



CLUSTER UNIVERSITY SRINAGAR

SYLLABUS (FYUP UNDER NEP 2020)

Offered By Department Of GEOLOGY

Semester 1st to 3rd (Multi-Disciplinary Course)

Course Title: Introduction to Earth Sciences

Course Code: UGGLG22D101

Credits: 3

Contact Hrs:45

Max. Marks: 75

External: 55; Min Marks: 22

Internal (Continuous Assessment): 20 Marks, Min Marks: 08

Learning Objectives: To have a basic understanding of earth systems and processes. To pave the way for the initiation of geological thought and insight in fresh minds.

Learning Outcomes: To have an initial understanding of the relationship between past and present earth, earth materials and resources thus setting the foundation for a sustainable future.

UNIT 1:

Scope of Geology

15 Hrs

The universe and its origin, Cosmology and the origin of the planetary system; the place of the earth in the universe; the birth and age of the earth; Earth from the surface to its centre. Earth –a dynamic system, how it works.

UNIT 2:

15 Hrs

Earth Materials

Rocks and Minerals: Introduction to basic rock types Igneous, Sedimentary and Metamorphic. Rock cycle, sediments and soils; Rock and mineral identification

UNIT 3:

15 Hrs

Earth Resources

Energy and mineral resources; unstable earth and unsafe ground earthquakes, volcanoes, landslides. Global changes in the earth system. An introduction to climate change, greenhouse and icehouse shifts, faint-young sun paradox and thermal maxima.

Suggested Readings:

- Earth- Portrait of a Planet. Stephen Marshak
- Structure of Earth. Mitra and Marshak
- Geology. Arthur and Dorris Holmes
- Fundamentals of Physical Geology. Sreepat Jain
- Fundamentals of Geology. A B Roy
- Principles of Geology. Charles Lyell