

**B.S. in Mechanical Engineering and Peace Engineering Minor
Plan of Study- Peace Engineering Program**

	Fall	Spring	Summer/ J-Term
Year 1	ENGR 150 Introduction to Engineering		
	MATH 113 Calculus I	MATH 114 Calculus II	THEO 101 The Christian Theological Tradition
	ENGR 171 Engineering Graphics (LAB)	↔ CISC 130 Introduction to Programming and Problem Solving in the Sciences (LAB) (or CISC 131)	PHIL 115 Philosophy of the Human Person
	ENGL 121 Critical Thinking: Literature & Writing	PHYS 211 Classical Physics I (LAB)	
	Foreign Language 111*	Foreign Language 112*	
Year 2	ENGR 220 Statics	PHYS 212 Classical Physics II (LAB)	PHIL 214 Introductory Ethics
	MATH 200 Multi-Variable Calculus	↔ MATH 210 Introduction to Differential Equations and Systems	THEO 2XX or 3XX
	JPST 250 Introduction to Justice and Peace Studies **	ENGR 221 Mechanics of Materials (LAB)	
	Foreign Language 211*	ENGL 20X Texts in Conversation	
Year 3	ENGR 255 Fabrication Lab***		
	ENGR 371 Manufacturing Processes and Statistical Control	ENGR 320 Machine Design & Synthesis (LAB)	Significant Experience
	CHEM 109 General Chemistry for Engineers (LAB)	ENGR 322 Dynamics	THEO 421 Theologies of Justice and Peace
	ENGR 381 Thermodynamics (LAB)	↔ ENGR 350 Introduction to Electronics (LAB)	
	JPST 3XX Focus Class	ENGR XXX Engineering Elective	
Year 4	ENGR 480 Engineering Design Clinic I	ENGR 481 Engineering Design Clinic II	Fine Arts Elective
	JSPT 473 Vocational Seminar (0 cr.)	↔	
	ENGR 383 Fluid Mechanics (LAB)	ENGR 384 Heat Transfer (LAB)	
	ENGR 410 Control Systems and Automation (LAB)	ENGR 361 Engineering Materials (LAB)	
	Social Science Elective	HIST 1XX	

* May place out of one or more semesters if proficient at 3rd Level

** Satisfies human diversity requirement

*** Lab skills must be retained for ENGR 320. Recommended to be taken in semester immediately preceding or (with instructor permission) in first half of semester concurrent with ENGR 320. May be taken in earlier semesters if student maintains lab shop skill proficiency for 320.

↔ denotes that the two courses can be interchanged

Complete Course Listing:

Engineering Courses:

ENGR 150 – Introduction to Engineering (1 credit)
ENGR 155 – Fabrication Lab (0 credits)
ENGR 171 – Engineering Graphics (4 credits)
ENGR 220 – Statics (4 credits)
ENGR 221 – Mechanics of Materials (4 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

61 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)

32 allied requirement credits

Minor Requirements:

JPST 250 – Introduction to Justice and Peace Studies (4 credits)
JPST 3XX – Justice & Peace Focus Class (4 credits)
THEO 421 – Theologies of Justice and Peace (4 credits)
ENGR 480/481 – Engineering Design Clinic I & II (with a peace engineering designated project) (8 credits)
JPST 473 - Vocational Seminar (concurrent with ENGR 480 or 481) (0 credits)

20 minor requirement credits

Core Curriculum

Three courses in foreign language (12 credits)
Two courses in English (8 credits)
Three courses in Theology* (12 credits)
Two courses in Philosophy (8 credits)
One course in the Social Sciences (4 credits)
One Fine Arts course (4 credits)
One History course (4 credits)
One Human Diversity course* (4 credits)

56 core curriculum credits

**Requirement fully or partially filled by minor requirements*

Total Credit Count: 153 (61 engineering credits + 32 allied credits + 12 unfilled minor credits + 48 unfilled core curriculum credits)