COMSATS Institute of Information Technology
Registrar Office, Principal Seat, Islamabad

***

No: CIIT-Reg/Notif- 510/11/1276 **August 25, 2011**

Notification

Consequent upon the recommendations of the Board of Faculty of Engineering in its 11th meeting held on June 14, 2011 and subsequent approval of the competent authority in anticipation to the approval of the Board of Advanced Studies and Research, the Scheme of Studies of MS & PhD in Chemical Engineering is hereby notified with effect from Fall 2011 for CIIT System. ***(Details are attached at "Annex-A")***

This supersedes Notification No. CIIT-Reg/Notif- 142/11/801 dated April 29, 2011.

Nadeem Uddin Qureshi
Additional Registrar

(Encl: Pages 5 including this page)

Distribution:

1. Dean, Faculty of Engineering CIIT.
2. All Campus Directors, CIIT.
3. Chairman, Department of Chemical Engineering, CIIT Lahore Campus
4. All Incharges, Academic Sections, CIIT Campuses.
5. HoD, Department of Chemical Engineering, CIIT Lahore Campus
6. Controller of Examinations, CIIT.
7. Additional Registrar (Academics) CIIT, Islamabad Campus.
8. All Incharges, Examination Departments, CIIT Campuses.

CC:

1. Registrar CIIT.
2. PS to Rector.

No: CIIT-Reg/Notif-S10 /11/1276 August 25, 2011

MS Program Requirements and Structure.

The MS program requirement is 30 credit hours. The following options are available;

Thesis Option:

Minimum 24 credit hours of course work and 06 credit hours of thesis must be completed.

Non-Thesis Option:

For *Non-Thesis Option* the program requirement can be met by completing 30 credit hours of course work.

Prerequisites courses:

Prior to the registration for the first semester, the students will consult the program advisor and plan their course selection for the MS program. Depending upon the student's background, the departmental graduate committee in consultation with the program advisor may advise a number of prerequisite courses from the CIIT undergraduate program and as per requirements of the selected courses for MS program. However, the credits earned in prerequisite(s) courses shall not be counted towards the minimum credit hours required to complete the degree.

Distribution of Courses and Credit Hours for MS Program

	Required Courses	Sub Total Credits
CORE COURSES	4	12
*ELECTIVE COURSES / COURSES IN SPECIALIZED FIELD	4	12
**Thesis		6
Total Credits		30

*At least two courses must be chosen from the specialized field. Two other courses may be chosen from any specialized field or from the list of electives.

**For non-thesis option courses equivalent to 6 credit hours must be completed instead of thesis.

CHE699 Thesis (6 Credit Hours):

The student will register for the research project based thesis involving design / process development / analytical work of 6 credit hours with a supervisor within the department or someone outside the department approved by the Departmental Graduate Committee.

Note: The detailed rules and regulations specified in the latest CIIT Graduate Handbook regarding examinations and thesis defense will be followed and considered final.

List of Graduate Courses (MS & PhD) Chemical Engineering

Core Courses

Course Code	Course Title	Credits Hours
CHE610	Advanced Transport Phenomena	3(3,0)
CHE611	Advanced Chemical Kinetics & Reaction Engineering	3(3,0)
CHE612	Advanced Chemical Engineering Thermodynamics	3(3,0)
CHE613	Advanced Numerical and Statistical Analysis	3(3,0)

Courses in specialized field

Oil & Gas Production and Processing

Course Code	Course Title	Credits Hours
CHE620	Petroleum Fluids	3(3,0)
CHE720	Oil and Gas economics	3(3,0)
CHE721	Surface Petroleum Operations	3(3,0)
CHE820	Petroleum Modules	

Environmental Technology

Course Code	Course Title	Credits Hours
CHE630	Life Cycle Analysis	3(3,0)
CHE730	Chemicals Emission & Control	3(3,0)
CHE731	Fate and Transport of Chemical in Environment	3(3,0)
CHE830	Hazardous and Toxic Chemical Waste Treatment	3(3,0)

Polymer & Rubber Technology

Course Code	Course Title	Credits Hours
CHE640	Industrial Polymer Chemistry	3(3,0)
CHE641	Rubber & Plastics Materials	3(3,0)
CHE740	Polymer Rheology	3(3,0)
CHE840	Polymer Processing	3(3,0)

Bio-Chemical Engineering

Course Code	Course Title	Credits Hours
CHE650	Biochemical Engineering	3(3,0)
CHE750	Bio-reaction engineering	3(3,0)
CHE850	Separation Processes for Bio-Chemical Products	3(3,0)
CHE851	Bio-Molecular Kinetics and Cellular Dynamics	3(3,0)

Textile Processing

Course Code	Course Title	Credits Hours
CHE660	Technology of Textile Wet Processing	3(3,0)
CHE760	Physico-chemical Processes in Textile	3(3,0)
CHE761	Textile Quality Assurance	3(3,0)
CHE860	Characterization of Fibrous Materials	3(3,0)

Elective Courses

Course Code	Course Title	Credits Hours
CHE614	Advanced Process Economics	3(3,0)
CHE621	Combustion engineering	3(3,0)
CHE631	Industrial Environmental Biotechnology	3(3,0)
CHE642	Composite Materials	3(3,0)
CHE643	Polymer Physics	3(3,0)
CHE644	Colloid and Surfactant Science	3(3,0)
CHE645	Polymer Testing	3(3,0)
CHE646	Plastic Technology	3(3,0)
CHE651	Bio-Chemical & Food Technology	3(3,0)
CHE652	Biotechnology and Environmental Processes	3(3,0)
CHE661	Technical Textiles	3(3,0)
CHE662	Pre-Chemical Treatment Processes of Textile	3(3,0)
CHE663	Processes for Cotton Dyeing	3(3,0)
CHE664	Textile Printing	3(3,0)
CHE710	Advanced Treatment of Simultaneous Heat & Mass Transfer	3(3,0)
CHE711	Computational Fluid Dynamics	3(3,0)
CHE712	Instrumental Analytical Techniques	3(3,0)
CHE722	Petroleum Transmission	3(3,0)
CHE723	Natural Gas Transmission	3(3,0)
CHE732	Industrial Environmental Microbiology	3(3,0)
CHE 733	Industrial Environmental Chemistry	3(3,0)
CHE741	Principles of polymer conversion operations	3(3,0)
CHE742	Polymer Membranes	3(3,0)
CHE743	Sol-Gel Processing	3(3,0)
CHE751	Bio-process design	3(3,0)
CHE752	Production of biofuels	3(3,0)

Included