

As Per NEP 2020

**Tolani College of
Commerce
(Autonomous)**



Title of the Course: Environmental Science- I

Name of the Programme: Bachelor of Commerce

Semester I

Syllabus for 2 Credit Course

From the academic year- 2024-2025

Name of the Course: Environmental Science- I

Sr. No.	Heading	Particulars
1	Description the course:	The course is an introductory inter-disciplinary course to understand working earth's systems. It focusses on the holistic study to understand the interrelationship between humans and nature.
2	Vertical:	Value Education Course
3	Type:	Theory
4	Credit:	2 credits
5	Hours Allotted:	30 Hours
6	Marks Allotted:	50 Marks Continuous Evaluation 20 Marks Semester End Examination 30 Marks
7	Course Objectives: By end of this course learners should: <ol style="list-style-type: none"> 1. appreciate the different facets of environment and the natural world 2. understand the role of humans as agents of environmental degradation 	
8	Course Outcomes: The learners shall be: <ol style="list-style-type: none"> 1. sensitised about environmental issues and the need for conservation of environment 2. able to appreciate Environmental Science as a multi-disciplinary tool for conservation rather than merely a subject 	

9	<p>Module 1: Understanding the environment (15 Hours)</p> <ol style="list-style-type: none"> Environment: Meaning, definition, nature, scope and its components; Human and environment relationship Ecosystem: Definition, Components and types, Functioning and structure- Food Chain and Food Web, Ecological Pyramids, and Biogeochemical cycles. Natural Resources: Definition, importance, Classification, Resource utilisation, Importance of forest, water and energy as natural resources Biodiversity: Definition, Types of biodiversity, Importance of biodiversity <p>Module 2: Problems Associated with Environmental Degradation (15 Hours)</p> <ol style="list-style-type: none"> Rise in human population and urbanization: Population- Definition, Causes and Impacts of population rise, Concept of Population density, Urbanisation- Definition causes and impacts, Concept of Urban Heat Island Pollution: Causes and impacts of Air, Water, Land, Noise, Light pollution Global Warming and Climate Change: Concept, Causes and impacts Ozone depletion, Global warming and Climate change with respect to humans and nature Nature in danger: Threats to biodiversity; Impacts of biodiversity loss; IUCN Red data list; Causes and impacts of resource depletion vis-à-vis forest, water and energy
10	<p>Reference Books:</p> <ol style="list-style-type: none"> McKinney M.L. & Schoch R.M., 1998: Environmental Science, Jones & Bartlett Publishers, London Rao K.L. 1975: India's Water Wealth, Orient Longman Ltd. New Delhi S.S. Negi (1993) Biodiversity and its Conservation in India, Indus Publications, New Delhi Rajgopalan C (2015): Environmental Studies. Oxford University Press Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication Mhaskar A.K., Matter Hazardous, Techno-Science Publication Zimmerman W E (1972) Zimmerman's World Resources and Industries' Harper & Row
11	<p>Other Readings:</p> <ol style="list-style-type: none"> Down to Earth, Centre for Science and Environment Census Handbooks Human Development Report-2019 Provisional Population Totals Paper 1 of 2011 India, Office of the Registrar General & Census Commissioner India. Product No. 00-001-2011-Cen-Book (E) 13 p.p Human Development Report 2020 "The next frontier Human development and the Anthropocene", United Nations Development Programme (eISBN: 978-92-1-005516-1) 412 p.p http://hdr.undp.org/en/2020-report
12	<p>Websites:</p> <ol style="list-style-type: none"> https://unfccc.int/ https://www.cbd.int/ https://cpcb.nic.in https://mpcb.gov.in https://www.iucnredlist.org/

12	Internal Continuous Assessment: 40%	Semester End Examination: 60%		
13	Continuous Evaluation through:	1. Fieldwork-based project work and report or assignment or presentation or report-writing or article/ book review or topic-based activity	10 Marks	
		2. MCQ Based Test	10 Marks	
		Total	20 Marks	
14	Format of Question Paper:			
		Question Number	Nature of Questions	Maximum Marks
		1)	Attempt any THREE of the following: (From Module I)	15
			A.	
			B.	
			C.	
			D.	
		2)	Attempt any THREE of the following: (From Module II)	15
			A.	
			B.	
			C.	
			D.	

Signatures of Team Members

Sr. No.	Name	Signature
1.	Mr. Kaustubh Bhagat	