FALL, SP12

COMSATS Institute of Information Technology

Scheme of Studies

(BS (ChE) for 2011-2012)

Total Semesters / Credit Hours
8 Semesters 138

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
Semester: 1				
CHE110	Chemical Process Principles I	3(3, 0)		
PHY132	Physics for Chemical Engineers	4(3, 1)		
MTH101	Calculus I	3(3, 0)		
HUM100	English Comprehension and Composition	3(3, 0)		
HUM110	Islamic Studies	3(3, 0)		
EEE113	Engineering Drawing	1(0, 1)		
Semester: 2				
CHM100	Chemistry I	4(3, 1)		
HUM111	Pakistan Studies	3(3, 0)		
MTH102	Calculus II	3(3, 0)		MTH101
CSC101	Introduction to Computing	3(2, 1)		
HUM102	Report Writing Skills	3(3, 0)		HUM100
CHE120	Thermodynamics I for Chemical Engineers	3(3, 0)		
Semester: 3				
MEE111	Workshop Practice	2(0, 2)		
CHM201	Chemistry II	4(3, 1)		CHM100
CHE211	Chemical Process Principles II	3(3, 0)		CHE110
MTH242	Differential Equations	3(3, 0)		MTH102
CHE230	Fluid Mechanics for Chemical Engineers	4(3, 1)		PHY132
Semester: 4				
CSC141	Introduction to Computer Programming	4(3, 1)		CSC101
CHE212	Transport Phenomena	3(3, 0)		MTH242
HUM103	Communication Skills	3(3, 0)		HUM100
CHE213	Particulate Technology	4(3, 1)		CHE230
CHE221	Chemical Process Technology I	3(3, 0)		
Semester: 5				

Studies

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CHE322	Fuels and Combustion	4(3, 1)		
CHE331	Mass Transfer Operations	3(3, 0)		
CHE332	Heat Transfer Operations	3(3, 0)		
CHE323	Thermodynamics II for Chemical Engineers	4(3, 1)		CHE120
MTH375	Numerical Computations	3(2, 1)		MTH102
Semester: 6				
CHE340	Engineering Materials	3(3, 0)		
CHE324	Chemical Reaction Engineering	4(3, 1)		CHE322
CHE333	Simultaneous Heat and Mass Transfer Operations	3(3, 0)		CHE212
CHE334	Instrumentation and Process Control	4(3, 1)		MTH242
CHE335	Mass Transfer Operations Lab	1(0, 1)		
CHE336	Heat Transfer Operations Lab	1(0, 1)		
Semester: Summer				
CHE337	Industrial Training (4-6 Weeks)	5(0, 5)		
Semester: 7				
CHE425	Chemical Process Technology II	4(3, 1)		CHE221
ECO300	Engineering Economics	2(2, 0)		
CHE438	Simultaneous Heat and Mass Transfer Operations Lab	1(0, 1)		
CHE439	Petroleum Refinery Engineering	3(3, 0)		
CHE441	Chemical Engineering Plant Design	3(3, 0)		
xxxxxx	Elective I	3(3, 0)		
Semester: 8				
MGT462	Project Planning and Management	2(2, 0)		
xxxxxx	Elective II	3(3, 0)		
CHE442	Chemical Engineering Plant Design Project	5(0, 5)		
MGT362	Production and Operation Management	3(3, 0)		
CHE443	Maintenance Engineering and Safety	2(2, 0)		

Elective Courses

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CHE415	Oil and Gas Production and Processing	3(3, 0)		
CHE416	Petrochemical Engineering	3(3, 0)		
CHE417	Corrosion Engineering	3(3, 0)		
CHE418	Gas Processing	3(3, 0)		
CHE426	Colorants and Auxiliaries	3(3, 0)		
CHE427	Fibrous Materials processing	3(3, 0)		

se Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
HE428	Advanced Coloring Engineering	3(3, 0)		
CHE429	Textile Processing	3(3, 0)		
CHE446	Chemical Process Design and Simulations	3(3, 0)		
CHE450	Polymer and Rubber Technology	3(3, 0)		
CHE451	Polymer Engineering	3(3, 0)		
CHE461	Biochemical Engineering	3(3, 0)		
CHE462	Biochemical Separations	3(3, 0)		
CHE463	Biochemical Process and Products	3(3, 0)		
CHE470	Coal Combustion Technology	3(3, 0)		
CHE471	Renewable Energy Resources	3(3, 0)		
CHE472	Industrial Energy Systems	3(3, 0)		
CHE480	Risk Management and Safety	3(3, 0)		
CHE481	Environmental Engineering	3(3, 0)		
CHE482	Waste Management	3(3, 0)		
C 483	Fundamentals of Environmental Processes	3(3, 0)		
CHE490	Nuclear Engineering	3(3, 0)		
CHE491	Novel Separation Processes	3(3, 0)		
CHE492	Mineral Processing Technology	3(3, 0)		
CHE493	Electronic and Liquid Crystalline Materials	3(3, 0)		
CHE494	Fuel Cell Technology	3(3, 0)		
CHE495	Composite Materials	3(3, 0)		

Note