

Applied Engineering

Concentration: Engineering Management

Catalog Term: Fall 2025

Total credit hours: 120



FRESHMAN			
FALL	Hr	SPRING	Hr
FYAP 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
COMM 111 * Public Speaking	3	BIOL 370 Intro to Environmental Science or Any BIOL or CHEM course ^(b)	3
MATH 242* Calculus 1 P: (MATH 111, MATH 123) or MATH 112	5	MATH 243 * Calculus 2 P: MATH 242	5
Total Hours	14	Total Hours	14

SOPHOMORE			
FALL	Hr	SPRING	Hr
APEN 201 * Introductory Design Project P: FYAP 102A <i>Fall only</i>	1	AE 223 Statics P: PHYS 313 P/C: MATH 243	3
PHYS 313 + 315 Physics for Scientists I P/C: MATH 243	5	APEN 354 Statistical Process Control P/C: ECON 201, (STAT 370 or IME 254) <i>Spring only</i>	3
IME 254 Engr Probability & Stat P: MATH 242 or STAT 370 Elem Statistics P: MATH 111 or higher	3	PHYS 314 + 316 Physics for Scientists II P: MATH 243 & PHYS 313 OR CHEM 211 + 211L	5
IME 222 + 222L Engineering Graphics P: MATH 123	3	APEN 210 Intro to Facilities Management <i>Spring Only</i>	3
GEOL 300 Energy, Resources & Environment P: Intro BIOL, CHEM or PHYS	3	BADM 162 Buss Software: Excel P/C: MATH 111	1
Total Hours	15	Total Hours	15

JUNIOR (at WSU)			
FALL	Hr	SPRING	Hr
APEN 334 Intro Strengths & Mech of Materials P: APEN 312 or AE 223 <i>Fall only</i>	3	APEN 301 * Intermediate Design Project P: APEN 201 or ENGR 205 <i>Spring/Summer only</i>	1
APEN 492 Energy Management & Sustainability P: GEOL 300 & (ECON 201 or IME 255) <i>Fall only</i>	3	APEN 441 Analysis of Decision Processes P: STAT 370 or IME 254 <i>Spring only</i>	3
MATH 451 Comput Math using MATLAB P: MATH 243 or Any MATH 300 level and above ^b	3	PHIL 385 * Engineering Ethics P: Junior or senior standing	3
ECE 282+L Circuits I P/C: MATH 243	4	IME 258 + 258L Manufacturing Methods I P: MATH 123 & IME 222	4
ACCT 210 *# Financial Accounting P: MATH 111, BADM 162	3	BLAW 431 *# Legal Environment of Business P: Junior or advanced standing	3
Engineering + 1 of 3 See notes		Engineering + 2 of 3 See notes	
Total Hours	16	Total Hours	14

SENIOR (at WSU)			
FALL	Hr	SPRING	Hr
APEN 401 Senior Design Project I P: APEN301, AE223, APEN354, (ECON201 / IME255), dept. con. P/C: PHIL385, APEN492 <i>Fall only</i>	3	APEN 402 Senior Design Project II P: APEN 401 <i>Spring only</i>	3
APEN 664 Engineering Project Management P: ECON 201 or IME 255 P/C: PHIL 385 <i>Fall only</i>	3	General Education * In Fine Arts or Humanities (but not PHIL)	3
APEN 572 Applied Machine Learning P: (APEN 354, PSY 301, STAT 370, or IME 254) <i>Fall only</i>	3	General Education in Social/Behavioral Science but not ECON	3
DS 350 *# Intro to Prod. & Oper. Management P: BADM162 & ECON 231 (APEN 354 is accepted for ECON 231)	3	Technical Elective	4/5
APEN 361 Ind Contrl & Inst P: ECE282/ENGT320 (<i>Fall only</i>) or APEN 510 Solar & Wind Eng P: ECE282/ENGT320 (<i>Spring only</i>)	3/4	Technical Elective	3
Engineering + 3 of 3 See notes			
Total Hours	15/16	Total Hours	16/17

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.

Students must submit the [Non-Business Student Request Form](#) to take business classes

Students must fulfill three Engineering+ requirements.

All prerequisites courses need to be completed with C or higher (2.0/4.0 grade point average).

All technical electives must be preapproved by a faculty advisor. Please refer to the Applied Engineering (APEN) website or consult with your APEN advisor for current list of technical electives.

P: Prerequisite C: Corequisite

* May be available as an online or hybrid class.

a. General Education Courses from an approved list

b. Department Chair approval. CHEM only if CHEM211 not taken

Last Updated: 4/2025