

# Industrial and Manufacturing Engineering Department

## Tentative Course Offerings (AY 2026 - 2027) (Subject to change) version 12.2025

Keys: numbers in each quarter means number of sections to be offered, R = required course, SR: Selective Required, TE= Technical Elective.

Course No.	Units	IE (26-28)	MfgE (26-28)	Description	Fall 2026	Spring 2027
IME 1101	1	R	R	Introduction to Industrial and Manufacturing Engineering	4	
IME 1140	1	R	R	Technical Graphics Communication for Design and Manufacturing	15	
IME 1141	1	SR	R	Introduction to Metal Casting and Prototyping	2	11
IME 1142	1	SR	R	Materials Joining	4	7
IME 1143	2	R	R	Introduction to Design and Manufacturing	15	13
IME 1149	1			Introduction to Manufacturing Processes: Metal Casting and Joining		
IME 1156	2	SR	R	Introduction to Modern Electronics Manufacturing		2
IME 1223	4	R	R	Process Improvement Fundamentals	2	2
IME 2200				Special Problems for Undergraduates	1	1
IME 2212	4	R		Introduction to Enterprise Analytics and Database Systems	1	1
IME 2243	2		R	Intermediate Design and Manufacturing		1
IME 2315	2	R	R	Financial Decision Making for Engineers	2	2
IME 3302	4	R		Operations Research and Management	1	1
IME 3303	3	TE	TE	Project Organization and Management	1	1
IME 3320	3			Human Factors and Technology	1	
IME 3326	4	R		Statistical Decision-Making and Quality Control	1	1
IME 3327	4		R	Test Design and Analysis in Manufacturing Engineering	1	1
IME 3330	4		R	Fundamentals of Manufacturing Engineering	1	1
IME 3331	4	TE	TE	Intermediate Metal Casting		1
IME 3332	1	TE	TE	Advanced Materials Joining	1	
IME 3336	3		TE	Advanced Computer Aided Manufacturing		1
IME 3356	4	TE	R	Manufacturing and Process Automation	1	1
IME 3410	4	R	TE	Production Planning and Control Systems	1	1
IME 3420	4	R	TE	Process and System Simulation	1	1
IME 3443	4	R	TE	Facilities Design and Warehousing		2
IME 4319	3	R	TE	Human Factors and Ergonomics in Engineering and Systems Design	2	1
IME 4372	4	R		Applications of Enterprise Analytics	1	1
IME 4400		TE	TE	Special Problems for Advanced Undergraduates	1	1
IME 4401	1	TE	TE	Sales Engineering		1
IME 4403	3	TE		Software Product Management		1
IME 4408	4	TE	TE	Systems Engineering		1
IME 4415	4	TE	TE	Service Enterprises Engineering and Management		

IME 4417	4	R	TE	Supply Chain and Logistics Management	1	1
IME 4418	4	TE	R	Product and Process Development	1	
IME 4421	2	TE		Engineering Management		
IME 4424	4	TE		Industrial Engineering in Healthcare		1
IME 4428	3	TE	TE	Engineering Metrology		
IME 4432	3	TE	TE	Additive Manufacturing	1	1
IME 4435	3	TE	TE	Reliability for Design and Testing		
IME 4441	1	TE	TE	Engineering Supervision	1	1
IME 4450	4		R	Computer-Aided Manufacturing and Process Analysis		1
IME 4456	3	TE	TE	Sensing Systems and the Industrial Internet of Things		
IME 4460	3	TE	TE	Value Chain Analysis		
IME 4461	2	R	R	Senior Project - Design I	4	
IME 4462	2	R	R	Senior Project - Design II		4
IME 4470		TE	TE	Special Advanced Topics		
IME 4471		TE	TE	Special Advanced Laboratory		
IME 4495				Cooperative Education Experience	1	1
<b>Graduate Program</b>		<b>MS EMGT</b>	<b>MS IE</b>			
IME 5500		TE	TE	Individual Study	1	1
IME 5503	3	SR 1	R	Applied Statistical Methods in Engineering	1	
IME 5507	2	R	R	Graduate Seminar	1	
IME 5510	3	SR 5		Model-Based Systems Engineering	1	
IME 5520	3	SR 5		Advanced Information Systems for Operations		1
IME 5527	3	SR 3		Design of Experiments for Industrial Applications		1
IME 5535	3	SR 4		Change Management for Engineering Leaders		1
IME 5541	3	SR 3	R	Advanced Operations Research	1	
IME 5543	3	SR 3		Applied Human Factors		1
IME 5544	3	SR 2		Advanced Engineering Economy	1	
IME 5545	3	SR 3	R	Advanced Simulation		1
IME 5556	3	SR 4		Technological Project Management	1	
IME 5565	3	SR 1	R	Predictive Data Analytics for Engineers		1
IME 5570				Special Advanced Topics		
IME 5571				Special Advanced Laboratory		
IME 5577	3	SR 2		Engineering Entrepreneurship	1	1
IME 5580	3	SR 5		Manufacturing Systems		
IME 5598		R	SR	Project	1	1
IME 5599			SR	Thesis	1	1