1.	Title of the course	Ecology and Environment
2.	Course number	ES202L
3.	Structure of credits	2-0-0-2
4.	Offered to	UG
5.	New course/modification to	Modification To ES2103/8
6.	To be offered by	Department of Civil and Environmental Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** The objectives of the course are: To prepare students to understand and address the ecology and environmental issues from a problemoriented with an interdisciplinary perspective. To equip students with a knowledge and skills to analyse and understand the interactions between social and environmental processes.	
10.	**Course Content:** Introduction to environmental science; concepts of ecosystem and environment; Diversity and distribution - field trip - Evolution-Energy flow and nutrient cycling in ecosystems; Ecological interactions and climate change; Conservation biology-threats to biodiversity- Man-wildlife conflicts; Endangered and endemic species. Principles of sustainable development; Sustainable development goals; Urban and rural environmental problems; Air and water quality management; Solid and hazardous waste management; Environmental impact assessment; Contemporary environmental issues - rain water harvesting, global warming and climatic change, climate vulnerability, carbon and ecological footprints; Human population change and environment.	
11.	**Textbook(s):** 1. Gilbert M M and Wendell E, *Introduction to Environmental Engineering and Science*, Prentice Hall (2008). 2. Odum E P and Barrett G W, *Fundamentals of Ecology*, Cengage (2017).	
12.	**Reference(s):** 1. William P C and Mary A C,Environmental Science, McGraw-Hill (2014). 2. Odum E P, *Ecology: A Bridge between Science and Society*, Sinauer Associates Inc (2007). 3. Rachel C, Linda L and Edward O W, *Silent Spring,* , Houghton Mifflin Company (2002).	