Credits (8 credits are also included in the civil engineering major requirements)

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)
Social Analysis (4 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
45 Core Curriculum Credits