

Mechanical Engineering Department
Projection of Graduate Course Offerings from 2024 to 2027

Course Code	Course Title	2024-2025		2025-2026		2026-2027	
		1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester
INME 5005	Lubrication	X		X		X	
INME 5007	Solar Energy Application	This course is subject to demand and availability of resources.					
INME 5008	Corrosion	X		X		X	
INME 5010	Design Thinking	X		X		X	
INME 5015	Selected Topics in Mechanical Engineering	X	X	X	X	X	X
INME 5018	Materials Failure Analysis		X		X		X
INME 5025	Metals Fatigue		X		X		X
INME 5510	Introduction to Finite Element Analysis		X		X		X
INME 5520	Introduction to Computational Fluid Dynamics		X		X		X
INME 5530	Introduction to Multibody Dynamics Modeling	This course is subject to availability of resources.					
INME 5707	Gas Turbine System Operation	X		X		X	
INME 5717	Aircraft Structural Analysis and Design		X		X		X
INME 5995	Special Problems	X		X		X	
INME 5996	Special Problems II		X		X		X
INME 5997	Selected Topics II	This course is subject to demand and availability of resources.					
INME 6001	Advanced Thermodynamics I	X		X		X	
INME 6002	Advanced Thermodynamics II	This course is subject to demand and availability of resources.					
INME 6005	Heat Conduction	This course is subject to demand and availability of resources.					
INME 6006	Radiation Heat Transfer	This course is subject to demand and availability of resources.					
INME 6007	Advanced Air Conditioning	This course is subject to demand and availability of resources.					
INME 6008	Advanced Metal Cutting		X		X		X
INME 6009	Advanced Manufacturing Processes	This course is subject to demand and availability of resources.					
INME 6010	Advanced Concepts in Fluid Mechanics and Convective Heat Transfer		X		X		X

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INME 6015	Dislocation Theory	This course is subject to demand and availability of resources.					
INME 6016	Mechanical Metallurgy	This course is subject to demand and availability of resources.					
INME 6017	Seminar	X	X	X	X	X	X
INME 6019	Fracture Mechanics		X		X		X
INME 6021	Engineering Systems Design I	X		X		X	
INME 6022	Engineering Systems Design II	This course is subject to demand and availability of resources.					
INME 6024	Numerical Analysis of Transport Phenomena		X		X		X
INME 6025	Gas Dynamics	This course is subject to demand and availability of resources.					
INME 6026	Boiling and Condensation Heat Transfer	This course is subject to demand and availability of resources.					
INME 6030	Mechanics of Composite Materials		X		X		X
INME 6035	Conservation and Alternative Energy Systems	This course is subject to demand and availability of resources.					
INME 6036	Control System Design and Applications	This course is subject to demand and availability of resources.					
INME 6037	Finite Element Analysis		X		X		X
INME 6039	Vibrations		X		X		X
INME 6040	Advanced Kinematics	This course is subject to demand and availability of resources.					
INME 6045	Automatic Assembly Systems	This course is subject to demand and availability of resources.					
INME 6046	Design for Manufacture	This course is subject to demand and availability of resources.					
INME 6047	Intermediate Fluid Mechanics	This course is subject to demand and availability of resources.					
INME 6048	Continuum Mechanics	X		X		X	
INME 6055	Conduction and Radiation Heat Transfer	X		X		X	
INME 6065	Principles of Biomedical Engineering	X		X		X	
INME 6099	Research	X	X	X	X	X	X
INME 6107	Smart Materials and Devices	X		X		X	
INME 6115	Biomaterials		X		X		X
INME 6135	Tissue Engineering	This course is subject to demand and availability of resources.					

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INME 6160	Fundamentals of Micro and Nanofabrication	X		X		X	
INME 6165	Design of Microfluidic Systems	X		X		X	
INME 6170	Biomedical Micro-Electro-Mechanical Systems (BioMEMS)		X		X		X
INME 6748	Energy and Variational Principles in Applied Mechanics	This course is subject to demand and availability of resources.					
INME 6810	Mechanical Fundamentals of Electronic Packaging	This course is subject to demand and availability of resources.					
INME 6995	Selected Topics	This course is subject to demand and availability of resources.					
INME 6998	Engineering Project	This course is subject to demand and availability of resources.					
INME 8000	Doctoral Dissertation	X	X	X	X	X	X
INME 8017	Doctoral Seminar	X	X	X	X	X	X
INME 8995	Advanced Problems in Mechanical Engineering	This course is subject to demand and availability of resources.					
INME 8997	Advanced Topics in Mechanical Engineering	This course is subject to demand and availability of resources.					

****The offer of all courses in this table is subject to demand and availability of resources. Please ask the Mechanical Engineering Department for course offerings per semester.***

*****This table may be subject to change.***