

Product Design and Manufacturing Engineering

Catalog Term: Fall 2021

Total credit hours: 128

FRESHMAN			
FALL	Hr	SPRING	Hr
ENGL 101 * College English I Pre-req: See Course Catalog	3	ENGL 102 * College English II Pre-req: ENGL 101 with "C" or better	3
MATH 242 Calculus I Pre-req: MATH 111 & 123 with "C" or better or MATH 112 with "C" or better	5	MATH 243 Calculus II Pre-req: MATH 242 with "C" or better	5
CHEM 211 + 211L General Chemistry I Co-req: MATH 111	5	PHYS 313 + 315 Physics for Scientist I & Lab Co-req: MATH 243 with "C" or better	5
IME 222 + IME 222L Engineering Graphics & Lab Pre-req: MATH 123 or equivalent with "C" or better	3	First-Year Seminar* Recommended: WSUE102C Community Connection Note a	3
Total Hours	16	Total Hours	16

SOPHOMORE			
FALL	Hr	SPRING	Hr
COMM 111 * Public Speaking	3	MATH 555 Differential Equations Pre-req: MATH 243 with "C" or better	3
IME 258 + IME 258L Manufacturing Methods I Pre-req: MATH 123 & IME 222 both with "C" or better (Offered Fall and Spring only)	4	PHYS 314 + 316 Physics for Scientist II & Lab Pre-req: MATH 243 with "C" or better & PHYS 313 (Offered Fall and Spring only)	5
AE 223 Statics Pre-req: PHYS 313 with "C" or better, Co-req: MATH 243	3	IME 255 * Engineering Economy Coreq: MATH 242 (Offered Fall and Spring only)	3
IME 254 Engineering Probability and Statistics I Pre-req: MATH 243 with "C" or better (Offered Fall and Spring only)	3	AE 333 Mechanics of Materials Pre-req: AE 223 with "C" or better, Co-req: MATH 344 or MATH555	3
ME 250 + ME 251 Materials Engineering & Lab Pre-req: CHEM 211 & MATH 242 both with "C" or better	4	MATH 451 Computational Mathematics Using MATLAB Pre-req: MATH 243 with "C" or better	3
Total Hours	17	Total Hours	17

JUNIOR			
FALL	Hr	SPRING	Hr
PHIL 385 Engineering Ethics Pre-req: Junior or senior standing	3	IME 761 Robot Programming and Applications Pre-req: IME 561 with "C" or better (Offered Spring only)	3
ECE 282 + ECE 282L Circuits I Co-req: MATH 243	4	IME 558 + IME 558L Manufacturing Methods II Pre-req: IME 258 & ME 250 with "C" or better (Offered Spring only)	4
IME 561 Applied Control Systems Pre-req: MATH 555 with "C" or better or Instructor Consent (Offered Fall only)	3	IME 553 Production Systems Pre-req: IME 254 with "C" or better, Co-req: IME 255 (Offered Fall and Spring only)	3
IME 425 Kinematic and Dynamic Design Pre-req: IME 222, IME 258, and PHYS 313 with "C" or better (Offered Fall only)	3	IME 625 Robust Product Design Pre-req: AE 333 & IME 425 with "C" or better (Offered Spring only)	3
IME 554 Statistical Quality Control Pre-req: IME 254 (Offered Fall only)	3	IME 788 Rapid Prototyping and 3D Printing Pre-req: IME 258 + Lab with "C" or better or Instructor Consent (Offered Spring only)	3
Engineer of 2020 Requirement (1 of 3) See notes		Engineer of 2020 Requirement (2 of 3) See notes	
Total Hours	16	Total Hours	16

SENIOR			
FALL	Hr	SPRING	Hr
General Education* Fine Arts Note a	3	Technical Elective Note b	3
General Education* Social/Behavioral Science Note a	3	Technical Elective Note b	3
Technical Elective Note b	3	Technical Elective Note b	3
Technical Elective Note b	3	IME 590 Industrial Engineering Design I Pre-req: IME 553 with "C" or better and Department Consent (Offered Fall and Spring only)	3
Technical Elective Note b	3		
Engineer of 2020 Requirement (3 of 3) See notes			
Total Hours	15	Total Hours	12

SUMMER	Hr
IME 676 Aircraft Manufacturing and Assembly Pre-req: IME 258 with "C" or better (Offered Summer only)	3

Notes: Students admitted after fall 2007 must fulfill the Engineer 2020 requirements.

Last Updated: 4/7/2021

* May be available as an online or hybrid class.

a. Courses must be from an approved list which appears in the Schedule of Courses and/or the community college Transfer Guides. FYS options exclude C5 attribute. Social/Behavioral Science (B5). Fine Arts (A3).

b. Check with Advisor for specific courses to fulfill electives.

Product Design and Manufacturing Engineering Prerequisite Structure

Fall 2021

