

**Department of Geology, University of Delhi**

Earthquake is a major natural hazard that strikes suddenly and often causes huge loss of property and life. Recent advances in understanding the physical (and geological) aspects of earthquakes have enabled us to make a more or less reliable seismic risk/hazard assessment of an area, and create seismic preparedness in the society. This course will introduce the students to the latest understanding of the geological background of earthquake generation and propagation.

**iv) Rock Mechanics and Rock Engineering**

Rocks are an integral part of any civil structure both as foundation and construction material. The study of rock mechanics and rock engineering helps in proper utilization of rocks as foundation as well as construction material. Its proper application assists the civil engineer in building safe, purposeful and long lasting structures.

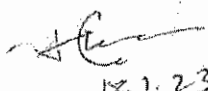
**III. M.Sc (Geology) programme details**

The M. Sc programme is a two-year course divided into four-semester. A student is required to complete 96 credits for the completion of course and the award of degree.

Year	Semester	Semester
First Year	Semester- I	Semester-II
Second Year	Semester-III	Semester-IV

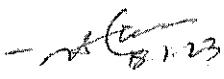
**Course Credit System**

Semester I				
Number of core courses	Credits in each core course			
	Theory	Practical	Tutorial	Total
Core course 1 Earth Surface Processes	4	1	0	5
Core course 2 Structural Geology & Tectonics	4	1	0	5
Core course 3 Igneous Petrology	4	1	0	5
Core course 4 Mineralogy	4	1	0	5
Core course 5 Field work	3	1	0	4
Total credits in core course				24
Number of Elective courses	Nil			
Total credits in elective course	0			
Number of open elective courses	Nil			
Total credits in elective course	0			
Total credits in Semester I	24			

  
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 प्राध्यापक / Head  
 विभाग / Department  
 Department of Geology  
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 University of Delhi  
 दिल्ली-110007 / Delhi-110

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Semester II				
Number of core courses	Five (4 Theory + Practical)			
	Theory	Practical	Tutorial	Total
Core course 6 Metamorphic Petrology	4	1	0	5
Core course 7 Indian Stratigraphy	4	1	0	4
Core course 8 Micropaleontology & Paleocyanography	4	1	0	5
Core course 9 Sedimentary Geology	4	1	0	5
Total credits in core courses				20
Number of elective courses	Nil			
Total credits in elective courses				0
Total credits in semester II				20
Semester III				
Number of core courses	Theory	Practical	Tutorial	Total
Core course 10 Economic Geology	4	1	0	5
Core course 11 Hydrogeology	4	1	0	5
Core course 12 Petroleum & Coal Geology	4	0	0	4
Core course 13 Field work	3	1	0	4
Total credits in core courses				18
Number of elective courses	1			
Credits in each elective course	Theory	Practical	Tutorial	Total
Elective course 1 Active Tectonics & Geomorphology/Sequence Stratigraphy & Basin Analysis/ Computational Geology/ Vertebrate Palaeontology/ Geochemistry	4	0	0	4
Total credits in elective course				4
Number of open electives courses	Minimum 1 (one)			
Credits in each open elective course	Theory			Total
Open Elective: Physics & Chemistry of Earth/ Natural Hazards and Disaster Mitigation/ Climate Change / Environmental Geology	4	0	0	4
Total credits in open elective course				4
Total credits in Semester III				26

  
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 विभागाध्यक्ष / Head  
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