

General Engineering B.S. with Aeronautics Minor

For students entering Fall 2023

First Year - Fall Semester

Course	Title	Credits
CHEM121	General Chemistry I	4
MATH121	Calculus I	3
ENGR101	Introduction to Engineering I	1
AVI 110	Private Pilot Theory	3
AVI 111	Private Pilot Flight Lab I	1
WRIT102	Research Writing	3
CORE103	Community Enrichment Series	0
ENGR192	Freshman Engineering Seminar	0
Total		15

First Year - Spring Semester

Course	Title	Credits
CHEM122	General Chemistry II	4
MATH122	Calculus II	3
PHYS122	General Physics I	4
ENGR102	Introduction to Engineering II	1
AVI 112	Private Pilot Flight Lab II	1
CORE 113	Freshman Academic Seminar	0
CORE104	Community Enrichment Series	0
ENGR193	Freshman Engineering Seminar	0
Total		15

Second Year - Fall Semester

Course	Title	Credits
MATH221	Calculus III	3
PHYS122/L	General Physics I	4
ENGR210/L	Programming for Engineers	2
ENGR201	Engineering Statics	3
ENGR250	Solid Modeling and CAD	3
RLST105	Religious Studies	3
ENGR292	Sophomore Engineering Seminar	0
Total		18

Second Year - Spring Semester

Course	Title	Credits
MATH306	Differential Equations I	3
ENGR202	Engineering Dynamics	3
ENGR315/L	Mechanics of Materials	3
ENGR325/L	Fundamentals of Electrical Engineering	3
ENGR279	Sophomore Engr. Design for Service	3
PHIL 205	Philosophy and Reasoning	3
ENGR293	Sophomore Engineering Seminar	0
Total		18

Third Year - Fall Semester

Course	Title	Credits
MATH322	Linear Algebra	3
ENGR301/L	Fluid Mechanics	4
ENGR321	Applied Engr. Thermodynamics	3
ENGR350	Materials Science	3
HIST1/200	History Elective	3
EXAM301	Writing Competency Exam	0
ENGR392	Junior Engineering Seminar	0
Total		16

Third Year - Spring Semester

Course	Title	Credits
ENGR335	Engineering Instrumentation	3
ENGR375	Heat Transfer	3
ENGR379	Junior Engr. Design for Service	3
ENGR435/L	Control Theory	3
EPPS	Social science elective (1/2)	3
LIT104	LIT103, 201, 202, 207, 270	3
ENGR393	Junior Engineering Seminar	0
Total		16

Senior Year - Fall Semester

Course	Title	Credits
ENGR427	Power/Thermal Systems Lab	1
ENGR415	Senior Lab	3
ENGR497	Capstone Design Proposal	1
ENGR445	Mechanisms, Linkages, and Design of Machine Eler	3
ECON 101	Economics (EPPS)	3
DIVER	Diversity requirement	3
PHIL/RLST	Philosophy/Religious Studies Elect.	3
ENGR492	Senior Engineering Seminar	0
Total		17

Senior Year - Spring Semester

Course	Title	Credits
ENGR498	Capstone Design	3
CORE407	Keystone Seminar	0
ENGR425	Advanced Thermal and Fluid Systems	3
FNAR	Fine Arts	3
EPPS	Social science elective (2/2)	3
LANG	Language requirement	3
ENGR493	Senior Engineering Seminar	0
Total		16

Courses for CORE curriculum

16 Courses for the minor

Total credits

Aeronautics Minor (16)

Credits

- [ENGR 425 - Advanced Heat Transfer and Fluid Mechanics](#), 3
- [ENGR 435 - Control Theory](#), 4
- [ENGR 445 - Mechanisms, Linkages and Design of Machine Elements](#), 3
- [AVI 110 – Private Pilot Theory](#), 3
- [AVI 111 – Private Pilot Flight Lab I](#), 1
- [AVI 112 – Private Pilot Flight Lab II](#), 1

17

Credits in the General engineering central requirements = 85

Credits in the CORE curriculum 39

Credits in the Minor = 15

Total credits = 137

Credits

18

Credits

18

Credits

18

137