

Applied Engineering

Concentration: Engineering Management

Catalog Term: Fall 2024

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	1	AE 223 Statics P: PHYS 313 P/C: MATH 243 or APEN 312 Applied Statics <i>Spring only</i>	3
PHYS 313 + 315 Physics for Scientists I P/C: MATH 243	5	PHYS 314 + 316 Physics for Scientists II P: MATH 243 & PHYS 313 <u>OR</u> CHEM 211 + 211L	5
IME 254 Engr Probability & Stat P: MATH 242 or STAT 370 Elem Statistics P: MATH 111 or higher	3	APEN 210 Intro to Facilities Management	3
IME 222 + 222L Engineering Graphics P: MATH 123	3	APEN 354 Statistical Process Control P/C: ECON 201, (STAT 370 or IME 254) <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 301 * Intermediate Design Project P: APEN 201 or ENGR 205	1	APEN 441 Analysis of Decision Processes P: STAT 370 or IME 254 <i>Spring only</i>	3
APEN 334 Intro Strengths & Mech of Materials P: APEN 312 or AE 223 <i>Fall only</i>	3	BLAW 431 * Legal Environment of Business P: Junior or advanced standing	3
APEN 492 Energy Management & Sustainability P: GEOL 300 & (ECON 201 or IME 255) <i>Fall only</i>	3	PHIL 385 * Engineering Ethics P: Junior or senior standing	3
ACCT 210 * Financial Accounting P: MATH 111, BADM 162	3	ECE 282+L Circuits I P/C: MATH 243 or ENGR 220 App Anal & Dig Electron	3-4
MATH 451 Comput Math using MATLAB P: MATH 243 or Any MATH 300 level and above ^b	3	IME 258 + 258L Manufacturing Methods I P: MATH 123 & IME 222	4
Technical Elective	3	Engineering + 1 of 3 See notes	
Total Hours	16	Total Hours	16-17

SENIOR (at WSU)			
FALL	Hr	SPRING	Hr
APEN 401 Senior Design Project I P: APEN 301 & (ECON 201 or IME 255) P/C: PHIL 385 <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	RE 310 or RE 420 Real Estate Property Management P: Junior standing <i>Spring only</i>	3
APEN 572 Applied Machine Learning P: (APEN 354, PSY 301, STAT 370, or IME 254)	3	Technical Elective	3
DS 350 * Intro to Prod. & Oper. Management P: BADM162 & ECON 231 (APEN 354 is accepted for ECON 231)	3	Technical Elective	3
General Education * In Fine Arts or Humanities (but not PHIL)	3	Technical Elective	2-3
Engineering + 2 of 3 See notes		Engineering + 3 of 3 See notes	
Total Hours	15	Total Hours	14-15

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.
 Students taking ECE 282 require one less Technical elective credit

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: 5/2023