

Course structure

Syllabus of M.Sc.Geology

- Course structure & Credits Distribution.
(Compulsory Credits= 70, Elective Credits= 30)

Semester I (Compulsory Credits)

G1-1) Mineralogy and X-ray crystallography	4 credits
G1-2) Structural geology and geotectonics	4 credits
Elective Credits	
G1-3) Principles of Stratigraphy and sedimentary petrology	4 credits
G1-4) Geology of India and Palaeontology	4 credits
Or	
G1-5) Geology of India, Principles of Stratigraphy and Palaeontology	4 credits
G1-6) Soft Skills	2 Credits
G1-7) Sedimentary Petrology	2 Credits
Compulsory Credits (Pr)	
G1-8) Practical based on G1-1	2 credits
G1-9) Practical based on G1-2	2 credits
Elective credits(Pr)	
G1-10) Practical based on G1-3	2 credits
G1-11) Practical based on G1-4	2 credits
Or	
G1-12) Practical based on G1-5	2 credits
G1-13) Practical based on G1-6	1 credit
G1-14) Practical based on G1-7	1 credit
Compulsory credit	
G1-15) Seminar/field work Component	1 credit

Semester II (All courses compulsory)

G2-1) Igneous petrology and geochemistry	4 credits
G2-2) Thermodynamics and Metamorphic petrology	4 credits
G2-3) Remote sensing, and morphotectonics	4 credits
G2-4) Computer applications in Earth Sciences	4credits
G2-5) Practical based on G2-1	2 credits
G2-6) Practical based on G2-2	2 credits
G2-7) Practical based on G2-3	2 credits
G2-8) Practical based on G2-4	2 credits
Compulsory credit	
G2-9) Seminar/field work Component	1 credit

Semester-III

Compulsory Courses (Th)

G3-1) Environmental geology	4 credits
G3-2) Hydrogeology	4 credits

G3-3) Principles of Geophysics **4 credits**

Elective Courses (Th) (for 4 credits)

(The elected theory paper must be accompanied by related practical course)

G3-4) Economic Geology & Geology of Indian Mineral deposits **4 credits**

G3-5) Geographical Information System 2 credits

G3-6) Mining Geology & Elements of Mining 2 credits

Compulsory Courses (Pr)

G3-7) Practical based on G3-1 **2 credits**

G3-8) Practical based on G3-2 **2 credits**

G3-9) Practical based on G3-3 **2 credits**

Elective Courses (Pr)(for 2 credits)

G3 10) Practical based on G3-4 **2 credits**

G3-11) Practical based on G3-5 1 credit

G3 12) Practical based on G3-6 1 credit

Compulsory credit

G3-13) Seminar/field work Component **1 credit**

Semester-IV

Compulsory Courses (Th)

G4-1) Disaster Management **4 credits**

G4-2) Dissertation **4 credits**

Elective Courses (Th)(for 8 credits)

(The elected theory paper must be accompanied by related practical course)

G4-3) Petroleum Geology and Geoxploration 4 credits

G4-4) Geotechnical engineering 2 credits

G4-5) Natural resources management 2 credits

G4-6) **Watershed Management** 2 credits

G4-7) Seismotectonics **2 credits**

G4-8) Advanced Geochemistry **2 credits**

Compulsory Courses (Pr)

G4-9) Practical based on G4-1 **2 credits**

G4-10) Practical and Viva-voce based on G4-2 **2 credits**

Elective Courses (Pr)(for 4 credits)

G4-11) Practical based on G4-3 **2 credits**

G4-12) Practical based on G4-4 1 credit

G4-13) Practical based on G4-5 1 credit

G4-14) Practical based on G4-6 1 credit

G4-15) Practical based on G4-7 **1 credit**

G4-16) Practical based on G4-8 **1 credit**

Compulsory credit

G4-17) Seminar/field work Component **1 credit**

Total credits

100