

## Industrial Engineering 2022-2023

Year	Course	Course	Course	Course	Course	Course
1-1	COMM 1050U Technical Communications	ENGR 1015U Introduction to Engineering	MATH 1010U Calculus I	MATH 1850U Linear Algebra for Engineers	PHY 1010U Physics I	
1-2	CHEM 1800U Chemistry for Engineers (Credit restrictions: CHEM 1010U/CHEM 1020U/CHEM 1110U)	ENGR 1025U Engineering Design (ENGR 1015U)	ENGR 1200U Introduction to Programming for Engineers (Credit Restriction: INFR 1100U)	MATH 1020U Calculus II (MATH 1010U)	PHY 1020U Physics II (PHY 1010U)	SSCI 1470U Impact of Science and Technology on Society
2-1	MECE 2230U Statics (MATH 1020U, PHY 1010U)	MECE 2310U Concurrent Engineering and Design (ESNS 1200U or ENGR 1025U)	SOFE 2710U Object Oriented Programming and Design (ENGR 1200U)	MATH 2860U Differential Equations for Engineers (MATH 1020U, Coreq: MATH 1850U)	MANE 2220U Structure and Properties of Materials (CHEM 1800U)	Liberal Studies Elective
2-2	INSE 2210U Operations Research I (Deterministic) (MATH 1010U, MATH 1850U)	ELEE 2790U Electric Circuits (PHY 1020U, MATH 1020U, MATH 1850U)	MANE 3460U Industrial Ergonomics	ENGR 2100U Computational Engineering Applications (ENGR 1200U, MATH 1850U, MATH 2860U)	MECE 2420U Solid Mechanics I (MECE 2230U)	STAT 2800U Statistics and Probability for Engineers (MATH 1020U)
3-1	INSE 3110U Operations Research II (Stochastic) (INSE 2210U, STAT 2800U)	INSE 3140U Lean Production Systems Engineering (MECE 2310U, Co-requisite: MANE 3190U)	INSE 3115U Workplace and Facilities Design (MECE 2310U, MANE 3460U, Co-requisites: MANE 3190U & INSE 3140U)	INSE 3142U Industrial Internet of Things (ENGR 1200U, SOFE 2710U)	ENGR 3150U (Applied) Artificial Intelligence and Machine Learning (STAT 2800U, SOFE 2710U)	MANE 3190U Manufacturing and Production Processes (MANE 2220U)
3-2	ENGR 3360U Engineering Economics	MANE 3300U Integrated Manufacturing Systems (MANE 3190U)	MANE 4045U Quality Control (STAT 2800U)	INSE 3245U Industrial Data Analytics (STAT 2800U, SOFE 2710U, ENGR 3150U, INSE 3140U)	METE 4200U Industrial Automation	ENGR 3215U Engineering Project Management (Co-requisite: ENGR 3360U)
4-1	ENGR 4760U Ethics, Law and Professionalism for Engineers	ENGR 4950U Capstone Systems Design for Mechanical, Automotive, Mechatronics and Manufacturing Engineering I (Successful completion of all non-elective courses in year three)	INSE 4170U Human-System Integration (MANE 3300U or MANE 3190U, MANE 3460U, METE4200U)	MANE 4390U Modeling Manufacturing Systems (MANE 3300U)	Engineering Elective	
4-2	ENGR 4951U Capstone Systems Design for Mechanical, Automotive, Mechatronics and Manufacturing Engineering II (ENGR 4950U)	MANE 4015U Reliability and Maintenance (STAT 2800U)	INSE 4248U Industrial Cyber-Physical Systems (MANE 3300U or MANE 3190U, INSE 3142U, ENGR 3150U)	Engineering Elective	Liberal Studies Elective	