CURRICULUM STRUCTURE DISTRIBUTION

Level 0, Semester 1

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	Total Contact	Periodic Exam	Practical /oral	Final Exam	Total
BAS011	Mathematics 1	2	-	2	4	4	8	60	-	90	150
BAS012	Mechanics 1	2	-	2	4	4	8	40	-	60	100
BAS013	Physics 1	2	2	2	6	4	10	60	15	75	150
BAS014	Engineering chemistry	2	2	-	4	4	8	40	10	75	125
BAS015	Engineering drawing and projection	1	4	-	5	4	9	50	-	75	125
BAS016	Int. to computer systems	2	2	-	4	4	8	40	10	50	100
Total		**11**	**10**	**6**	**27**	**24**	**51**				**750**

Level 0, Semester 2

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	Total Contact	Periodic Exam	Practical/oral	Final	Total
BAS021	Mathematics 2	2	-	2	4	4	8	60	-	90	150
BAS022	Mechanics 2	2	-	2	4	4	8	40	-	60	100
BAS023	Physics 2	2	2	2	6	4	10	60	15	75	150
BAS024	Production engineering	3	2	-	5	4	9	40	10	75	125
BAS025	Introduction to Engineering and environment	2	-	-	2	2	4	25	-	50	75
BAS026	Technical English Language 1	2	2	-	4	3	7	40	10	50	100
BAS027	Human Rights	2	-	-	2	2	4	20	-	30	50
Total		**15**	**6**	**6**	**27**	**23**	**50**	**-**	**-**		**750**

Level 1, Semester 1

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	TotalContact	Periodic Exam	Practical /oral	Final	Total
BAS111	Mathematics 3	2	-	2	4	4	8	60	-	90	150
BAS112	Electrical Engineering Fundamentals	3	-	2	5	4	9	60	-	90	150
BAS113	Engineering Thermodynamics	3	-	2	5	4	9	40	10	75	125
BAS114	Technical English Language 2	2	2	-	4	3	7	40	10	50	100
BAS115	Computer programming	2	2	-	4	4	8	40	10	50	100
CHE111	Inorganic Chemistry	2	2	-	4	5	9	40	10	75	125
Total		**14**	**6**	**6**	**26**	**24**	**50**				**750**

Level 1, Semester 2

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	Total Contact	Periodic Exam	practical /oral	Final	Total
BAS121	Mathematics 4	2	-	2	4	5	9	60	-	90	150
BAS122	Technical report writing	2	2	-	4	4	8	40	10	50	100
BAS123	Introduction to Information Technology	2	-	2	4	4	8	40	10	50	100
BAS124	Strength of materials	2	-	2	4	4	8	40	-	60	100
CHE121	Organic Chemistry	2	2	-	4	5	9	60	15	75	150
CHE122	Physical Chemistry	2	2	-	4	3	7	60	15	75	150
Total		**12**	**6**	**6**	**24**	**25**	**49**				**750**

Level 2, Semester 1

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	Total Contact	PeriodicExam	practical /oral	Final	Total
BAS211	Engineering Probability and Statistics	2	-	2	4	4	8	60	-	60	100
BAS212	Fluid Mechanics	2	1	1	4	4	8	60	15	75	150
BAS213	Engineering Economy	2	-	1	3	3	6	40	-	60	100
BAS214	Heritage of Egyptian Literature	2	-	-	2	3	5	20	-	30	50
CHE211	Chemical Eng Principles 1	2	-	2	4	5	9	60	-	90	150
CHE212	Material science and metallurgy	2	-	2	4	3	7	40	-	60	100
CHE213	Principles of Eng Design	2	-	2	4	3	7	40	-	60	100
Total		**14**	**1**	**10**	**25**	**25**	**50**				**750**

Level 2, Semester 2

Code	Course name	Hours per week						Degree			
		Lect.	Lab.	Exer.	Contact	Student's load	Total Contact	Periodic Exam	practical/oral	Final	Total
BAS221	Numerical Methods in Engineering	2	-	2	4	4	8	40	-	60	100
CHE221	Chemical Eng Principles2	3	-	2	5	5	10	60	-	90	150
CHE222	Chemical Engineering Thermodynamics	2	1	2	5	4	9	40	10	75	125
CHE223	Analytical Chemistry	2	2	-	4	4	9	40	10	60	100
CHE224	Process Dynamics and Control	2	-	2	4	4	8	40	-	60	100
CHE22	Heat transfer	2	1	2	5	3	7	40	10	75	125
CHE226	Training 1*	-	-	-	-	-	-	30	-	20	50
Total		**15**	**4**	**8**	**27**	**24**	**51**				**750**

*The student should make training in summer following the 2nd semester for 4 weeks.

