

Semester	AUG 2022
Open to semester	21
Course code	<b>EC6392</b>
Course title	<b>Fundamentals of Geology</b>
Credits	/2
Course Coordinator & participating faculty (if any)	Devapriya Chattopadhyay
Nature of Course	Lectures
Pre-requisites	NA
Objectives (goals, type of students for whom useful, outcome etc)	To introduce the PhD students with diverse academic background to the fundamentals of geology. This course is essential for them to develop an understanding of the connection between different components of the Earth system.
Course contents (details of topics /sections with no. of lectures for each)	Introduction to raw materials: minerals, rocks – 1 Lecture Plate tectonics and its signature – 1 Lecture Relative time and Geologic time scale – 1 Lecture Absolute time and early attempts to estimate age – 1 Lecture Early Earth processes: Source of information – 1 Lecture Formation of the moon, atmosphere and ocean – 1 Lecture Nature of paleontological data – 1 Lecture Origin of life and the early life – 1 Lecture Mesozoic life and its impact – 1 Lecture Cenozoic climate and its impact on evolution – 1 Lecture
Evaluation /assessment	End-Sem Examination-40% Mid-Sem Examination-30% Others-3. Internal assessment: 30% (There may be drop test at the beginning. If a student is able to clear an appropriate cutoff, s/he can replace the lectures & end/mid semester examination with a project/reading assignment. Results of the drop test will be counted towards the evaluation.) %
Suggested readings (with full list of authors, publisher, year, edn etc.)	1) Planet Earth: Cosmology, Geology, and the evolution of life and Environment (2007) by C. Emiliani, Cambridge University Press, 718 pp. 2) Early earth Systems (2007) by H Rollinson, Blackwell Publishing, 285 pp.

	3) How to build a habitable planet (2012) by C. H. Langmuir and W. Broecker, Princeton University Press, 718 pp.
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