



# COMSATS Institute of Information Technology (CIIT)

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January 17, 2011

## NOTIFICATION

Consequent upon the recommendations of the Board of Studies for Chemical engineering in its 10<sup>th</sup> meeting held on October 22, 2010, the Board of Faculty of Engineering in its 10<sup>th</sup> meeting held on December 14, 2010 approved the following Scheme of Studies for Bachelor of Science in Chemical Engineering BS (ChE) for the students of COMSATS Institute of Information Technology Lahore Campus admitted for Spring 2007 to Spring 2008.

### Scheme of Studies of BS (ChE) for Spring-2007 to Spring-2008

#### 1<sup>st</sup> Semester

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
CHM111	Physical Chemistry-I	3(3, 0)	
PHY132	Applied Physics for Chemical Engineers	4(3, 1)	
MTH101	Calculus-I	3(3, 0)	
HUM100	English Comprehension & Composition	3(3, 0)	
HUM110	Islamic Studies	3(3, 0)	
HUM111	Pakistan Studies	3(3, 0)	
		<b>19(18, 1)</b>	

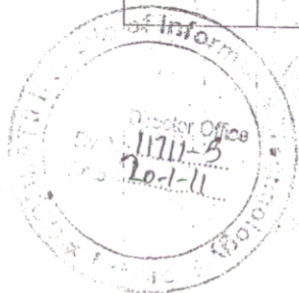
#### 2<sup>nd</sup> Semester

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
CHM112	Physical Chemistry-II	2(2, 0)	CHM111
CHM101	General Chemistry	3(3, 0)	
CHE111	Chemical Process Principles-I	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
		<b>17(16, 1)</b>	

#### 3<sup>rd</sup> Semester

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
CHM213	Physical Chemistry (Lab)	1(0, 1)	
CHM202	General Chemistry (Lab)	1(0, 1)	
CHM221	Analytical Chemistry	3(3, 0)	
CHE212	Chemical Process Principles-II	3(3, 0)	CHE111
CHE213	Particulate Technology	3(3, 0)	
CHE214	Transport Phenomena-I	3(3, 0)	
MTH242	Differential Equations	3(3, 0)	MTH102
		<b>17(15, 2)</b>	

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**4<sup>th</sup> Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
✓CSC141	Introduction To Computer Programming	4(3, 1)	CSC101
✓CHM222	Analytical Chemistry (Lab)	1(0, 1)	
✓CHE215	Particulate Technology (Lab)	1(0, 1)	
✓CHE216	Transport Phenomena-II	3(3, 0)	CHE214
✓CHE221	Fluid & Particle Mechanics	3(3, 0)	
✓CHE222	Fuels & Combustion	3(3, 0)	
		<b>15(12, 3)</b>	

**5<sup>th</sup> Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
MCE301	General Engineering	2(2, 0)	
MCE302	Engineering Workshop (Lab)	1(0, 1)	
CHE323	Chemical Engineering Thermodynamics	3(3, 0)	CHM112
CHE324	Fuels & Combustion (Lab)	1(0, 1)	
CHE325	Chemical Engineering Transfer Operations	3(3, 0)	
CHE326	Fluid & Particle Mechanics (Lab)	1(0, 1)	
CHE331	Instrumentation & Process Control	3(3, 0)	
✓CHE332	Chemical Reaction Engineering	3(3, 0)	
		<b>17(14, 3)</b>	

**6<sup>th</sup> Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
HUM320	Introduction To Sociology	3(3, 0)	
MTH375	Numerical Computations	3(3, 0)	MTH102
CHE327	Chemical Engineering Heat Transfer Operations (Lab)	1(0, 1)	
CHE328	Chemical Engineering Mass Transfer Operations (Lab)	1(0, 1)	
CHE329	Simultaneous Heat & Mass Transfer Operations	3(3, 0)	CHE325
✓CHE333	Engineering Materials	3(3, 0)	
✓CHE334	Chemical Process Technology-I	3(3, 0)	
		<b>17(15, 2)</b>	

**Summer Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
CHE335	Industrial Training (4-6 Weeks)	5(0, 5)	
		<b>5(0, 5)</b>	

**7<sup>th</sup> Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
MCE403	Engineering Drawing/Graphics (Lab)	1(0, 1)	
CHE420	Simultaneous Heat & Mass Transfer Operations (Lab)	1(0, 1)	
CHE436	Instrumentation & Process Control (Lab)	1(0, 1)	
GHE437	Chemical Process Technology-II	3(3, 0)	
	Elective-I	3(3, 0)	
✓CHE442	Chemical Engineering Plant Design	3(3, 0)	
✓ECO302	Process Economics	3(3, 0)	
		<b>15(12, 3)</b>	



**8<sup>th</sup> Semester**

Course Code	Course Title	Cr. Hrs.	Pre-Requisite(s)
✓ MGT362	Production & Operations Management	3(3, 0)	
✓	Elective-II	3(3, 0)	
✓ CHE444	Environmental & Process Safety Engineering	2(2, 0)	
✓ MGT462	Project Planning & Management	2(2, 0)	
✓ CHE445	Chemical Engineering Plant Design Project	5(0, 5)	
		<b>15(10, 5)</b>	

**Grand Total :137 Credit Hours**  
**Semesters Total: 8 Semesters**

**Elective Courses**

Course Code	Course Title
CHE415	Oil and Gas Production and Processing
CHE416	Petrochemical Engineering
CHE417	Corrosion Engineering
CHE418	Gas Processing
CHE426	Colorants and Auxiliaries
CHE427	Fibrous Materials processing
CHE428	Advanced Coloring Engineering
CHE429	Textile Processing
CHE446	Chemical Process Design & Simulations
CHE450	Polymer & Rubber Technology
CHE451	Polymer Engineering
CHE461	Biochemical Engineering
CHE462	Biochemical Separations
CHE463	Biochemical Process and Products
CHE470	Coal Combustion Technology
CHE471	Renewable Energy Resources
CHE472	Industrial Energy Systems
CHE480	Risk Management and Safety
CHE481	Environmental Engineering
CHE482	Waste Management
CHE483	Fundamentals of Environmental Processes
CHE490	Nuclear Engineering
CHE491	Novel Separation Processes
CHE492	Mineral Processing Technology
CHE493	Electronic & Liquid Crystalline Materials
CHE494	Fuel Cell Technology
CHE495	Composite Materials

  
**(Muhammad Murtaza)**  
 Assistant Registrar

**Distribution:**

1. Director, CIIT Lahore Campus
2. Dean, Faculty of Engineering
3. Controller of Examinations, CIIT
4. Chairman, Department of Chemical Engineering
5. All HoD's/Incharge of the Department of Chemical Engineering
6. Additional Registrar (Academics), Islamabad Campus

**CC:**

1. Registrar CIIT
2. Additional Registrar (Academics) P.S
3. SO to Rector