

# MATHEMATICS AND ENGINEERING, APPLIED MECHANICS (M6): TECHNICAL ELECTIVES

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## List I

Code	Title	Units
MTHE 353	Probability II	3.00
MTHE 406	Introduction To Coding Theory	3.00
MTHE 418	Number Theory & Cryptography	3.00
MTHE 434	Optimization Theory with Applications to Machine Learning	3.50
MTHE 472	Optimization and Control of Stochastic Systems	3.50
MTHE 437	Topics In Applied Mathematics	3.50
MTHE 439	Lagrangian Mechcanics, Dynamics Contro	5.00
MTHE 457	Statistical Learning	3.00
MTHE 455	Stochastic Processes & Applications	3.50
MTHE 474	Information Theory	3.50
MTHE 477	Data Compression and Source Coding: Theory and Algorithms	3.00

## List II

Code	Title	Units
MECH 346	Heat Transfer	3.50
MECH 420	Vibrations	3.50
MECH 424	Sustainable Product Design	3.50
MECH 435	Internal Combustion Engines	3.50
MECH 439	Turbomachinery	3.50
MECH 441	Fluid Mechanics III	3.50
MECH 444	Computational Fluid Dynamics	3.50
MECH 448	Compressible Fluid Flow	3.50
MECH 452	Mechatronics Engineering	5.00
MECH 455	Computer Integrated Manufacturing	3.50
MECH 456	Introduction To Robotics	3.50
or ELEC 448	Introduction To Robotics	
MECH 465	Computer Aided Design	3.50
MECH 480	Airplane Aerodynamics and Performance	3.50
MECH 482	Noise Control	3.50
MECH 492	Biological Fluid Dynamics	3.50
MECH 494	Kinematics Of Human Motion	3.50
MECH 495	Ergonomics And Design	3.50
MECH 496	Musculoskeletal Biomechanics	3.50
MECH 430	Thermal Systems Design	4.00
MINE 472	Mining Systems, Automation, and Robotics	3.50