

# Product Design and Manufacturing Engineering



Catalog Term: Fall 2020

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 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 and IME 222L Engineering Graphics & Lab Pre-req: MATH 123 or equivalent with "C" or better	3	First-Year Seminar* Recommended: WSUE102C Community Connection <b>Note a</b>	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

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 and IME 258L Manufacturing Methods I Pre-req: MATH 123 & IME 222 both with "C" or better	4	PHYS 314+316 Physics for Scientist II & Lab Pre-req: MATH 243 with "C" or better and PHYS 313	5
AE 223 Statics Pre-req: PHYS 313 with "C" or better, Co-req: MATH 243	3	IME 255 * Engineering Economy Coreq: MATH 242	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
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>17</b>

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
EE 282 Circuits I Co-req: MATH 243	4	IME 558 and 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	3
Engineer of 2020 Requirement (1 of 3) See notes		Engineer of 2020 Requirement (2 of 3) See notes	
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

SENIOR			
FALL	Hr	SPRING	Hr
General Education* Fine Arts <b>Note a</b>	3	Technical Elective <b>Note b</b>	3
General Education* Social/Behavioral Science <b>Note a</b>	3	Technical Elective <b>Note b</b>	3
Technical Elective <b>Note b</b>	3	Technical Elective <b>Note b</b>	3
Technical Elective <b>Note b</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 <b>Note b</b>	3		
Engineer of 2020 Requirement (3 of 3) See notes			
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>12</b>

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: 2/14/2020

\* May be available as an online or hybrid class.

P: Prerequisite, see catalog

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.