

Environmental Sciences (ESI 101) Modular
I B Tech Common (2022–2023 Monsoon Semester), Section – E, F, G, H

LECTURE PLAN

S. No	Topics	Expected Lecture Hours	Faculty
1	Ecology and pollution: How ecosystem work, Ecosystems and evolution, human population change and the environment, environmental resistance and carrying capacity, fresh water resources and water pollution, mineral and soil resources.	03	SRS
2	Earth's Atmosphere: Structure and composition of atmosphere, stability of the atmosphere, wind and global atmospheric circulation, air pollutants and global atmospheric changes such as ozone depletion and acid rain. Environmental problems of urban areas air and air pollution.	03	MKJ
3	Climate; GHG and climate change, sources of GHG, Climate change science, The atmospheric energy balance and greenhouse effect and actions to address climate change.	03	SKG
4	Sustainability : Human use of earth, sustainable consumption, environmental justice and ethics, an overall plan for sustainable living, environmental pollution caused by power plants, vehicles, open burning of solid wastes and fire crackers.	03	BP
Grand Total		12	

Text Book:

1. Berg, L. R., Hager, M. C., & Hassenzahl, D. M. (2011). Visualizing environmental science. Wiley.
2. Introduction to environmental engineering (5th edition) by Mackenzie L Davis and David A Cornwell (2014). Mc Graw Hill publishers.

Reference books

1. Introduction to Atmospheric Chemistry, by Daniel J. Jacob, Princeton University Press, 1999.
2. First principles of meteorology and air pollution by Mihalis Lazaridis (2010). Springer

Weightage

Regular Assessment – quiz (1) - 30 Marks

End Semester – 70 Marks

Abbreviations


SRS – Prof Sukha Ranjan Samadder

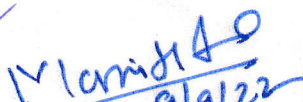
MKJ- Prof Manish Kumar Jain

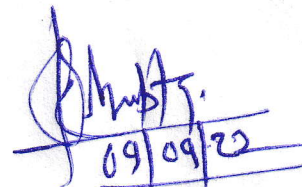
SKG- Prof Sunil Kumar Gupta

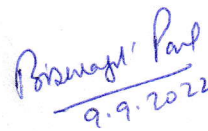
BP- Prof Biswajit Paul

Course Co-ordinator - Prof B Paul


(Sukha Ranjan Samadder)


(Manish Kumar Jain)


(Sunil Kumar Gupta)


(Biswajit Paul)