

College of Engineering and Information Technology Department of Mechanical Engineering

Course Sequence

First Year

First Semester:

Course Code	Course Title	Credit Hrs	Lec. Hrs	Lab. Hrs	Tut. Hrs	Prerequisite
MTH121	Engineering Mathematics I	3	3	_	2	
PHY121	Engineering Physics I	4	3	2	2	
COM111	IT Fundamentals	3	2	2	-	
CHE101	Chemistry for Engineers	3	2	2	-	
MEC101	Introduction to Engineering	1	1	_	1	
ISL114	Islamic Culture	3	3	-	1	
		17	14	6	6	

Second Semester

Course Code	Course Title	Credit Hrs	Lec. Hrs	Lab. Hrs	Tut. Hrs	Prerequisite
MTH122	Engineering Mathematics II	3	3	-	2	MTH121
PHY122	Engineering Physics II	4	3	2	2	PHY121
MEC102	Computer Programming	3	3	_	2	COM111
MEC103	Engineering Drawing and Mechanical Workshop	3	1	(2+2)*	_	
ARB111	Comm. Skills in Arabic Lang.	3	3	-	-	
		16	13	6	6	

^{*} For the course MEC103, 1 hour of lecture, 2 hours of studio and 2 hours of workshop.

Summer Semester

Course Code	Course Title	Credit Hrs	Lec. Hrs	Lab. Hrs	Tut. Hrs	Prerequisite
STA112	Statistics	3	2	2	_	
	University Elective – I	3	3	-	-	
		6	5	2	_	

Second Year

First Semester

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MTH221	Engineering Mathematics III	3	3	-	2	MTH122
MEC201	Fundamentals of Electrical Engineering	4	3	2	1	PHY122
MEC202	Engineering Mechanics - Statics	3	3	-	1	PHY121
MEC203	Engineering Materials	3	2	2	1	CHE101
MEC204	Thermodynamics	3	3	-	1	PHY121
		16	14	4	6	

Second Semester

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MTH222	Engineering Mathematics IV	3	3	-	2	MTH221
MEC205	Engineering Mechanics - Dynamics	3	3	-	1	MEC202
MEC206	Mechanics of Solids	4	3	2	1	MEC202
MEC207	Fluid Mechanics	4	3	2	1	PHY121
MEC208	Report Writing and Presentation	3	3	-	1	MEC101
		17	15	4	6	

Third Year

First Semester:

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MTH321	Engineering Mathematics V	3	3	-	2	MTH122
MEC301	Heat Transfer	4	3	2	1	MEC204
MEC302	Computational Methods in Engineering	3	3	-	2	MTH221, MEC102
MEC303	Design of Machine Elements	3	3	-	1	MEC103, MEC206
ENV111	Environmental Science	3	3	-	-	
		16	15	2	5	

INTERNAL TRAINING (2 Weeks in Fall Break)

Second Semester:

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MEC304	Control Systems	4	3	2	2	MTH321
MEC305	Engineering Management	3	3	-	1	MEC208
MEC306	Machine Design	4	3	2	1	MEC303
MEC307	Manufacturing Technology	4	3	2	1	MEC206
INN311	Innovation and Entrepreneurship (English)	3	3	_	_	60 Cr. Hrs.
		18	15	6	5	

MEC499: ENGINEERING TRAINING I (6 Weeks in Summer Break)

Fourth (Final) Year

First Semester

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MEC401	Directed Studies in Mechanical Engineering	3	3	-	-	MEC305
MEC402	Turbo Machines	3	3	-	-	MEC207, MEC301
MEC491	Graduation Design Project I	3	1	4	-	MEC306, MEC307
	Program Elective I	3	3	-	-	
	Program Elective II	3	3	_	_	
		15	13	4	_	

Second Semester

Course Code	Course Title	Credit Hrs.	Lec. Hrs.	Lab. Hrs.	Tut. Hrs.	Prerequisite
MEC403	Refrigeration and Air Conditioning	4	3	2	_	MEC301
MEC492	Graduation Design Project II	3	1	4	_	MEC491
	Program Elective III	3	3	-	_	
	Program Free Elective	3	3	-	-	Advisor's approval
	University Elective – II	3	3	-	-	

16	13	6	_	

MEC499: ENGINEERING TRAINING II (6 Weeks in Summer)