

**BCA 2<sup>nd</sup> Semester**

030010212-AECC2 Environmental Studies

**Teaching Schedule**

**Objectives:** To make students aware about the variation in environment and its impact on business and on the society as a whole.

**Course Outcomes:** Upon completion of the course, students shall be able to

C01: Identify the multidisciplinary nature of environment.

C02: Describe the concepts of natural resources along with categories.

C03: Discuss biodiversity and identify current threats and techniques to avoid it.

C04: Analyse role of an individual in prevention of environment pollution.

C05: Discuss social issues and possible solution affected to environment.

C06: Describe causes, effect and control measure of urban and industrial waste to save human health.

Unit	Sub Unit	No. of Lecture(s)	Topics	Reference Chapter/Additional Reading	Teaching Methodology to be used	Evaluation Parameters
<b>1</b>	<b>The Multidisciplinary nature of environmental studies:(Total Hours:3 hours)</b>					
1	1.1	1	The Multidisciplinary nature of environmental studies	(EB)#1-Page No.1-5	Chalk and talk	
	1.2	1	Need for public awareness.	(EB)#1-Page No.5	Discussion + Chalk and talk	
	1.3	1	Institutions in Environment	(EB)#1-Page No.6-13	Discussion + chalk and talk	
<b>2</b>	<b>Natural Resources:(Total Hours:4 hours)</b>					
	2.1	1	Introduction	(EB)#2-Page No.15-20	Discussion + Chalk &Talk + PowerPoint Presentation	Quiz
	2.2	3	Renewable and non-renewable resources: types	(EB)#2-Page No.21-50	Discussion + PowerPoint	

					Presentation	
<b>3</b>	<b>Biodiversity and it's Conservation:(Total Hours:3 hours)</b>					
	3.1	1	Introduction- Definition: genetics, species and ecosystem diversity	(EB)#4-Page No.85- 87	Chalk &Talk + PowerPoint Presentation	Unit Test -1
	3.2	1	Biodiversity at global, national and local level	(EB)#4-Page No.92- 93	Chalk &Talk	
	3.3		Hot-spots of biodiversity	(EB)#4-Page No.94- 96	Chalk &Talk	
	3.4	1	Threats to biodiversity: habitats loss, poaching of wild life, man wildlife conflicts.	(EB)#4-Page No.96- 99	Discussion	
<b>4</b>	<b>Environmental Pollution: (Total Hours:2 hours)</b>					
	4.1	1	Definition Causes, effects and control measures of: Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards	(EB)#5-Page No.118-150	Discussion + chalk & talk	Open Book Test
	4.2	1	Role of an individual in prevention of pollution	(EB)#5-Page No.160-161	Discussion + chalk & talk	
<b>5</b>	<b>Social issues and the Environment:(Total Hours:7 hours)</b>					
	5.1	3	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust	(EB)#6-Page No.1189-196	Discussion + PowerPoint Presentation	

	5.2	1	Consumerism and waste products	(EB)#6-Page No.198-201	Discussion + Chalk & Talk	Unit Test -2
	5.3	1	Environmental ethics: Issues and possible solution	(EB)#6-Page No.182-189	Discussion + Chalk &Talk	
	5.4	1	The Environment Protection Act	(EB)#6-Page No.160-161	Discussion + PowerPoint Presentation	
	5.5		The Air (prevention and control of pollution) Act	(EB)#6-Page No.160-161	Discussion + Chalk &Talk	
	5.6	1	The Water (prevention and control of pollution) Act	(EB)#6-Page No.204-208	Discussion + Chalk &Talk	
	5.7		Forest Conservation Act	(EB)#6-Page No.204-208	Discussion + Chalk &Talk	
<b>6</b>	<b>Human population and the environment:(Total Hours:5 hours)</b>					
	6.1	1	Environment and human health	(EB)#7-Page No.226-232	Discussion + PowerPoint Presentation	Internal Examination
	6.2	1	Women and child welfare	(EB)#7-Page No.244	Discussion + Chalk &Talk	
	6.3	1	Ill-effects of fire works	(EB)#7-Page No.246	Discussion	
	6.4	1	Role of information technology in environment and human health Case studies	(EB)#6-Page No.248	Chalk &Talk	
	6.5	1	Solid waste management: Causes, effects and control measure of urban and	(EB)#6-Page No.246	Chalk &Talk	

			industrial waste			
<p>Text Books:</p> <ol style="list-style-type: none"> <li>1. Textbook of Environmental studies, ErachBharucha, UGC (EB)</li> <li>2. Fundamental concepts in Environmental Studies, D D Mishra, S Chand &amp; Co Ltd (DD)</li> </ol> <p>References:</p> <ol style="list-style-type: none"> <li>1. Benny Joseph (2009), Environmental Studies, Second Edition, The McGraw-Hill Companies, New Delhi. (BJ)</li> <li>2. Bharucha Erach, (2003), The Biodiversity of India, Mapin Publishing Pvt. Ltd, (BE)</li> <li>3. Schramm, Gunter, J. Warford, Jeremy (1989), Environmental Management and Economic Development, Johns Hopkins University Press (SG)</li> </ol>						

