

## Geology Department

### Course Outcome and Programme Outcome (CO and PO)

The syllabus has been designed in such a way that it covers all the aspects of Geology. Hence it benefits every student to carry out further studies at Post Graduate level as well as beneficial for all kinds of jobs related to the subject.

### B.Sc I ( CBCS Pattern )

#### Semester I

- DSE 21A : Physical Geology - Introduction to Geology and its Scope; Basic facts about Earth
- DSE 22A : Structural Geology - Study of the Topography or the Surface of Earth with the help of maps and observing different geological features and structures

#### Semester II

- DSE 21B : Crystallography - Detail study of mineral crystals and crystal systems
- DSE 22B : Mineralogy - Detail study of minerals and mineral Family
- DSE – Laboratory Course related to the above papers through out the Year

### B.Sc II

#### Semester III

- DSC 21C: Igneous Petrology - Detail study of igneous rocks- Formation and Classification
- DSC 22C: Sedimentary and Metamorphic Petrology - Detail study of Sedimentary and Metamorphic rocks- Formation and Classification

Semester IV

DSC 21D: Stratigraphy - Detail study of Stratigraphy and Indian Rock Successions

DSC 22D: Palaeontology - Detail study of Palaeontology and evolution of Animals and Plants

Laboratory Work related to the above papers through out the Year

B.Sc III

Semester V

DSE 41E: Economic Geology Detail study of Formation processes of Economic Minerals

DSE 42E: Hydrogeology Detail study of the Groundwater and its exploration

DSE 43E: Applied Geology – Engineering Geology Detail study of application of Geology in Civil Engineering

DSE 44E: Applied Geology – Prospecting and Mining Geology Detail study of Mineral Exploration and Mining

Laboratory Work related to the above papers through out the Year

Semester VI

DSE 41F: Photogeology and Remote Sensing - Detail study of use of Remote Sensing, GIS, Indian Remote Sensing Programme

DSE 42F: Geomorphology and Geotectonics - Detail study of different geological surface and subsurface processes going on Earth

DSE 43F: Environmental Geology - Detail study of ecosystems, Climate changes, Geological Hazards, Watershed management, land reclamation etc.

DSE 44F: Geochemistry - Detail study of elements, Periodic Table, Geochemical cycles, Thermodynamics

Laboratory Work related to the above papers through out the Year

On Completion of the Programme, the student will have a thorough knowledge of

1. The Earth and its formation
2. The Mineral Resources
3. Water Resources
4. Energy and Fuel Resources
5. Environment
6. Engineering Geology
7. Natural and Manmade Hazards and mitigation measures
8. Remote Sensing

Job Opportunities :

1. Mineral Exploration
2. Fuel Exploration
3. Groundwater Exploration
4. Environmental Studies
5. Disaster Management
6. Infrastructure Development
7. Mapping

Self Employment:

1. Groundwater Exploration and Consultancy
2. Mapping using various techniques
3. Consultancy regarding Environmental Problems
4. Water and Soil Sampling Lab