

| General Engineering B.S. with Computational Modeling Minor | | | | | |
|--|---|-----------|----------------------------------|---|------------|
| | | | | For students entering Fall 2024 2025 | |
| First Year - Fall Semester | | | First Year - Spring Semester | | |
| Course | Title | Credits | Course | Title | Credits |
| CHEM 121/L CORE course 9 | General Chemistry I / CORE 9 NatSci | 4 | CHEM122 | General Chemistry II | 4 |
| MATH 121 CORE course 8 | Calculus I / CORE 8 Quant | 3 | MATH122 | Calculus II | 3 |
| ENGR 101 CORE course 1 | Engineering CORE 1 (Foundations) | 3 | PHYS121 | General Physics I | 4 |
| CORE course 5 | History | 3 | ENGR102 | Introduction to Engineering II | 1 |
| CORE course 3 | WRIT 102, Research Writing | 3 | CORE course 7 | Literature | 3 |
| ENGR192 | Freshman Engineering Seminar | 0 | CORE course 2 | CORE course 2 | 3 |
| | | | ENGR193 | Freshman Engineering Seminar | 0 |
| | Total | 16 | | Total | 18 |
| Second Year - Fall Semester | | | Second Year - Spring Semester | | |
| Course | Title | Credits | Course | Title | Credits |
| MATH221 | Calculus III | 3 | MATH306 | Differential Equations I | 3 |
| PHYS122/L | General Physics II | 4 | ENGR202 | Engineering Dynamics | 3 |
| ENGR210/L | Programming for Eng (1 hr lec, 2 hr lab) | 2 | ENGR315/L | Mechanics of Materials | 3 |
| ENGR201 | Engineering Statics | 3 | ENGR325/L | Fundamentals of Electrical Eng (2hr L) | 4 |
| ENGR250 | Solid Modeling and CAD | 3 | ENGR279 | Sophmore Engr. Design for Service | 2 |
| CORE course 6 | Social Science (Human Geography if approved) | 3 | CORE course 11 | Religion or Philosophy *EOY with MATH 212 | 3 |
| ENGR292 | Sophomore Engineering Seminar | 0 | ENGR293 | Sophomore Engineering Seminar | 0 |
| | Total | 18 | | Total | 18 |
| Third Year - Fall Semester | | | Third Year - Spring Semester | | |
| Course | Title | Credits | Course | Title | Credits |
| MATH322 | Linear Algebra | 3 | ENGR335 | Engineering Instrumentation (1 lect 1 lab) | 1 |
| ENGR301/L | Fluid Mechanics | 4 | ENGR375 | Heat Transfer | 3 |
| ENGR321 | Applied Engr. Thermodynamics | 3 | ECON 101 CORE course 4 | Economics / CORE II, Civic responsibility | 3 |
| ENGR350 | Materials Science | 3 | MATH309 | Mathematical Modeling *EOY in senior year | 3 |
| ENGR379 | Junior Engr. Design for Service | 3 | MATH212 | Approximation Methods I *EOY with CORE course 11 | 3 |
| ENGR392 | Junior Engineering Seminar | 0 | ENGR497 | Capstone Design Proposal | 1 |
| | | | ENGR393 | Junior Engineering Seminar | 1 |
| | Total | 16 | | Total | 15 |
| Senior Year - Fall Semester | | | Senior Year - Spring Semester | | |
| Course | Title | Credits | Course | Title | Credits |
| ENGR427 | Power/Thermal Systems Lab | 1 | ENGR498 CORE course 15 | Capstone Design / CORE 15 (needs approval) | 3 |
| ENGR415 | Senior Lab | 3 | ENGR407 CORE course 14 | Sustainability in Engineering Design / CORE III / CORE 14 | 3 |
| MATH312 | Approximation Methods II *EOY with CORE course 6 | 3 | CORE course 12 | Fine Arts | 3 |
| CPSC402 | Algorithm Design and Analysis | 3 | ENGR410 | Applied Finite Element and Volume Modeling | 4 |
| CORE course 13 | Ethics | 3 | ENGR493 | Senior Engineering Seminar | 0 |
| CORE course 10 | Language / Culture | 3 | | | |
| ENGR492 | Senior Engineering Seminar | 0 | | | |
| | Total | 16 | | Total | 13 |
| | | | | | |
| | Courses for CORE curriculum | | Total credits | | 130 |
| 16 | Courses for the minor | | *EOY = every other year offering | | |