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

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No: CIIT-Reg/Notif-671/12/995

July 3, 2012

#### NOTIFICATION

# Scheme of Studies of Master of Science (MS) in Applied Geology

It is hereby notified that the Academic Council in its 13<sup>th</sup> meeting held on June 04, 2012 approved the following scheme of studies of Master of Science (MS) in Applied Geology program with effect from Fall 2012 at CIIT system:

	Min N	o. of Courses	Min No. of Credit Hours
1. MS ( i. ii.	Course Work Core Courses (List attached) Elective Courses (List attached)	04 04	12 12
	Total Credit Hours of course w	ork	24
2. MS	Thesis		06
3. Tota	Credit Hours of the Program		30

### Note:

- i. The student has to select at least 02 elective courses from the list of geology electives and may select remaining electives from the list of geophysics electives under the recommendation of supervisor and supervisory committee.
- ii. All Rules and Regulations approved by BASAR from time to time shall be applicable

This issues with the approval of the Competent Authority.

Nadeem Uddin Qureshi Additional Registrar

Encl: (pages 03 in total including this page)

#### Distribution:

- 1. Dean, Faculty of Science, CIIT
- 2. All Directors, CIIT System
- 3. Chairman, Department of Earth Sciences, CIIT
- 4. All Incharges, Academic Sections, CIIT Campuses
- 5. All HoD's/Incharges, Department of Earth Sciences, CIIT Campuses
- 6. Controller of Examinations, CIIT
- 7. All Incharges, Examination Departments, CIIT Campuses

### CC:

- 1. PS to Rector
- 2. PA to Registrar

## **List of Core Courses**

Course Code	Course Title	Credit Hours
ERS501	Advanced Economic Geology	3(3, 0)
ERS502	Geology and Tectonics of Pakistan	3(3, 0)
ERS503	Computer Applications in Geosciences	3(3, 0)
ERS504	Research Methodology and Technical Writing	3(3, 0)

# Thesis

Course Code	Course Title	Credit Hours
ERS800	Thesis	6

List of Geology Electives Courses

Course Code	Course Title	Credit Hours
ERS601	Photogeology and Remote Sensing	3(3, 0)
ERS602	Hydrogeology	3(3, 0)
ERS603	Mining Geology	3(3, 0)
ERS611	Principles of Stratigraphy	3(3, 0)
ERS612	Depositional Systems	3(3, 0)
ERS613	Sedimentary Petrology	3(3, 0)
ERS614	Advanced Clastic Sedimentology	3(3, 0)
ERS615	Applied Carbonate Sedimentology	3(3, 0)
ERS616	Paleontology and Biotratigraphy	3(3, 0)
ERS617	Advanced Sequence Stratigraphy	3(3, 0)
ERS618	Stratigraphy and Petroleum Prospects of Pakistan	3(3, 0)
ERS619	Coal Geology	3(3, 0)
ERS621	Mineralogy	3(3, 0)
ERS622	Igneous Petrology	3(3, 0)
ERS623	Metamorphic Petrology	3(3, 0)
ERS624	Advanced Geochemistry	3(3, 0)
ESR625	Mineral Prospecting and Exploration	3(3, 0)
ERS626	Ore Geology, Mining, and Processing	3(3, 0)
ERS627	Metallogeny and Plate Tectonics	3(3, 0)
ERS628	Mineral Deposits of Pakistan	3(3, 0)
ERS631	Advanced Petroleum Geology	3(3, 0)
ERS632	Organic Geochemistry	3(3, 0)
ERS633	Sedimentary Basin Analysis	3(3, 0)
ERS634	Well Logs Analysis and Interpretation	3(3, 0)
ERS635	Borehole Geology: Techniques and Applications	3(3, 0)
ERS636	Petroleum Engineering	3(3, 0)
ERS637	Reservoir Geology	3(3, 0)
ERS638	Petroleum Geology of Pakistan	3(3, 0)
ERS639	Petroleum Geosciences	3(3,0)
ERS641	Structural Geology	3(3, 0)
ERS642	Structural Techniques	3(3, 0)
ERS643	Metamorphic Structures	3(3, 0)

ERS644	Compressional Structural Styles and Hydrocarbon Exploration	3(3, 0)
ERS645	Tectonic Control on Petroleum Prospects of Pakistan	3(3, 0)
ERS646	Plate Tectonics	3(3, 0)
ERS647	Regional Tectonics	3(3, 0)
ERS648	Active Tectonics	3(3, 0)
ERS649	Seismotectonics	3(3, 0)
ERS651	Advanced Environmental Geology	3(3, 0)
ERS652	Soil and Water Resources	3(3, 0)
ERS653	Hydrochemistry and Groundwater Pollution	3(3, 0)
ERS654	Environmental Hazards	3(3, 0)
ERS655	Hydrological System and Environment	3(3, 0)
ERS656	Soil and Water Conservation Engineering	3(3, 0)
ERS657	Geology and Environment	3(3,0)
ERS661	Advanced Engineering Geology	3(3, 0)
ERS662	Geohazards and Disaster Management	3(3, 0)
ERS663	Soil and Rock Mechanics	3(3, 0)
ERS664	Advanced Groundwater Engineering	3(3, 0)

**List of Geophysics Elective Courses** 

Course Code	Course Title	Credit Hours
ERS671	Advanced Geophysical Data Processing	3(3, 0)
ERS672	Advanced Gravity and Magnetic Methods	3(3, 0)
ERS673	Electrical Method and Application	3(3, 0)
ERS674	Advanced Exploration Geophysics	3(3, 0)
ERS675	Advanced Earthquake Seismology	3(3, 0)
ERS676	Seismic Stratigraphy	3(3, 0)
ERS677	Borehole Geophysics	3(3, 0)
ERS678	Advanced Seismic Prospecting	3(3, 0)
ERS681	Hydrogeophysics	3(3, 0)
ERS682	Groundwater Hydrology	3(3, 0)
ERS683	Modeling of Groundwater Flow System	3(3, 0)

