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

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer/J-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ENGR 150 Introduction to Engineering</td>
<td>ENGR 155 Fabrication Lab</td>
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<td></td>
<td>MATH 113 Calculus I</td>
<td>MATH 114 Calculus II</td>
<td>THEO 101 The Christian Theological Tradition</td>
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<td></td>
<td>ENGR 171 Engineering Graphics (LAB)</td>
<td>CISC 130 Introduction to Programming and Problem Solving in the Sciences (LAB) (or CISC 131)</td>
<td>PHIL 115 Philosophy of the Human Person</td>
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<td>ENGL 121 Critical Thinking: Literature &amp; Writing</td>
<td>PHYS 211 Classical Physics I (LAB)</td>
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<td>Foreign Language 111*</td>
<td>Foreign Language 112*</td>
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<td>2</td>
<td>ENGR 220 Statics</td>
<td>PHYS 212 Classical Physics II (LAB)</td>
<td>PHIL 214 Introductory Ethics</td>
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<td>MATH 200 Multi-Variable Calculus</td>
<td>MATH 210 Introduction to Differential Equations and Systems</td>
<td>THEO 2XX or 3XX</td>
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<td>JPST 250 Introduction to Justice and Peace Studies **</td>
<td>ENGR 221 Mechanics of Materials (LAB)</td>
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<td>Foreign Language 211*</td>
<td>ENGL 20X Texts in Conversation</td>
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<td>3</td>
<td>ENGR 371 Manufacturing Processes and Statistical Control</td>
<td>ENGR 320 Machine Design &amp; Synthesis (LAB)</td>
<td>Significant Experience</td>
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<td></td>
<td>CHEM 109 General Chemistry for Engineers (LAB)</td>
<td>ENGR 322 Dynamics</td>
<td>THEO 421 Theologies of Justice and Peace</td>
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<td>ENGR 381 Thermodynamics (LAB)</td>
<td>ENGR 350 Introduction to Electronics (LAB)</td>
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<td>JPST 3XX Focus Class</td>
<td>ENGR XXX Engineering Elective</td>
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<tr>
<td>4</td>
<td>ENGR 480 Engineering Design Clinic I</td>
<td>ENGR 481 Engineering Design Clinic II</td>
<td>Fine Arts Elective</td>
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<td>JSPT 473 Vocational Seminar (0 cr.)</td>
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<td>ENGR 383 Fluid Mechanics (LAB)</td>
<td>ENGR 384 Heat Transfer (LAB)</td>
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<td>ENGR 410 Control Systems and Automation (LAB)</td>
<td>ENGR 361 Engineering Materials (LAB)</td>
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<td>Social Science Elective</td>
<td>HIST 1XX</td>
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* May place out of one or more semesters if proficient at 3rd Level
** Satisfies human diversity requirement

↔ 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)