Semester	AUG 2023
Open to semester	1
Course code	**EC1213**
Course title	**Evolution of Earth and life**
Credits	3 /
Course Coordinator & participating faculty (if any)	Devapriya Chattopadhyay
Nature of Course	Lectures and Tutorials
Pre-requisites	NA
Objectives (goals, type of students for whom useful, outcome etc)	This course provides an integrated view of an evolving planet, the Earth through ages and its dynamic interaction with life.
Course contents (details of topics /sections with no. of lectures for each)	1. Sources of information about the history of the Earth: Minerals, Rocks, Meteorites, Fossils. 2. Understanding the Earth processes: Plate tectonics, interaction between various spheres. 3. Concept of geologic time, Relative time, Absolute time, Geological time scale, 4. Early Earth processes: Development of moon, the ocean, the continents, and the atmosphere 5. Nature of paleontological data, Early life on Earth and its indirect evidences, direct evidence of early life, Great oxygenation and its relationship with life, evolution and radiation of metazoans, major evolutionary transitions, Mass extinctions, Anthropocene and its uniqueness, Sustenance of life and resources during Anthropocene.
Evaluation /assessment	End-Sem Examination-40% Mid-Sem Examination-30% Others-Internal assessment = 30 % (class test =20%, tutorial = 10%)%
Suggested readings (with full list of authors, publisher, year, edn etc.)	1. Earth Science (2014) by E. Tarbuck, F. Lutgens, and D. Tasa, Prentice Hall, 792 pp. 2. The Blue Planet (2011) by B J Skinner and B Murck, John Wiley and Sons, 656 pp. 3. How to build a habitable planet (2012) by C. H. Langmuir and W. Broecker, Princeton University Press, 718 pp. 4. History of life (2005) (4th ed.) by R. Cowen, Blackwell

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