

# B.S. CIVIL ENGINEERING

(Peace Engineering Minor)

## Plan of Study

Year 1	<b>Fall</b>		<b>Spring</b>	
	FYEX Foundation for College Success			
	ENGR 100 (FYE) Introduction to Engineering Design		ENGR 162 Intro to Engineering Graphics	
	ENGR 160 Surveying		GEOL 163 Applied Geology (Lab)	
	MATH 113 Calculus I		MATH 114 Calculus II	
	CORE requirement		PHYS 211 Classical Physics I	
	CORE requirement		CORE requirement	
	<b>January-term</b>		<b>Summer</b>	
CORE requirement		←→		
Year 2	<b>Fall</b>		<b>Spring</b>	
	ENGR 220 Statics		ENGR 221 Mechanics of Materials (Lab)	
	MATH 210 Introduction to Differential Equations & Systems		ENGR 222 General Dynamics	
	STAT 220 Statistics I (Lab)		←→ CHEM 109 General Chemistry for Engineers (Lab)	
	JPST 250 Introduction to Justice & Peace Studies		←→ PHYS 212 Classical Physics II	
	<b>January-term</b>		<b>Summer</b>	
CORE requirement		←→		
Year 3	<b>Fall</b>		<b>Spring</b>	
	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)		ENGR 466 Transportation Engineering	
	CORE requirement		←→ JPST 3XX Justice & Peace Focus Course	
	<b>January-term</b>		<b>Summer</b>	
CORE requirement		ENGR 480 Engineering Design Clinic I Abroad		
Year 4	<b>Fall</b>		<b>Spring</b>	
	ENGR 481 Engineering Design Clinic II		THEO 227 Contexts: Justice & Peace	
	ENGR 463 Soil Mechanics and Foundations (Lab)		ENGR 468 Environmental Engineering	
	ENGR 467 Water Resources		ENGR Elective	
	JPST 473 Vocational Seminar		CORE requirement	
	CORE requirement			
<b>January-term</b>		<b>Summer</b>		

\* 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 (2 credits)  
ENGR 162 – Introduction to Engineering Graphics (1 credit)  
ENGR 220 – Statics (4 credits)  
ENGR 221 – Mechanics of Materials (4 credits)  
ENGR 222 – General Dynamics (2 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)  
ENGR Elective (2 credits)

**61 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)  
GEOL 163 – Applied Geology (4 credits)  
CHEM 109 – General Chemistry for Engineers (4 credits)  
STAT 220 – Statistics I (4 credits)

**32 Allied Requirement Credits****Peace Engineering Minor Requirements:**

JPST 250\* – Introduction to Justice & Peace Studies (4 credits)  
JPST 3XX\* – Justice & Peace Focus Course (4 credits)  
THEO 227 – Contexts: Justice & Peace (4 credits)  
ENGR 480/481 – Engineering Design Clinic I & II (Peace Engineering Designated Project, 8 credits) [see ENGR]  
JPST 473 – Vocational Seminar (Concurrent with ENGR 480 or 481, 0 credits)  
Essay on community experience of poverty, injustice, social conflict, or marginalization (0 credits)  
\*credits will count towards Integration in the Humanities (submitted for approval)

**12 Peace Engineering Minor Requirement Credits****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 (8 credits) [4 additional credits counted in Peace Engineering Requirement]  
Social Analysis (4 credits)  
Fine Arts (4 credits)  
Historical Studies (4 credits)

*Some of these courses must satisfy the flagged requirements; check your degree evaluation*

**33 Core Curriculum Credits**