

COURSE CURRICULUM

PART A: INTRODUCTION

PART A: INTRODUCTION				
Program: Certificate Course		Semester- I Sem		Session: 2024-25
1	Course Code	AEC 01		
2	Course Title	Environmental Studies		
3	Course Type	Ability Enhancement Course (AEC)		
4	Prerequisite (If Any)	As per requirement		
5	Course Outcome (CO)	At the end of this course, students will be able to – CO 01: relate the basic concept of the environment CO 02: explain environmental alterations CO 03: develop skills in environmental measurement CO 04: examine correction measures of the environment		
6	Credit Value	02 C	01 Credit = 15 Hrs. Teaching-Learning	
7	Total Marks	Max. Marks: 50		Minimum Pass marks: 20

PART: B CONTENT OF THE COURSE

Total No. of Teaching-Learning Periods: 30Hours/ 30Periods

UNIT	TOPIC (Course Contents)	No. of Hours
I	Basic Composition: <ol style="list-style-type: none"> 1. Abiotic and Biotic components of the environment 2. Biodiversity—Concept, types, and measures about its protection 3. Basic concept of Bio-Geo Chemical Cycle 4. Energy Flow in an ecosystem 	07
II	Alterations in Environment: <ol style="list-style-type: none"> 1. Concept and components of the pond ecosystem 2. Air pollution and measures for its control 3. Water pollution and measures for its control 4. Global warming, Climate change, and possible measures 	07
III	Measurements of Environmental Components <ol style="list-style-type: none"> 1. Soil composition and methods of its analysis 2. Water analysis methods for DO, BOD, COD 3. Water analysis methods for pH, TDS, Turbidity, Salinity, and Alkalinity 4. Information about environmental factors—PM-10, PM-2.5, NO₂, O₃ 	08
IV	Application Measures <ol style="list-style-type: none"> 1. Useful microbes to control water pollution 2. Useful microbes to control soil pollution 3. Concept of Biodegradation 4. Concept of Phytoremediation 	08
Key Words	Ecosystem, Pollution, Climate Change, Biodegradation	

Name and Signature of Convener and Members of CBOS

Dr. Ujjwal Singh

B
Dr. Anus Kr. Kanyu)

er and Members of CBOS

(Dr. Sanjane Bhayat) Dr. Shivani Shc

Dr. Shubha Divan
11/6/24
Dr. Shubha Divan

(Keshav
Keshav Keshav Keshav)

Dr. Pramod
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Behar (11/6/24)
Behar)

Amrit Pande
(Dr. Amrit Pande)

PART-C: Learning Resources

Text Books, Reference Books, and Others

Text Books Recommended –

1. Ecology and Environment, 8th Edition, P.D.Sharma, Rastogi Publication, Meerut.
2. Environmental Biology, 2nd Edition, P.D.Sharma, Rastogi Publication, Meerut.
3. Environmental Biology and Toxicology, 2nd Edition, P.D.Sharma, Rastogi Publication, Meerut.
4. Environmental Studies, 1st Edition, S.V.S.Rana, Rastogi Publication, Meerut.
5. Environmental Biotechnology, 1st Edition, S. V. S. Rana, Rastogi Publication, Meerut.

Online Resources–

- e-Resources / e-books and e-learning portals

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PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 Marks

Continuous Internal Assessment (CIA): 15 Marks

End Semester Exam (ESE): 35 Marks

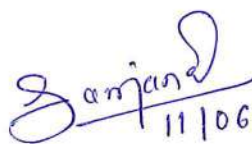
Continuous Internal Assessment (CIA): (By Course Teacher)	Internal Test / Quiz-(2):	10 & 10	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against 15 Marks
	Assignment/Seminar +Attendance -	05	
	Total Marks -	15	

End Semester Exam (ESE):

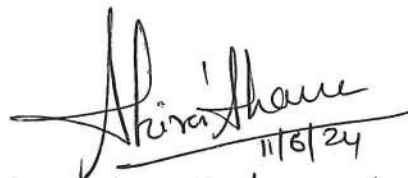
Two sections – A & B

Section A: Q1. Objective – 05 x1= 05 Mark; Q2. Short answer type- 5x2 =10 Marks
Section B: Descriptive answer type qts., 1out of 2 from each unit- 4x05 =20 Marks

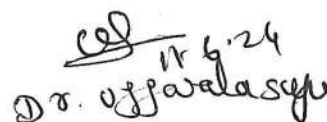
Name and Signature of Convener & Members of CBoS:


11/06/24

(Dr. Sanjani Bhagat)

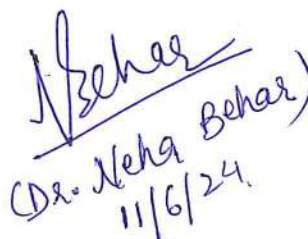

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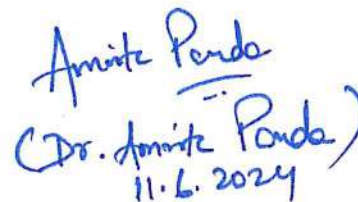
(Dr. Shivani Sharma)


11/6/24
Dr. Vijayalaxmi

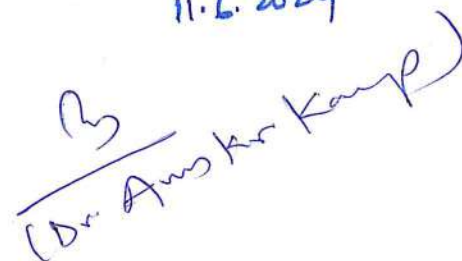

11/06/24

(Dr. Shubha Diwan)


11/6/24
Dr. Neha Behar


11.6.2024
Dr. Amrit Pande


Dr. Prasad Kumar


Dr. Anurag Kaur