Department Of Mechanical Engineering

Educational Program Study Plan

The study plan for the Mechanical Engineering Department follows an open credit system and consists of 155 credit units, distributed as follows:

1) 36 credit units over the first (Fall) and second (Spring) semesters in the general track, including:
   - 4 credit units of university requirements
   - 32 credit units of college requirements.
2) 119 credit units of specialization requirements, comprising:
   - 110 mandatory credit units.
   - 9 elective credit units.

First Year: General Engineering

First Semester (Fall)

No	Code	Course of study	hours		Units	No. of study hours per week
			theoretical	practical		
1	GS 101	Mathematics I	4	-	4	4
2	GS 103	Physics I	3	-	3	3
3	GE104	Computer	3	-	3	3
4	HS 106	Arabic language	2	-	2	2
5	GS 204	Statistics and probability	3	-	3	3
6	GE 103	Mechanics Engineering I	3	-	3	3
Total Units					18	

Second Semester (Spring)

No	Code	Course of study	hours		Units	No. of study hours per week
			theoretical	practical		
1	GS 102	Mathematics II	3	-	3	3
2	GS 104	Physics II	3	3	4	6
3	GS 105	Chemistry	4	-	4	6
4	HS 103	English language	2	-	2	2
5	GE 102	Engineering drawing	1	4	3	5
6	HS 110	National culture	2	-	2	2
Total Units					18	

SECOND YEAR: Mechanical Engineering (REE) Department

Third Semester (Fall)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	GS 201	Mathematics III	3				
2	032GS	Technical Work Shop	2				
3	ME 201	Material Science	3				
4	05ME 2	Engineering Mechanics II	3				
5	ME 207	Production Engineering I	3				
6	ME 209	Engineering Measurements	2				
Total Units			16				

Fourth Semester (Spring)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	GS 202	Mathematics IV	3				
2	4ME 20	Mechanical Engineering Drawing	2				
3	ME 206	Thermodynamics I	3				
4	ME 208	Strength of Materials I	3				
5	ME 210	Production Engineering II	3				
6	GS 212	Academic English	3				
Total Units			17				

THIRD YEAR: Mechanical Engineering (REE) Department

Fifth Semester (Fall)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 301	Numerical Analysis	3				
2	ME 303	Strength of Materials II	3				
3	ME 307	Fluid Mechanics I	3				
4	ME 309	Thermodynamics II	3				
5	ME 311	Theory of Machines	4				
Total Units			16				

Sixth Semester (Spring)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 302	Mechanical Vibration	3				
2	ME 304	Machine Design I	3				
3	ME 306	Engineering Economics	3				
4	ME 308	Heat Transfer I	3				
5	ME 310	Fluid Mechanics II	3				
6	123ME	Electrical Engineering	3				
Total Units			18				

FOURTH YEAR: Mechanical Engineering (REE) Department

Seventh Semester (Fall)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 401	Technical Report Writing	1				
2	ME 403	Heat Transfer II	3				
3	ME 405	Machine Design II	3				
4	ME 407	Automatic Control	3				
5	ME 409	Fluid Machinery	4				
Total Units			14				

Eighth Semester (Spring)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 402	Refrigeration & A/C I	3				
2	ME 404	Renewable Energy	3				
3	ME 406	Power Plants	3				
4	ME 408	Internal Combustion Engines	4				
5	ME 410	Corrosion control	3				
Total Units			16				

FIFTH YEAR: Mechanical Engineering (REE) Department

Ninth Semester (Fall)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 501	Heat Exchangers Design	3				
2	ME 503	Refrigeration & A/C II	3				
3	ME 505	Elective Course I	3				
4	ME 507	Elective Course II	3				
5	90ME 5	Graduate Project, Part I	1				
Total Units			13				

Tenth Semester (Spring)

No	Code	Course of study	Units	Contact Hours			Prerequisites
				L	P	T	
1	ME 502	Desalination	3				
2	ME 506	Elective Course I	3				
3	0ME 51	Graduate Project, Part II	3				
Total Units			9				

Elective Courses

No	Code	Course of study	**Course Title**	**Units**
1	ME 505	Automotive Engineering		3
2	ME 505	Environment Engineering		3
3	ME 505	Pipeline & Networks Design		3
4	ME 505	Gas Dynamics		3
5	ME 505	Internal Combustion Engine Design		3
6	ME 505	(CFD) Computational Fluid Dynamics		3
7	ME 505	Hot Water Heating System		3
8	ME 505	Modelling and Simulation of Thermal System		3
9	ME 505	Wind Energy		3
10	ME 505	Nanotechnology		3
11	ME 506	Industrial Management		3
12	ME 506	Quality Control		3
13	ME 506	Computer Aided Manufacturing (CAM)		3
14	ME 506	Computational Methods Mechanics of Materials		3
15	ME 506	Engineering of Nuclear System		3
16	ME 507	Engineering Maintenance		3
17	ME 507	Mechatronics		3
18	ME 507	Tribology		3
20	ME 507	Gas and Steam Turbines		3