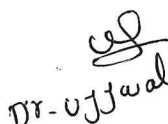
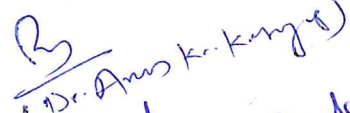
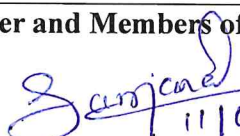


FOUR YEAR UNDERGRADUATE PROGRAM (2024 – 28)

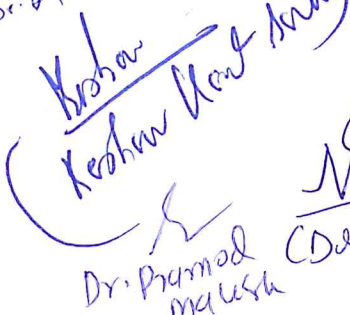
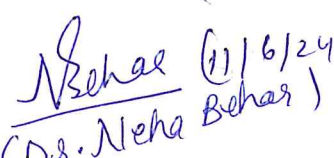
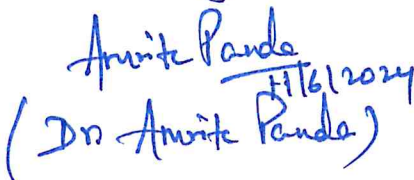
COURSE CURRICULUM

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: 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: 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 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, NO ₂ , O ₃		08
IV	Application Measures 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 Dasgupta

 Dr. Anurag K. Kung'u

 Dr. Sanjana Bhagat

 Dr. Shironi Sh

 Dr. Shubha Diwan

 Dr. Pramod Malush

 Dr. Neha Behar

 Dr. Anurite Panda

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

Online Resources–

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

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

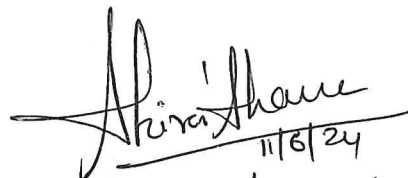
Continuous Internal Assessment (CIA): (By Course Teacher)	Internal Test / Quiz-(2):	10 & 10	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against 15 Marks
	Assignment/Seminar +Attendance -	05	
	Total Marks -	15	

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

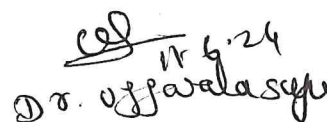
Name and Signature of Convener & Members of CBoS:


11/06/24

(Dr. Sanjane Bhagat)

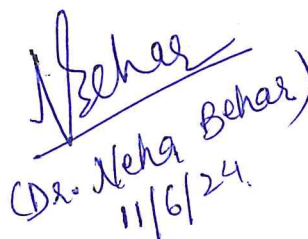

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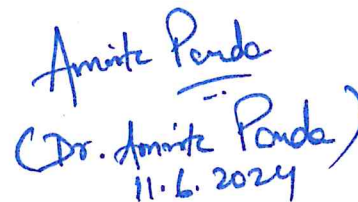
(Dr. Shivani Sharma)


11/6/24
Dr. Vijayalaxmi

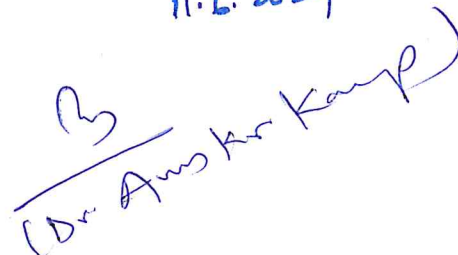

11/06/24

(Dr. Shubha Diwan)


11/6/24
Dr. Neha Behar


11.6.2024
Dr. Amrit Pande


Dr. Prasad Kumar


Dr. Anurag Kaur