3- Department Requirements

The following courses in tables (1A), (1b), (1C), and (2) of Total 133 Cr Hours, constitute the department requirements (Core and Electives)

Table (1A)
Basic Science

Code No.	Course Title	Cr	Prerequisites
BE 103	Engineering Mathematics (3)	3	BE 102
BE 204	Engineering Mathematics (4)	3	BE 103
BE 207	Numerical Analysis	3	BE 204
PE 210	Organic Chemistry I	3	BE 131
PE 213	Organic Chemistry II	3	PE 210
PE 214	Inorganic & Analytical Chemistry	3	BE 131
BE 208	Applied Probability and Statistics	3	BE 204
PE 314	Instrumental Analysis	3	PE 214
PE 315	Physical Chemistry	3	BE 131
Total		**27 Cr**	

Table (1B)
Engineering Courses

Code No.	Course Title	Cr	Prerequisites
EE 208	Fundamentals of Electrical Engineering	3	BE 122, BE 102
EE 210	Measurements and Interface	3	EE 208
PE 200	Chemical engineering Thermodynamics I	3	BE 122
PE 202	Chemical Engineering Thermodynamics II	3	PE200
PE 217	Material Science	3	BE 121
PE 218	Mechanics of Materials and Mechanical Design	3	PE 217
PE 230	Phase Equilibrium	3	PE 200
PE 231	Heat Transfer in Chemical Process	4	BE 121, BE 102
ME 251	Fluid Mechanics	3	BE 112
PE 313	Mass Transfer I	3	PE 231
PE 316	Mass Transfer II	4	PE 313
PE 389	Introduction to Environmental. Engineering	3	PE210, PE214
PE 390	Industrial Equipment and Material Handling	3	PE 316
Total		**40 Cr**	

Table (1C)
Specialized Courses

Code No.	Course Title	Cr	Prerequisites
PE 201	Introduction to Petrochemical Industries	3	PE 210
PE 311	Chemical process principles I	3	BE 131, BE 103
PE 312	Chemical process principles II	3	PE 311
PE 318	Industrial Corrosion	3	BE 131
PE 321	Computer Applications in Chemical Process Engineering	2	PE 231
PE 322	Chemical Reaction Engineering	3	PE 315, BE 103
PE 323	Petroleum Refining	3	PE 213
PE 324	Gas Treatment and Liquefaction	4	PE 213, PE 311, PE214
PE 325	Industrial Catalysis	3	PE 322
PE 335	Polymer Science and Engineering I	3	PE 213, PE 217, PE 201
PE 320	Automatic Process Control	3	BE 204
PE 360	Evaluation of Petroleum & Its Products	3	PE 210
PE 361	Fertilizers industries	3	PE 201
PE 368	Chemical Plant Design I	3	PE 312
PE 369	Chemical Plant Design II	3	PE 368
PE 385	Optimization of Chemical Process	3	PE 322
PE 400-1	Graduation Project (1)	4	Completion of 130 Cr. hrs
PE 400-2	Graduation Project (2)	4	PE 400-1
Total		**56 Cr**	

In addition to the required courses students should select 9 Cr Hours Elective courses from Table (2).

Table (2)
Elective Courses

Code	Course Title	Cr	Prerequisites
ME 201	Fundamentals of Combustion Engineering	3	ME251,PE200
PE 350	Process Control		PE 320
PE 326	Gas storage and Transportation	3	PE 324
PE 328	Water Treatment	3	ME 251
PE 329	Industrial Fibers Technology	3	PE 201
PE 330	Energy Conservation	3	BE122,PE200
PE 339	Production of Plastics	3	PE201
PE 336	Polymer science and engineering II	3	PE 335
PE 391	Manufacture of Synthetic Rubber	3	PE 201
PE 392	Pollution Control in Petrochemical Industries	3	PE 210
Total		**9 Cr**	