

1.	Title of the course	Ecology, Environment and Sustainability
2.	Course number	ES204L
3.	Structure of credits (L-T-P-C)	2-0-0-2
4.	New course/modification to	Modified with ES202L/ECOLOGY AND ENVIRONMENT
5.	To be offered by	Chemical Engineering
6.	Prerequisite	None
7.	<b>Course Objective(s):</b> To provide students with a knowledge and skills to analyse and understand the interactions between social, environmental and sustainable processes.	
8.	<b>Course Content:</b> 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.	
9.	<b>Textbook(s):</b> 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).	
10.	<b>Reference(s):</b> 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).	