Product Design and Manufacturing Engineering

WSU WICHITA STATE UNIVERSITY | COLLEGE OF ENGINEERING

Catalog Term: Fall 2023   **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	General Education* First-Year Seminar* *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 Pre-req: MATH 242 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: Instructor Consent & IME 258 + Lab with "C" or better (Offered Spring only)	3
Engineer+ Requirement (1 of 3) See notes		Engineer+ 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
IME 590 Industrial Engineering Design I Pre-req: IME 553 & PHIL 385 with "C" or better and Department Consent (Offered Fall and Spring only)	3	IME 690 Industrial Engineering Design II Pre-req: IME 590 & CHEM 211 with "C" or better and Department Consent (Offered Fall and Spring only)	3
Technical Elective *Note b*	3		
Engineer+ Requirement (3 of 3) See notes			
Total Hours	**15**	**Total Hours**	**12**

SUMMER

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+ requirements.

* 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.

Last Updated: 8/21/2023

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