

Industrial Engineering

Catalog Term: Fall 2024

Total credit hours: 125

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 and 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
General Education* First-Year Seminar* Note a	3	PHYS 313 Physics for Scientist I Co-req: MATH 243 with "C" or better	4
IME 222 + IME 222L Engineering Graphics P: MATH 123 or equivalent with "C" or better	3	IME 258 + IME 258L Manufacturing Methods I P: MATH 123 & IME 222 both with "C" or better (Offered Fall and Spring only)	4
Total Hours	14	Total Hours	16

SOPHOMORE			
FALL	Hr	SPRING	Hr
COMM 111 * Public Speaking	3	IME 255 * Engineering Economy Coreq: MATH 242 (Offered Fall and Spring only)	3
IME 254 Engineering Probability and Statistics I Pre-req: MATH 242 with "C" or better (Offered Fall and Spring only)	3	IME 452 Work Systems Pre-req: IME 254 with "C" or better Co-req: IME 255 (Offered in Spring only)	3
PHYS 314 Physics for Scientist II Pre-req: MATH 243 with "C" or better & PHYS 313 (Offered Fall and Spring only)	4	IME 524 Descriptive Analytics Pre-req: IME 254 with "C" or better (Offered in Spring only)	3
MATH 511 Linear Algebra Pre-req: MATH 243 with "C" or better	3	IME 550 Operations Research I Pre-req: MATH 511 with "C" or better (Offered Fall and Spring only)	3
CS 211 Intro to Program. Pre-req: MATH 111 or MIS 310 Fund. of Business App. Pre-req: Junior & Advanced standing or MATH 451 Comp. Math using MATHLAB Pre-req: MATH 243 with "C" or better	3	IME 553 Production Systems Pre-req: IME 254 with "C" or better Co-req: IME 255 (Offered Fall and Spring only)	3
Total Hours	16	Total Hours	15

JUNIOR			
FALL	Hr	SPRING	Hr
CHEM 211 + L General Chemistry I Co-req: MATH 111	5	IME 549 Industrial Ergonomics Pre-req: IME 254 with "C" or better (Offered Fall and Spring only)	3
IME 554 Statistical Quality Control Pre-req: IME 254 (Offered Fall only)	3	IME 565 System Simulations Co-req: IME 524 & IME 553 (Offered Spring only)	3
IME 556 Information Systems Pre-req: CS 211, MIS 310, or MATH 451 with "C" or better (Offered Fall only)	3	PHIL 385* Engineering Ethics Pre-req: Junior or senior standing	3
IME 563 Facilities Planning Pre-req: IME 452, IME 550, & IME 553 with "C" or better (Offered Fall only)	3	Technical Elective* Note b	3
IME 650 Operations Research II Pre-req: IME 550 with "C" or better (Offered Fall only)	3	Technical Elective* Note b	3
Engineer+ Requirement (1 of 3) See notes		Engineer+ Requirement (2 of 3) See notes	
Total Hours	17	Total Hours	15

SENIOR			
FALL	Hr	SPRING	Hr
General Education* Arts & Humanities (not PHIL) Note a	3	General Education* Institutionally Designated/Diversity Note a	3
General Education* Social/Behavioral Science Recommend ECON 201 Note a	3	General Education* Social/Behavioral Science (not ECON) Note a	3
IME 590 Industrial Engineering Design I Pre-req: IME 553 with "C" or better, Department Consent; & Co-req: PHIL 385 (Offered Fall and Spring only)	3	IME 690 Industrial Engineering Design II Pre-req: IME 590 with "C" or better and Department Consent; & Co-req: CHEM 211 (Offered Fall and Spring only)	3
Technical Elective* Note b	3	Technical Elective* Note b	4
Technical Elective* Note b	3	PHYS 315 University Physics Lab I or PHYS 316 University Physics Lab II	1
Technical Elective* Note b	3	Engineer+ Requirement (3 of 3) See notes	
Total Hours	18	Total Hours	14

Notes: Students admitted after fall 2007 must fulfill the Engineer+ requirements. www.wichita.edu/engr+

* May be available as an online or hybrid class.

Last Updated: 5/8/2024

a. Courses must be from approved general education list which appears in the Schedule of Courses and/or the community college Transfer Guides. All incoming freshman are required to take one First-Year Seminar as part of their General Education program. Students who are exempt from First-Year Seminar requirements may take an additional GE elective. Social/Behavioral Science (B5) - recommended courses are ID300, ID301, ENTR310, ECON201. Fine Arts (A3) - recommended course is ARTE303.

b. At least 9 credit hours of technical elective courses (including track and additional electives) must be from the ISME department. There are 3 tracks from which the students may take technical electives. At least three of the technical elective courses must be from the same track.

Track 1 - Manufacturing, Robotics & Automation: IME 425, IME 557, IME 558, IME 561, IME 625, IME 676, IME 758, IME 761, IME 762, IME 767, IME 775, IME 780AM, IME 788, ME 250 or ME 672

Track 2 - Supply Chain & Analytics: IME 664, IME 734, IME 754, IME 755, IME 765, IME 780AL, IME 780AN, IME 783, DS 725 or IB 400

Track 3 - Systems Engineering: IME 664, IME 749, IME 755, IME 759, IME 764, IME 767, IME 780AL or MGMT 460

Other courses that may be used as technical electives:

College of Engineering courses from other programs may also be used as technical electives with written preapproval of the ISME faculty advisor. Up to 3 credit hours of IME 481N/ IME 481P could be used as technical electives.

Non-engineering technical electives: ACCT 210, ACCT 220, ACCT 310, ACCT 420, ACCT 430, BLAW 431, ECON 201, ECON 202, ECON 660, ENTR 310, ENTR 440, IB 333, MGMT 360, MGMT 450, MGMT 462, MGMT 463, MGMT 662, MIS 600 or MIS 605.

Manufacturing Minor, 15 credits: IME 222+L, IME 258, IME 425, IME 558, IME 561, IME 625, IME 676, IME 761, IME 762, IME 775, IME 780AM, AE 333, ME 250+251, and ME 672. At least 12 credit hours must be taken at WSU with at least a 2.250 GPA in those courses.

Other courses with permission from the chair of the ISME Department.