

6. Krebs, J. Ecology, II Ed., Harper International.
7. Kumar *et al.* 1995. General Ecology, Vikas Publishing House Pvt. Ltd., New Delhi.
8. Odum E., Gary W. Barrett G. W. 2004, Fundamentals of Ecology, V Edition, Cengage Learning.
9. Payne, A.I. 1986. The Ecology of Tropical lakes and Rivers, John Wiley.
10. Sharma, P.D. 2012. Ecology and Environment, Rastogi Publications, Meerut, India.

ESH412 ENVIRONMENTAL GEOLOGY

52 hrs.

Course Outcomes:

CO1 Discuss about the importance of mineral resources and the probable impact on environment by their exploitation.

CO2 Study the basic aspects of environmental geology.

CO3 Learn the structure of earth and its processes.

CO4 Gain the knowledge of soil conservation.

CO5 Develop knowledge on geological aspects of environment which help in employability.

UNIT I (13 hours)

Environmental Geology: Objectives, scope and significance. Origin of the Earth, earth systems and its interaction with lithosphere, atmosphere, hydrosphere and biosphere. Motions of the earth, seasons. Basics of Geomorphology and edaphology,

UNIT II (13 hours)

Interior of the Earth: Earth's materials – minerals and their definition. Distribution and abundance of elements in the Earth's crust, formation and classification of Rocks. Soil-characteristics, formation of soil, soil erosion and conservation.

UNIT III (13 hours)

Earth's Processes: Endogenic and Exogenic processes: Earthquakes, Tsunami and Volcanism. Geological agents: River, Wind, Glaciers and Ocean action. Floods, Landslides, Cyclone and Avalanche, Concepts of major, trace and REE. Classification and mobility of trace elements, geochemical cycles, human use of trace elements and health.

UNIT IV (13 hours)

Mineral resources and environment: Resources and reserves, depletion trends of natural resources. Environmental impact of exploitation. Land use Planning- Environmental aspects of terrain evolution, methods of site selection and evaluation of land in environmental planning. Geological features of India and Karnataka.