

2022 Industrial Engineering Curriculum

Category		Course No.	Course Name	Credits	Year, Term
Major Course	Basic	IE1500214	General Physics(I)	3-3-0	1-1
		IE1500039	General Physics Laboratory(I)	1-0-2	1-1
		IE1500570	Engineering Linear Algebra	3-3-0	1-1
		IE1600777	Introduction to Industrial Engineering	1-0.5-1	1-1
		IE1500379	Calculus in Engineering(I)	3-3-0	1-2
		IE2900176	Discrete Mathematics	3-3-0	1-2
		IE1600732	Computer Aided Design	2-1-2	1-2
		IE1600795	Data Structure and Algorithm	3-3-0	2-1
		IE2400210	Engineering Statistics(I)	3-3-0	2-1
		IE2400211	Engineering Statistics(II)	3-3-0	2-2
	Required	IE2400216	Operations Research(I)	3-3-0	2-1
		IE2400212	Manufacturing Engineering	3-2-2	2-1
		IE2400217	Operations Research(II)	3-3-0	2-2
		IE3400081	Production and Operations Management	3-3-0	2-2
		IE3500728	Work Design	3-3-0	2-2
		IE3400078	Database	3-3-0	3-1
		IE2700623	Data Mining	3-3-0	3-1
		IE2700565	Supply Chain Management	3-3-0	3-1
		IE3500729	Human Factors Engineering	3-3-0	3-1
		IE2400237	Quality Control and management	3-3-0	3-2
		IE2700642	Systems Simulation	3-3-0	3-2
		IE3400308	Capstone Design	3-2-2	4-1
	Elective	IE1500845	General Chemistry(I)	3-3-0	1-1
		IE3600657	Introduction to Optimization	3-3-0	1-2
		IE3600658	Machine Learning Mathematics	3-3-0	1-2
		IE3600659	Digital Transformation	3-3-0	1-2
		IE1500380	Calculus in Engineering(II)	3-3-0	2-1
		IE3400084	Engineering Economy	3-3-0	2-1
		IE3600670	Creative Engineering Design	3-3-0	2-1
		IE3300034	Management of Technology	3-2-2	2-1
		IE3500627	Industrial Data Scienc	3-3-0	2-2
		IE3600660	Applications of Manufacturing Engineering	3-3-0	2-2
		IE3400241	Probabilistic Theory	3-3-0	2-2
		IE3400649	Industrial Safety Engineering	3-3-0	3-1
		IE3500266	Undergraduate Research(I)	3-3-0	3-1
		IE3500452	Linear Models in Data Science	1-1-0	3-1
		IE3500732	Production Automation	3-3-0	3-1
		IE3600661	Fintech and Industry	3-3-0	3-1
		IE2700699	Manufacturing System Engineering	3-3-0	3-1
		IE3000627	Management Information Systems	3-3-0	3-2
		IE3500267	Undergraduate Research(II)	3-3-0	3-2
		IE3500730	Operations Analytics	1-1-0	3-2
		IE3500731	Experimental Design and Analysis	3-3-0	3-2
		IE3600168	Introduction to Artificial Intelligence	3-3-0	3-2
		IE3600662	Game Theory and Application	3-3-0	3-2
		IE3600663	Linear and Nonlinear Programming	3-3-0	3-2
		IE2700581	Reliability Engineering	3-3-0	3-2
		IE3400653	Optimization and Computational Intelligence	3-3-0	4-1
		IE3500735	Smart Manufacturing	3-3-0	4-1
		IE3600432	Facilities Planning & Material Handling	3-3-0	4-1
		IE3600664	Optimization Models and Application	3-3-0	4-1
		IE3600665	Deep Learning	3-3-0	4-1
		IE3600666	Simulation Design and Analysis	3-3-0	4-1
		IE3600667	Production Information System	3-3-0	4-1
		IE3600668	Introduction to Financial Engineering	3-3-0	4-1
		IE3600671	Smart Service Design	3-3-0	4-1
		IE2700617	Logistics Systems	3-3-0	4-1
		IE3600669	Introduction to Reinforcement Learning	3-3-0	4-2
		IE3600672	User Experience Design	3-3-0	4-2