

Learning Outcomes for Geology Honours Course

The undergraduate education is the primary stepping stone in the journey towards a professional position of a Geologist. So, the primary objectives of our undergraduate program are to provide students with academic competencies, ethical values, and professional skills that facilitate the journey for the fulfilment of their dream to be a professional Geologist or an academician in the field of Earth Sciences.

Our undergraduate programme embraces the mission to develop a fertile learning environment exemplified by free exchange of ideas, high academic expectations, and individual responsibility for academic achievement. Beyond the conventional classroom teaching of theoretical aspects and laboratory studies, the students are exposed to real time application of their knowledge in the field. This enables a culture of bridging theory with practice, extends the learning environment, and promotes intellectual growth.

Students are encouraged to explore different aspects of Earth Sciences beyond the formal framework of academic curriculum. The assignments provide them with an opportunity for expressing their ideas. They are specially trained for generating creative contents, which not only introduces them to the art of critical reading, but also exposes to the basic approach to research.

As a general outcome of this undergraduate teaching program in Geology Honours, students acquire a solid base of knowledge in Earth Science as a whole. Special mention may be made of:

- Knowledge about the universe with special emphasis on the solar system, extra-terrestrial influences on the Earth, orbital forcing;
- Evolution of the Earth system, Earth's dynamics;
- Different aspects of Earth's interior, crust, hydrosphere, atmosphere, climate;
- Earth's material, surface processes,
- Competence in fundamental geological skills including: mineral, rock and soil identification; interpretation of topographic maps, geologic maps, and various forms of imagery; construction of geologic maps and cross sections; three-dimensional conceptualization; and collection of organized field and laboratory data.
- Competence in quantitative data analysis including: the construction and reading of graphs; construction and use of spreadsheets; and application of mathematical skills for analysis of geological systems;

- Exposure to the natural resource management, application of geology in engineering constructions;
- Basic ideas about natural disasters - prediction and mitigation;
- Understanding of the societal relevance of Earth Science;
- Communication skills in expressing ideas, research results, and interpretations using written, oral, and graphical design skills both on a formal and extemporaneous basis.