Level 3, Semester 1

Code	Course name	Hours per week						Degree			
		Lect.	Lab	Exer.	Contact	Student load	Total Contact	PeriodicExam	practical/oral	Final	Total
BAS311	Environmental management	2	-	1	3	3	6	40	-	60	100
CHE311	Reactor Design	2	-	2	4	4	8	50	-	75	125
CHE312	Operations Research	2	-	2	4	4	8	40	-	60	100
CHE313	Mass Transfer Operations I	2	-	2	4	4	8	50	-	75	125
CHE314	Bio chemistry	2	-	2	4	4	8	40	-	60	100
CHE315	Electrochemistry	2	1	1	4	3	7	50	-	50	100
CHE316	Elective 1	2	-	2	4	3	7	50	-	50	100
Total		**14**	**1**	**12**	**27**	**25**	**52**				**750**

Level 3, Semester 2

Code	Course name	Hours per week						Degree			
		Lect.	Lab	Exer.	Contact	Student load	Total Contact	Periodic Exam	practical/oral	Final	Total
BAS321	Project Management and Control	2	-	2	4	4	8	40	-	60	100
CHE321	Mass Transfer Operations II	3	-	2	5	4	9	60	-	90	150
CHE322	Corrosion engineering	2	-	2	4	3	7	40	-	60	100
CHE323	Mechanical unit operations	3	-	2	5	4	9	60	-	90	150
CHE324	Process Modeling and Simulation	3	2	-	5	4	9	40	10	50	100
CHE325	Elective 2	2	-	2	4	4	8	50	-	50	100
CHE326	Training 2*	-	-	-	-	-	-	30	-	20	50
Total		**15**	**2**	**10**	**27**	**23**	**50**				**750**

*The student should make training in summer following the 2nd semester for 4 weeks.

Level 4, Semester 1

Code	Course name	Hours per week						Degree			
		Lect.	Lab	Exer.	Contact	Student's load	Total Contact	Periodic Exam	practical /oral	Final	Total
CHE411	Computer Applications in Chem. Eng.	3	2	-	5	4	9	40	10	50	100
CHE412	Petrochemical Engineering	2	-	2	4	4	8	60	15	75	150
CHE413	Plant Design	3	-	2	5	4	9	60	-	90	150
CHE414	Project 1*	3	2	-	5	4	9	75	-	75	150
CHE415	Elective 3	2		2	4	4	8	50	-	50	100
CHE416	Elective 4	2		2	4	4	8	50	-	50	100
Total		**15**	**4**	**8**	**27**	**24**	**51**				**750**

Level 4, Semester 2

Code	Course name	Hours per week						Degree			
		Lect.	Lab	Exer.	Contact	Student's load	Total Contact	Periodic Exam	practical /oral	Final	Total
BAS421	Research and Analytic Skills	2	-	-	2	3	5	20	-	30	50
CHE421	Industrial Technology in Chem. Eng.	2	-	2	4	4	8	50	15	60	125
CHE422	Petroleum Refining Engineering	2	-	2	4	3	7	50	-	75	125
CHE423	Quality Assurance and Engineering Reliability	2	-	1	3	3	6	50	-	50	100
CHE424	Project 2*	2	4	-	6	4	10	50	25	75	150
CHE425	Elective 5	2	-	2	4	3	7	50	-	50	100
CHE426	Elective 6	2	-	2	4	3	7	50	-	50	100
Total		**14**	**4**	**9**	**27**	**23**	**50**				**750**

* Continuous Course; one oral examination for both CHE414 and CHE424 at the end of the second term.

Elective Courses

The students should choose one course from each of the following tables:

	Code	Course name
Elective 1	CHE316A	Liquefied Natural Gas
	CHE316B	Gas Sweetening
	CHE316C	Gas engineering
	CHE316D	Introduction to combustion phenomena
	CHE316E	Air Pollution
	CHE316F	Engineering Materials Selection

	Code	Course name
Elective 2	CHE325A	Foams Industry
	CHE325B	Ceramics Industry
	CHE325C	Polymer engineering
	CHE325D	Food Processing Technology

	Code	Course name
Elective 3	CHE415A	Electroplating
	CHE415B	Synthetic fibers
	CHE415C	Paints technology
	CHE415D	Renewable Energy Sources

	Code	Course name
Elective 4	CHE416A	Water desalination
	CHE416B	Wastewater Treatment
	CHE416C	Rubber industry

	Code	Course name
Elective 5	CHE425A	Industrial safety
	CHE425B	Special topics in chemical engineering
	CHE425C	Plasticizers
	CHE425D	Fertilizers Technology

	Code	Course name
Elective 6	CHE426A	Pulp and Paper Industry
	CHE426B	Polymer processing
	CHE426C	Refractories
	CHE426D	Printing Technology