

LEBANESE INTERNATIONAL UNIVERSITY- SCHOOL OF ENGINEERING

Graduation requirements: Completion of a minimum of 52 credit-hours as tabulated below

Graduate Program – Year I (25 Credits)

Fall Semester (12 Credits-Hours)

Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG510	Stress Analysis	3		
MENG520	Fluid Mechanics II	3		
MENG525	Engineering Thermodynamics II	3		
MENG530	Mechanical Vibrations II	3		

Spring Semester (13 Credit-Hours)

Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG550	Mechanical Systems II	3		
MENG555	Introduction to Finite Element Analysis	3		MENG555L
MENG555L	Introduction to Finite Element Analysis Lab	1		MENG555
MENG560	Machine Design I	3		
MENG580	Advanced Heat Transfer	3		

Graduate Program – Year II (27 Credits)

Fall Semester (13 Credit-Hours)

Course Code	Course Title	Crs.	Prerequisites	Corequisites
-------------	--------------	------	---------------	--------------

MENG601	Hydraulic & Pneumatic Systems	3	MENG570	
MENG610	Machine Design II	3	MENG560	
MENG***	Major Elective	3		
MENG ***	Major Elective	1		
MENG695	Master Thesis (Part I)	3		MENG601, MENG610
Spring Semester (14 Credit-Hours)				
Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG ***	Major Elective	3		
MENG***	Major Elective	1		
ENGG***	GER	3		
MENG***	Major Elective	3		
MENG ***	Major Elective	1		
MENG695	Master Thesis (Part II)	3	Master Thesis (Part I)	MENG601, MENG610

List of Major Elective Courses

Solid Mechanics

Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG580	Nonlinear Fracture Mechanics	3	MENG510	
MENG590	Theory of Solid Continua	3	MENG510	
MENG600	Control Theory for Mechanical Engineers	3		
MENG620	Theory of Elasticity	3	MENG510	
MENG630	Theory of Plasticity	3	MENG510	
MENG640	Theory of Shells and Plates	3	MENG510	
MENG650	Advanced Finite Methods in Mechanics	3	MENG555	MENG650L
MENG650L	Advanced Finite Methods in Mechanics Lab	1	MENG555	MENG650

Fluid Mechanics

Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG585	Solar Energy & Thermal Systems	3	MENG520, MENG525	
MENG595	Turbo-machinery	3	MENG520, MENG525	MENG595L
MENG595L	Turbo-machinery Lab	1	MENG520, MENG525	MENG595
MENG605	Aerodynamics	3	MENG520, MENG525	

MENG615	Refrigeration and Air-Conditioning	3	MENG520, MENG525	MENG615L
MENG615L	Refrigeration and Air-Conditioning Lab	1	MENG520, MENG525	MENG615
MENG625	Gas & Steam Turbines	3	MENG520, MENG525	
MENG645	Advanced Refrigeration Cycle	3	MENG615	
MENG655	Power Plant Engineering	3	MENG520	MENG655L
MENG655L	Power Plant Engineering Lab	1	MENG520	MENG655
Automotive Engineering				
Course Code	Course Title	Crs.	Prerequisites	Corequisites
MENG591	Automotive Engineering Fundamentals	3	MENG550	MENG591L
MENG591L	Automotive Engineering Fundamentals	1	MENG550	MENG591
MENG611	Vehicle Thermal Management	3	MENG520, MENG525	
MENG621	Automotive Body structure	3	MENG510	
MENG631	Finite Element Methods for Crashworthiness and Impact Analysis	3	MENG555	MENG631L

MENG631L	Finite Element Methods for Crashworthiness and Impact Analysis Lab	1	MENG555	MENG631	
MENG641	Vehicle Dynamics	3	MENG550	MENG641L	
MENG641L	Vehicle Dynamics Lab	1	MENG550	MENG641	