



THE EVOLUTION OF THE EARTH AND LIFE

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PRE-REQUISITES : Any student who has done basic Physics, Chemistry and Mathematics courses in 10+2 level.

INTENDED AUDIENCE : 1st-year undergraduates

COURSE OUTLINE :

This course provides an integrated view of the Earth as an evolving planet and its dynamic interaction with life. This is an ideal introductory course for 1st year BSc students specializing in any branch of science, particularly in Geology, Biology, Earth Science, Environmental Science.

ABOUT INSTRUCTOR :

Prof. Devapriya Chattopadhyay completed her undergraduate and post-graduate studies in Geology from Jadavpur University and Indian Institute of Technology Bombay, respectively. She received her Ph.D. in Geology (Paleontology) in 2009 from University of Michigan, USA. She worked as an Assistant Professor (limited-term) in the University of West Georgia till 2010 when she joined IISER Kolkata as an Assistant Professor. She was an Associate Professor in IISER Kolkata before joining IISER Pune in 2019. Devapriya is a Paleontologist and her research focus is to understand how marine organisms respond to their physical and biological environment in the ecological and evolutionary time scales. She has been teaching various introductory and advanced level courses of Earth Science since 2010.

COURSE PLAN :

Week 1: Historical perspective

Week 2: Raw materials

Week 3: Concept of geologic time

Week 4: Early Earth Processes

Week 5: Archean Events

Week 6: Evidence of life

Week 7: Proterozoic events

Week 8: Development of metazoans

Week 9: Major evolutionary transitions and their triggers

Week 10: Extinctions and their impact

Week 11: Cenozoic climate and its effect on biota

Week 12: Stepping into Anthropocene