

ECOLOGY AND ENVIRONMENTAL SCIENCE

Programme outcomes:

1. The programme will enable the students to gather in-depth knowledge on the basic concepts of Ecology and Environmental Science.
2. The programme will expose the students about the diverse environmental conditions.
3. The programme will impart skill-based knowledge among the students.
4. The programme will help the students in the use of different indices, tools and techniques for the collection of proper and systematic scientific data and also their effective analysis and interpretation.
5. The programme will enlighten students about the environmental values, ethics, the importance biodiversity and need for conservation.
6. The programme will help students to develop knowledge and understanding of different ecosystem services and their importance.
7. The programme will help students to gather knowledge about the various acts, treaties and action for the cause of preservation and conservation.
8. The programme will help students to develop an in-depth idea regarding various types of disaster prevalent in northeast Indian states and also aware students about disaster management.
9. The programme will expose the students to the field of community sensitization.

Course outcomes:

Semester	Course Code	Name of the Paper	Course Outcome
I	Discipline Specific Minor (DSM-101)	Fundamentals of Ecology	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> • Gather in-depth knowledge on the basic concepts of Ecology and Environmental Science. • Learn the abiotic and biotic factors that influence ecosystem. • Understand the concepts of the basic laws in ecology. • Understand the important biogeochemical cycles • Learn about various community concepts
	Skill Enhancement Courses (SEC-101)	Bamboo Cultivation, Utilization and Management	<p>After completion of this course students will be able to:</p> <ul style="list-style-type: none"> • Gather knowledge of diversity, distribution and growth behaviour of bamboo • Develop an understanding of nursery management and silvicultural management • Develop an understanding of processing and preservation technology for storage of fresh bamboo shoots • Gather knowledge of traditional and commercial utilization of bamboos • Take up nursery management; silvicultural management; various bamboo products for entrepreneurship development
	Interdisciplinary Course (IDC101)	Basic Concepts of Ecology and Environmental Science	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concept and need of Ecology and Environmental Science

			<ul style="list-style-type: none"> •Understand the concept of structure and function of different components of the environment and appreciate the interactions of different components of ecosystems •Understand the transfer of energy from one trophic level to another and biogeochemical cycles in an ecosystem •Gather knowledge and develop an in-depth understanding of the chemistry of the atmosphere, hydrosphere and lithosphere
II	Discipline Specific Minor (DSM-151)	Basic Concepts of Ecology	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> •Gather in-depth knowledge on the basic concepts of Ecology and Environmental Science. •Learn the abiotic and biotic factors that influence ecosystem. • Understand the concepts of the basic laws in ecology. •Understand the important biogeochemical cycles •Learn about various community concepts
	Skill Enhancement Courses (SEC-151)	Environmental Impact and Risk Assessment	<p>After completion of this course students will be able to:</p> <ul style="list-style-type: none"> • Appreciate the philosophies and historical development of EIA in India and elsewhere. • Demonstrate sound understanding of the EIA process and the methodologies to prepare an EIS.

			<ul style="list-style-type: none"> • Critically examine development actions with the fundamentals understanding of EIA and sustainable development.
	Interdisciplinary Course (IDC151)	Natural Resources, Biodiversity Conservation and Environmental Pollution	<p>After completion of this course students will be able to:</p> <ul style="list-style-type: none"> • Understand the concept of natural resource and identify different types of natural resources • Understand the concepts of biodiversity and conservation. • Discuss the factors impacting biodiversity loss in India and the world. • Gather knowledge about the various types of pollution; pollutants and their impacts on environment • Understand the critical linkage between environmental pollution and human health and also sensitize themselves to adverse impacts of pollution • Develop perspective on important environmental issues and gain a comprehensive knowledge of these issues • Develop an understanding of urbanization and its impacts on environment
	Common Value Added Course (VAC-151)	Environmental Studies	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concept and need of Ecology and Environmental Science. • Understand the concept of structure and function of different components of the Environment and appreciate the interactions of different components of

			<p>ecosystems.</p> <ul style="list-style-type: none">•Understand the types, causes, effects of environmental pollution.•Gather knowledge and develop an in-depth understanding on biodiversity of India and its conservation.•Understand the concept of Land Resources, Forest Resources, Water Resources and Energy Resources.
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