**Course objectives and Course outcomes mapping:**

- To aware about the environment: C01, C02, C03, C06
- Analyse impact of environment on society: C04, C05, C06

**Course units and Course outcomes mapping:**

Unit No.	Unit	Course outcome					
		C01	C02	C03	C04	C05	C06
1	The Multidisciplinary nature of environmental studies	✓					
2	Natural Resources		✓				
3	Biodiversity and it's Conservation			✓			
4	Environmental Pollution				✓	✓	✓
5	Social issues and the Environment					✓	
6	Human population and the environment					✓	✓

**Programme Outcomes:**

PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.

PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.

PO3: Understanding of professional and ethical role and responsibility.

PO4: Recognition of the need for and ability towards life-long learning.

PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web & Mobile technology and relevant modern issues.

PO6: Ability to demonstrate the use of modern tools, models and languages to solve problems related to software development.

PO7: An ability to communicate effectively with a range of audiences.

**Course Outcomes and Program Outcome Mapping:**

Course Outcomes	Program outcome						
	P01	P02	P03	P04	P05	P06	P07
C01	✓		✓	✓			✓
C02	✓			✓			✓
C03			✓				
C04							
C05	✓		✓	✓			✓
C06			✓	✓			

### Modes of Transaction (Delivery):

Various methods of teaching should be employed depending on the objectives of the content.

Unit No	Topic Detail	Teaching Approach	P0 mapped
3	Hot-spots of biodiversity.	Group discussion (Students will be divided into two groups and discussion of which approach must be used under which situation)	P01, P04, P07
4	Role of an individual in prevention of pollution	Open book study and Hands-on activity	P01, P04

### Activities/Practicum:

The following activities shall be carried out by the students.

1. Students may be form a group under the guidance of teacher and covering various concepts using videos along with field projects.

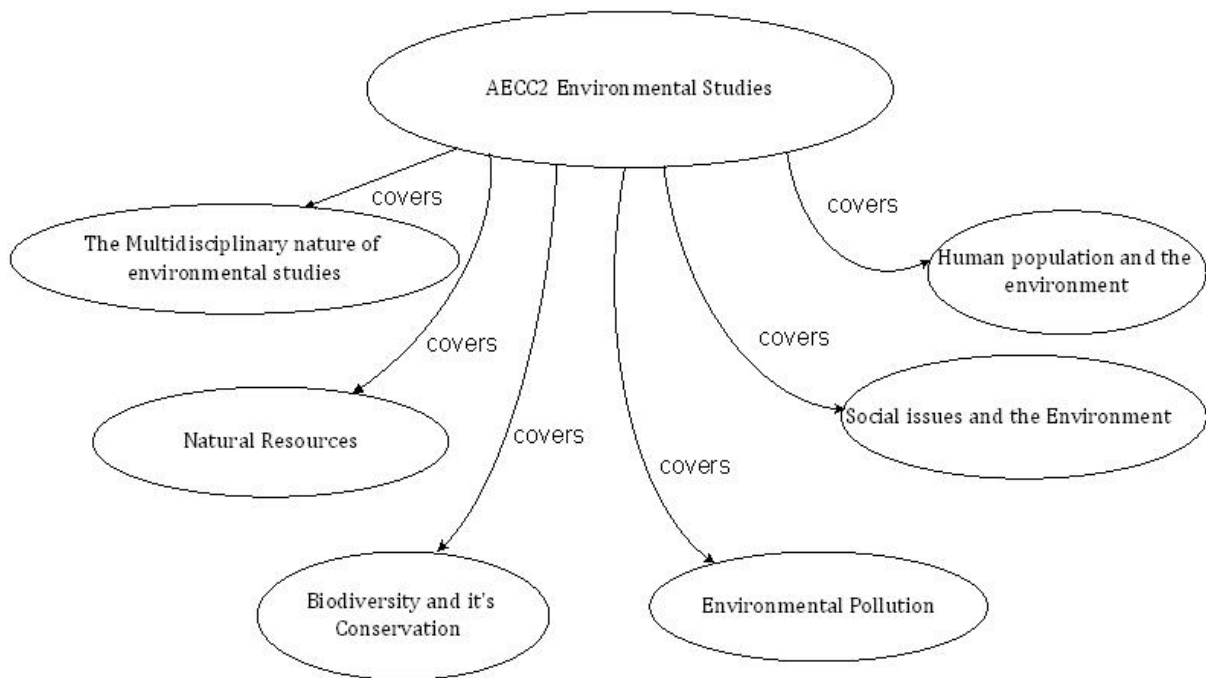
The following activities shall be carried out by the teacher.

