

Applied Engineering

Concentration: Sustainability and Environmental Engineering

Catalog Term: Fall 2023

Total credit hours: 120

FALL	Hrs	SPRING	Hrs
FYET 102A FYS: Intro to Tech & Innovation	3	ECON 201 * Principles of Macro Economics (General Education B5)	3
ENGL 101 * College English I P: See Course Catalog	3	ENGL 102 * College English II P: ENGL 101	3
MATH 242* Calculus 1 P: (MATH 111, MATH 123) or MATH 112	5	MATH 243 * College Calculus 2 P: MATH 242	5
Total Hours	14	Total Hours	14

FALL	Hrs	SPRING	Hrs
APEN 201 * Introductory Design Project P: FYET 102A	1	APEN 312 Applied Statics P: PHYS 313 (or PHYS 213 + MATH 243) (Spring only) or AE 223	3
PHYS 313 + 315 Physics for Scientists P: MATH 111 or higher or IME 254 Engr Probability & Stat P: MATH 242	3	APEN 320 Circuits Technology or ECE 282+L Circuits I P/C: MATH 243	4
IME 222 + 222L Engineering Graphics P: MATH 123	3	APEN 354 * Statistical Process Control P/C: ECON 201, (STAT 370 or IME 254) Spring only	3
GEOL 300 Energy, Resources & Environment P: Into BIOL, CHEM or PHYS	3		
Total Hours	15	Total Hours	15

FALL	Hrs	SPRING	Hrs
APEN 301 * Intermediate Design Project P: APEN 201 or ENGR 205	1	APEN 441 * Analysis of Decision Processes P: STAT 370 or IME 254 Spring only	3
APEN 323 Intro to Fluids P: APEN 312 or AE 223 Fall only	3	IME 258 + 258L Manufacturing Methods I P: MATH 123, IME 222	4
APEN 334 Intro Strengths & Mech of Materials P: APEN 312 or AE 223 Fall only	3	PHIL 385 * Engineering Ethics P: Junior or senior standing	3
APEN 370 Environmental Engineering Tech P: CHEM 211 Fall only	3	ME 250 Materials Engineering P: MATH 242, CHEM 211 with "C" or better	3
APEN 492 Energy Management & Sustainability P: ECON 201 or IME 255 Fall only	3	ME 251 Materials Engineering Lab C: ME 250	1
MATH 451 Comput Math using MATLAB P: MATH 243 or Any MATH 300 level and above	3	Engineering + 1 of 3 See notes	
Total Hours	16	Total Hours	14

FALL	Hrs	SPRING	Hrs
APEN 401 Senior Design Project I P: APEN 301, PHIL 385, (ECON 201 c 255) Fall only	3	APEN 402 Senior Design Project II P: APEN 401 Spring only	3
APEN 600 Water and Wastewater Treatment P: APEN 323, APEN 370 Fall Only	3	APEN 610 Hydraulics and Hydrology P: APEN 323 Spring only	3
General Education * In Fine Arts or Humanities (but not PHIL)	3	APEN 620 Structural Analysis & Design P: APEN 334 Spring only	3
Technical Electives	3	APEN 510 or ECE 596 Renewable Energy Engineering P: ENGT 320 or ECE 282 Spring only	3
Technical Elective	3	Technical Elective	5
Engineering + 2 of 3 See notes		Engineering + 3 of 3 See notes	
Total Hours	15	Total Hours	17

Notes:
All first-time-in-college students must take FYET102A within their first two semesters.
Transfer students must take ENGR205 to replace FYET102A and APEN201. Extra credit hours may be required.

P: Prerequisite C: Corequisite
* May be available as an online or hybrid class.
Last Updated: 5/202