

SEMESTER 1/2/3
Multidisciplinary MDC
GEO – MDC: Introduction to Geology
Credits - 3: (Theory)
FM: 75

Unit 1 Introduction to geology:

Scope, sub-disciplines and relationship with other branches of sciences.

Unit 2 Earth in the solar system,

Origin. Earth's size, shape, mass, density, rotational and evolutionary parameters. Solar System- Introduction to various planets - Terrestrial Planets, Jovian Planets.

Unit 3 Solid Earth, Hydrosphere, Atmosphere and Biosphere.

Volcanoes and volcanism, distribution of volcanoes.

Concept of isostasy.

Formation of core, mantle, crust, atmosphere, hydrosphere and biosphere.

Unit: 4. Rocks, Mineral and fossils.

Definition. General character. Usefulness.

Unit 5 Plate Tectonics

Fundamental Earth process: plate tectonics. Plates and plate boundaries. Origin of oceans, continents, mountains and rift valleys.

Unit 6 Earth's Surface Processes

Weathering and Erosion. Landforms in deserts, glaciated region and river valleys.

Suggested Reference Books:

Holmes' Principles of Physical Geology. (1992). Chapman and Hall.

Emiliani, C, (1992). Planet Earth, Cosmology, Geology and the Evolution of Life and Environment. Cambridge University Press.

Gross, M.G. (1977). Oceanography: A view of the Earth. Prentice Hall.

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