

Course Type	Course Code	Name of Course	L	T	P	Credit
IC	GLI101	Earth Sciences (Modular)	2	0	0	6

#### Course Objective

The primary objective of the course is to introduce fundamental aspects of Earth Science to the students of engineering and technology.

#### Learning Outcomes

Upon completion of the course, students will be able to:

1. Understand the importance of Earth as a system
2. Learn about the formation and evolution of Earth
1. Learn about the dynamics of the planet Earth and the causes for volcanism, earthquake and tsunami

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1.	Solar System, Age of the Earth, Origin of Solar system. Meteors and Meteorites; Interior of the Earth, Composition of the Earth, Seismic waves, Plate Tectonics, Landslides, Volcanoes, Earthquakes, Tsunami and its causes, Warning system and mitigation.	7	This unit will help the student in understanding the Earth System which includes the Solar System and the cosmos. It will introduce the student to fundamental concepts of Earth Science.
2.	Water table, Aquifer, Groundwater fluctuations and groundwater composition, Hydrologic cycle; Glaciation and Glacier Types; Mineral, Rocks and Rock Types, Rock cycle, Rock Structures; Origin of life.	6	This unit will help the student in learning about rocks, minerals, water resources, glaciers and origin of life.
<b>Total Classes</b>		<b>13</b>	

#### Text Books:

1. Hefferan, K. and O'Brien, J., 2010. Earth Materials, Wiley-Blackwell, Sussex; 670 p.

#### Reference Books:

1. Jain, S., 2014. Fundamentals of Physical Geology, Springer, New Delhi; 494 p.
2. Earle, S., 2015. Physical Geology, Creative Commons Attribution 4.0; 621 p.
3. Kenneth, W. and Christiansen, E.H., 2004. Earth's Dynamic Systems, Prentice Hall; 759 p.
4. Huddart, T. and Stott, T., 2010. Earth Environments – Past, Present and Future, Wiley-Blackwell, Sussex; 896 p.

#### Evaluation Scheme:

The evaluation of the performance of students will have the following percentage of weightage:

1. 70% weightage in Mid-Semester (Sections A & B)/End-Semester (Sections C & D) Examination for Earth Science Modular.
2. 20% weightage will be given to Quiz/Class Test.
3. 10% weightage will be given to Attendance.