

4 CORE AREAS (Required)	FS17	SP17	FS16	SP16	FS15	SP15
Area 1: Materials and Manufacturing Processes:						
ME 3653 Manufacturing	✓	✓	✓	✓	✓	✓
ME 5236 Fracture Mechanics		✓		✓		✓
ME 5282 Introduction to Composite Materials & Structures		✓		✓		✓
MET 5810 Principles of Engineering Material	✓		✓		✓	
MSE 5517 Materials Selection in Mechanical Design						
Area 2: Process, Assembly and Product Engineering:						
EMgt 5515/ME 5757 Integrated Product and Process Design	✓	✓	✓	✓	✓	✓
EMgt 5516 Integrated Product Development						
ME 5708 Rapid Product Design and Optimization	✓		✓		✓	
ME 5763 Principles and Practice of Computer Aided Design	✓		✓		✓	
ME 6663 Advanced Digital Design and Manufacturing		✓		✓		✓
Area 3: Manufacturing Competitiveness:						
AE/ME 5760 Probabilistic Engineering Design		✓		✓		✓
EMgt 5710 Introduction to the Six Sigma Way	✓		✓		✓	
EMgt 5613 Value Analysis		✓		✓		✓
EMgt 5714 Statistical Process Control						
ERP 5110 ERP System Design and Implementation		✓		✓		✓
Area 4: Manufacturing Systems Design:						
ME 5449 Robotic Manipulators and Mechanisms	✓		✓		✓	
ME 5653 Computer Numerical Control of Manufacturing Processes	✓	✓	✓	✓	✓	✓
ME 5655 Automation in Manufacturing						
ME 5656 Design for Manufacture		✓		✓		✓
ME 5478 Mechatronics		✓		✓		✓
ME 6659 Advance Topics in Design and Manufacturing		✓		✓		✓