

Engineering Degree Requirements

Degree: B.S. Major: Engineering



General Education Requirements

Group 1. Christian Living

- 3 THEO 101 Christian Formation
- 3 BLIT 202 Christian Scriptures I
- 3 BLIT 303 Christian Scriptures II
- 3 THEO 404 Christian Faith

Group 2. Communication

- 3-4 ENGL 108 or 109 College Writing I
- 3 COMM 105 Fund. of Communication

Group 3. Cultural Understandings

- 3 FINA 101 Intro. to Fine Arts
- 3 HIST 200 Western Civilization
- 3 LIT 205 Studies in Literature
- 3 Select from: ECON 110, PSCI 101, PSCI 223, PSYC 101, SOCY 120
- 3-8 Elementary I, II Foreign Language or approved International Culture courses

Group 4. Natural Science and Math

- 3-4 BIOL 201 General Biological Science OR approved biological Science lab course (BIOL 125)

Group 5. Personal Health

- 3 PHED 126 Nutrition or
- 3 PHED 190 Wellness

39-46 total hours

Required Supporting Courses:

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> 4 CHEM 103 | General Chemistry I |
| <input type="checkbox"/> 4 MATH 147 | Calculus I |
| <input type="checkbox"/> 4 MATH 148 | Calculus II |
| <input type="checkbox"/> 4 MATH 241 | Statistics |
| <input type="checkbox"/> 3 MATH 357 | Differential Equations |
| <input type="checkbox"/> 4 MATH 361 | Calculus III |
| <input type="checkbox"/> 5 PHYS 201 | General Physics I |
| <input type="checkbox"/> 5 PHYS 202 | General Physics II |

33 Total Hours

Core Engineering Courses

- | | |
|-------------------------------------|------------------------------|
| <input type="checkbox"/> 3 ENGN 101 | Engineering Design I |
| <input type="checkbox"/> 3 ENGN 102 | Engineering Design II |
| <input type="checkbox"/> 3 ENGN 170 | Logic & Computational Eng. |
| <input type="checkbox"/> 3 ENGN 250 | Engineering Economics |
| <input type="checkbox"/> 3 ENGN 261 | Statics & Mech. of Materials |
| <input type="checkbox"/> 3 ENGN 262 | Dynamics |
| <input type="checkbox"/> 3 ENGN 270 | Digital Systems |
| <input type="checkbox"/> 3 ENGN 300 | Electric Circuit Analysis |
| <input type="checkbox"/> 3 ENGN 335 | Tech. Comm. & Exper. Design |
| <input type="checkbox"/> 4 ENGN 351 | Material Science |
| <input type="checkbox"/> 4 ENGN 371 | Automatic Controls |
| <input type="checkbox"/> 4 ENGN 380 | Thermodynamics |
| <input type="checkbox"/> 3 ENGN 420 | Fluid Mechanics |
| <input type="checkbox"/> 2 ENGN 481 | Senior Design Project I |
| <input type="checkbox"/> 2 ENGN 482 | Senior Design Project II |

46 Total hours

Select **ONE** of the two concentrations (14 total hours)

Concentration in Mechanical Engineering

- 4 ENGN 353 Vibration Analysis
- 3 ENGN 356 Computer Aided Engineering
- 4 ENGN 385 Heat Transfer
- 3 ENGN 412 Machine Synthesis & Design

Concentration in Electrical Engineering

- 3 ENGN 310 Circuits & Signal Processing
- 4 ENGN 311 Communication Systems
- 3 ENGN 340 Digital Electronics
- 4 ENGN 346 Analog Electronics

Including General Education and required supporting courses, the B.S. in Engineering will usually require 135 hours. Students entering with 4 years of the same high school language can complete the program with 129 hours. If students take a 3 hour international travel course then the program would require 132 hours.