



**Masters of Science in Mechanical Engineering (MMENG)**

**First Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
MENG530	Mechanical Vibrations II	3		
MENG525	Engineering Thermodynamics II	3		
MENG510	Stress Analysis	3		
MENG520	Fluid Mechanics II	3		
Total		12		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
MENG550	Mechanical Systems II	3		
MENG560	Machine Design I	3		
MENG555	Introduction To Finite Element Analysis	3		MENG560 - MENG555L
MENG555L	Introduction To Finite Element Analysis Lab	1		MENG555
MENG580	Advanced Heat Transfer	3		
Total		13		

**Second Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
MENG601	Hydraulic and Pneumatic Systems	3		
	Elective	1		
	Elective	3		
MENG610	Machine Design II	3	MENG560	
MENG695A	Master Thesis(Part I)	3	MENG555 - MENG525 - MENG510 - MENG550 - MENG560 - MENG530 - MENG520	
Total		13		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
	Elective	1		
	Elective	3		
	Elective	3		
	Elective	3		
	Elective	1		
MENG695B	Master Thesis(Part II)	3	MENG695A	
Total		14		

**Major Elective Courses**

Code	Title	Credits	Prerequisites	Corequisites
MENG580	Nonlinear Fracture Mechanics	3		
MENG585	Solar Energy & Thermal Systems	3	MENG525 - MENG520	
MENG590	Theory of Solid Continua	3		
MENG591	Automotive Engineering Fundamentals	3	MENG550	MENG591L
MENG591L	Automotive Engineering Fundamentals Lab	1	MENG550	MENG591
MENG595	Turbomachinery	3	MENG525 - MENG520	MENG595L

MENG595L	Turbomachinery Lab	1	MENG525 - MENG520	MENG595
MENG600	Control Theory for Mechanical Engineers	3		
MENG605	Aerodynamics	3		
MENG611	Vehicle Thermal Management	3		
MENG615	Refrigeration & Air conditioning	3		MENG520 - MENG525 - MENG615L
MENG615L	Refrigeration & Air conditioning Lab.	1		MENG615
MENG620	Theory of Elasticity	3		
MENG621	Automotive Body structure	3		
MENG625	Gas & Steam Turbines	3		
MENG630	Theory of Plasticity	3		
MENG631	Finite Element Methods for Crashworthiness and Impact Analysis	3		
MENG631L	Finite Element Methods for Crashworthiness and Impact Analysis Lab	1		
MENG640	Theory of Shells and Plates	3		
MENG641	Vehicle Dynamics	3		
MENG641L	Vehicle Dynamics Lab	1		
MENG645	Advanced Refrigeration Cycle	3		
MENG650	Advanced Finite Methods in Mechanics	3		
MENG650L	Advanced Finite Methods in Mechanics Lab	1		
MENG655	Power Plant Engineering	3	MENG525 - MENG520	MENG655L
MENG655L	Power Plant Engineering Lab	1		MENG655