Applied Science Course Plan

Catalog Year 2020-2021

Legend

* Major Requirement

Must be taken to fulfill major requirements.

† Major Elective

Must be taken to fulfill major requirements, or replaced with an equivalent course.

‡ Gen-Ed Requirement

Must be taken to fulfill general education requirements.

§ Elective

Can be chosen from a selection of courses.

See MyGFU for detailed academic requirements.

First Year

Fall Semester

Engineering Principles I (ENGR 151) *	3 credits
General Chemistry (CHEM 211) *	4 credits
Calculus I (MATH 201) *	4 credits
I Believe (THEO 101) ‡	3 credits
Knowing and Being Known (LIBA 100) ‡	3 credits
Semester Total	**17 credits**
Cumulative Total	**17 credits**

Spring Semester

Engineering Principles II (ENGR 152) *	3 credits
General Chemistry (CHEM 212) *	4 credits
General Physics with Calculus (PHYS 211) *	4 credits
Calculus II (MATH 202) *	4 credits
I Believe (THEO 102) ‡	3 credits
Semester Total	**18 credits**
Cumulative Total	**35 credits**

Second Year

Fall Semester

Statics (ENGM 211) *	3 credits
General Physics with Calculus (PHYS 212) *	4 credits
Calculus III (MATH 301) *	3 credits
Introduction to Communication (COMM 100) ‡	3 credits
*Social Science Requirement (PSCI 150, PSYC 150, or SOCI 150) §	3 credits
Lifelong Fitness (HHPA 120) ‡	2 credits
Semester Total	**18 credits**
Cumulative Total	**53 credits**

Spring Semester

Principles of Materials Science (ENGM 250) *	3 credits
Electrical Circuit Analysis (ENGE 250) *	4 credits
Dynamics (ENGM 212) *	3 credits
Differential Equations with Linear Algebra (MATH 311) *	3 credits
*Fine Arts GE Requirement (HUMA 290 or Alternative Option) §	3 credits
Semester Total	**16 credits**
Cumulative Total	**69 credits**

Third Year

Fall Semester

Engineering Thermodynamics (ENGM 311) *	3 credits
Math Elective (6 credits required) *	3 credits
Bible Elective (THEO 215 or THEO 315) ‡	3 credits
*HIST GE Requirement ‡	3 credits
Electives §	6 credits
Semester Total	**18 credits**
Cumulative Total	**87 credits**

Spring Semester

Engineering Elective *	3 credits
Math Elective (6 credits required) *	3 credits
Intercultural Experience Requirement ‡	3 credits
Electives ‡	9 credits
Semester Total	**18 credits**
Cumulative Total	**105 credits**

Fourth Year

Fall Semester

See note below *	12 credits
Semester Total	**12 credits**
Cumulative Total	**117 credits**

Spring Semester

See note below *	9 credits
Semester Total	**9 credits**
Cumulative Total	**126 credits**

Notes

Students must transfer 12 additional semester hours in engineering courses from the cooperating engineering school.

The remainder of the engineering curriculum will be taken in two years at the cooperating engineering school. For a complete list of required courses, consult the engineering advisor or CAP Coach in the IDEA Center.

*It is strongly recommended that students interested in pursuing the 3/2 option in chemical engineering also enroll in CHEM 331 Organic Chemistry (4), CHEM 332 Organic Chemistry (4), CHEM 440 Thermodynamics (4) and CHEM 450 Quantum Chemistry (3) during their three years at George Fox University.