Faculty members shall explain in a class room using black board and multimedia projector through PowerPoint presentation..

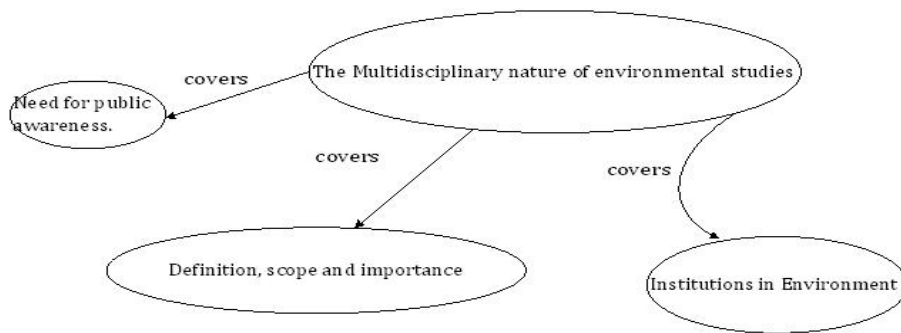
Learner	Activities to be done	P0 mapped
For slow learners	Question and answer after completion of each unit.	P04
For advanced learners	Give a various scenario and identify the effect on environment.	P04, P07
For all	Group Discussion of recent trends in environment.	P01, P07

