## Mechanical Engineering-Engineering Mechanics Senior Technical Electives 2010-11

Design	Cr	Sem	Manufacturing/Industrial	Cr	Sem
MEEM 4403 Computer-Aided Design Method	4	F,S,Su	MEEM 4610 Advanced Machining Processes	3	S
MEEM 4405 Introduction to Finite Element Method	3	F,S,Su	MEEM 4630 Human Factors	3	F
MY 4155 Composite Materials	3	S	MEEM 4635 Design with Plastics	3	S
MY 4800 Materials and Process Selection	3	S	MEEM 4650 Quality Engineering	3	F
			MEEM 4655 Production Planning	3	S
Dynamic Systems			MEEM 4660 Data Based Modeling & Control	3	F
MEEM 4701 Analysis and Experimental Modal Analysis	3	F	MEEM 4685 Environmentally Responsible Design and Manufacturing	3	S
MEEM 4705 Introduction to Robotics and Mechatronics	4	S	MEEM 5653 Life Cycle Engineering	3	F
MEEM 4720 Space Mechanics	3	F	MEEM 5655 Lean Manufacturing	3	S
MEEM 4750 Distributed Embedded Control Systems	3	S	MEEM 5670 Experimental Design for Engineering	3	F
MEEM 5700 Dynamic Measurements & Signal Analysis	4	F	MEEM 5680 Optimization	3	S
MEEM 5701 Intermediate Dynamics	3	F	MY 4130 Principles of Metal Casting	3	F
MEEM 5702 Analytical Vibroacoustics	3	F			
MEEM 5703 Experimental Methods in Vibroacoustics	4	S			
MEEM 5715 Linear Systems Theory and Design	3	S			
Energy/ThermoFluids			Solid Mechanics		
MEEM 4200 Principles of Energy Conversion	3	F	MEEM 4150 Intermediate Mechanics of Materials	3	F
MEEM 4210 Computational Methods in Thermal Sciences	3	F	MEEM 4160 Fundamentals of Experimental Stress Analysis	3	F
MEEM 4220 Internal Combustion Engines I	3	S	MEEM 4170 Failure of Mechanics of Materials	3	S
MEEM 4250 Heating/Ventilation/Air Conditioning	3	S	MEEM 4180 Engineering Biomechanics	3	F
MEEM 4260 Fuel Cell Technology	3	F	MEEM 5110 Continuum Mechanics/Elasticity	3	F
MEEM 4295 Intro to Propulsion Systems for Hybrid Electric Drive Vehicles	3	F	MEEM 5130 Nanotechnology	3	F
MEEM 4296 Intro to Propulsion Systems for Hybrid Electric Drive Vehicles Lab	1	F	MEEM 5150 Advanced Mechanics of Materials	3	S
MEEM 4990 Compressible Flow and Gas Dynamics	3	S	MEEM 5170 Finite Element & Variational Methods in Engineering	3	F
MEEM 5200 Advanced Thermodynamics	3	F			
MEEM 5210 Advanced Fluid Mechanics	3	F			
MEEM 5230 Advanced Heat Transfer	3	S			
MEEM 5240 Computational Fluid Dynamics for Engineers	3	S			
MEEM 5270 Advanced Combustion	3	S			
		<u> </u>			
MEEM 5295 Advanced Propulsion Systems for Hybrid Electric Drive Vehicles	3	S			

Nine (9) credits of technical electives are required for the BSME.

Six (6) credits of technical electives are required for the BSME – Enterprise Concentration.

Seniors with a GPA of 3.0 or higher are encouraged to consider 5000-level (graduate) courses as part of their technical electives.

Faculty/advisor approval required prior to enrolling in graduate level courses.

Contact the ME Advising Center for questions regarding technical electives.