

Course contents

Geology involves a mix of practical and written work, in addition to a typical timetabled lecture programme of 10 to 12 hours a week. Fieldwork and Geological Mapping within India is a crucial part M.Sc. programme. End of semester exams for PG and final year dissertations for M.Sc. programme are common.

M.Sc. Geology

A two year M.Sc. Geology course is offered under CBCS system that enriches the students with practical field knowledge pertaining to geological mapping, exploration and exploitation of mineral resources, mining and environmental problems.

Year I of the course enables students to understand in depth concepts of evolution of landforms and the processes responsible, both on land and ocean bottom; concepts and effects of plate movements and origin of ocean basins; various forms of structures, their types, geological significance and recognition in the field; different stratigraphic units and their age problems in India; evolutionary history of both vertebrate and invertebrate organisms; microorganisms and their applications in geological research; geological hazards and environmental geology. Study of internal and external structures and optical properties of minerals; igneous process and mode of formation of rocks, their types and classification; metamorphic and metasomatic processes, metamorphic facies; modes of formation of secondary rocks, their environment of deposition, techniques of their study; geology, geophysics and geochemistry of fossil fuels, their exploration and exploitation techniques are also form the core components of first year programme.

Year 2 offers a student an opportunity to gain abundant knowledge on the mode of formation of economic mineral deposits and their distribution in India; role of geology in surface and subsurface mining, construction of major engineering structures and techniques of mineral processing; application of remote sensing and Geographical Information System to geological studies; geological, geophysical and geochemical exploration for mineral and water resources and their management. There are five practical courses that cover almost all the components of the programme giving equal weightage enabling the students to gain sufficient working knowledge that a professional geologist is expected to possess. Students will have

to submit a dissertation, taking the guidance of teachers, on a small geological problem in their area of interest by approaching it through proven methods of science. Field work to various places of geological significance within the country and visits to important organizations/institutes/central laboratories which are involved in R & D for not less than 15 days are the significant components of the programme which attract the students towards geology with full spirit and make them love the subject.