### Concept map:

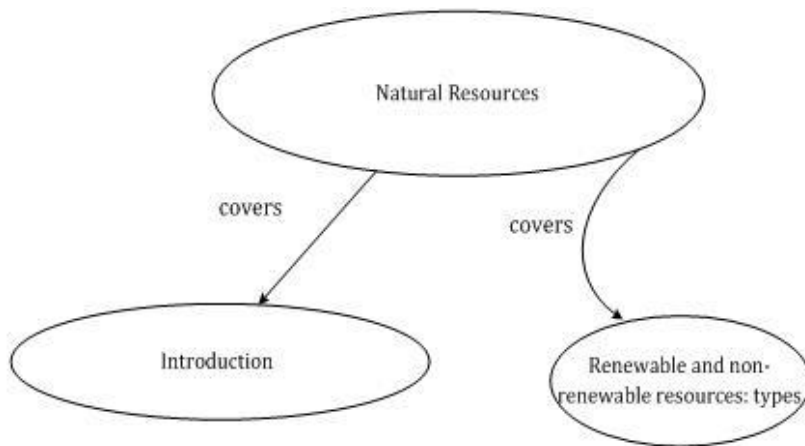
Course: Environmental Studies



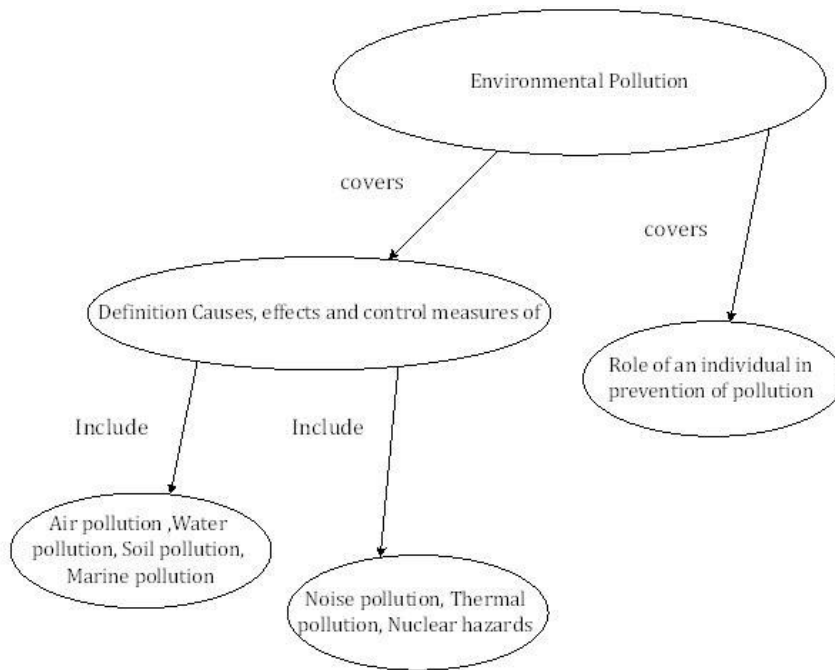
Unit 1



Unit 2

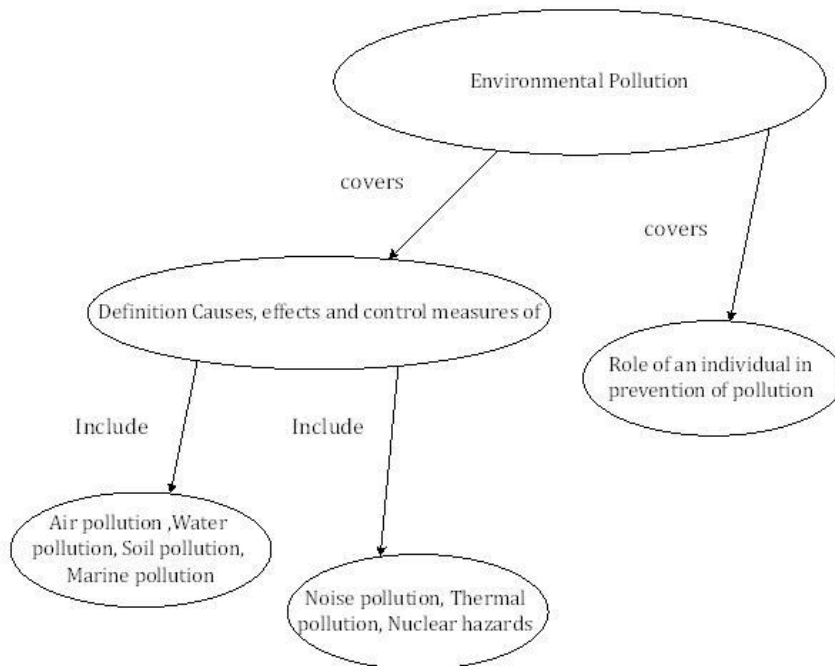


Unit 3

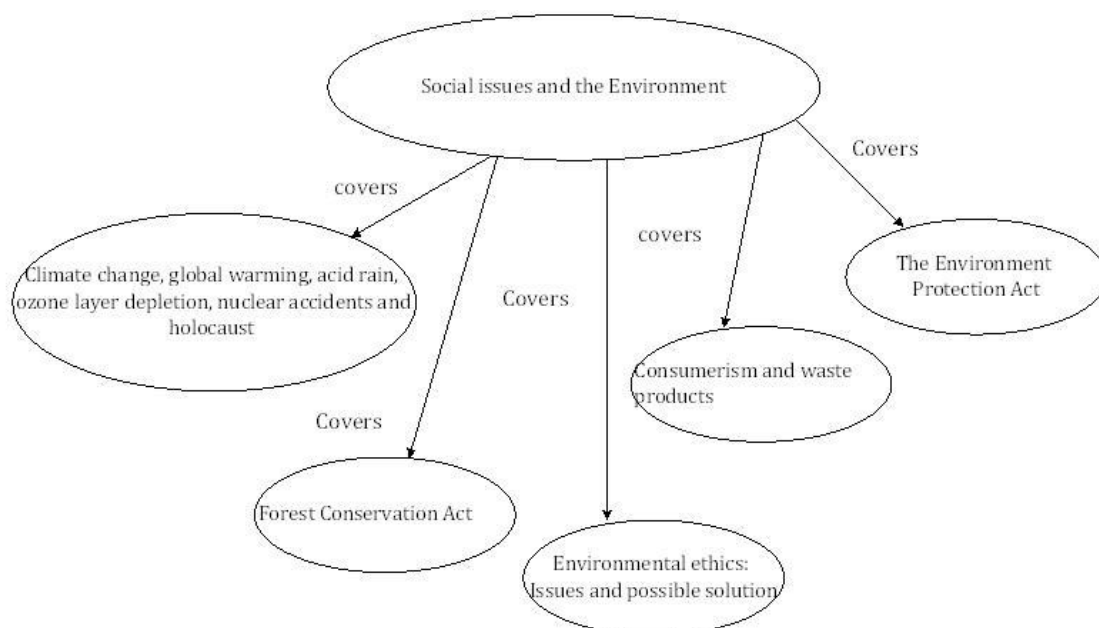




Unit 4



Unit 5



Unit 6

