



**Subject:** Sustainable Development – BETXX10206

**Type of course:** Multidisciplinary

**Prerequisite:** Basic knowledge about sustainable development.

**Rationale:** For sustainable development to be achieved, it is crucial to harmonize three core elements: economic growth, social inclusion and environmental protection. These elements are interconnected and all are crucial for the well-being of individuals and societies.

**Teaching and Examination Scheme:**

Teaching Scheme			Credits C	Examination Marks					Total Marks
CI	T	P		Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
3	0	2	4	60	30	10	20	30	150

*Legends: CI-Class Room Instructions; T – Tutorial; P – Practical; C – Credit; ESE – End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA – Continuous Assessment; ALA- Active Learning Activities.*

**Course Content:**

Unit No.	Course content	Hrs	% Weightage
1	<p><b>Introduction to Sustainable Development</b> Broad introduction to Sustainable Development – its importance, impact and implications, Strategies for SD. MDGs and SDGs (Millennium development goals and Sustainable development goals): Introduction, Progress in MDGs and Build up SDGs, The SDGs and targets, Deference between SDGs and MDGs and Sustainable Development and India.</p>	8	25



2	<p><b>Dimensions to Sustainable Development</b> Society, environment, culture and economy. <b>current challenges</b> : natural, political, social, economic.</p> <p>Sustainable development initiatives and policies of various countries: global, regional, community. local Needs of present and future generation – political, economic, and environmental.</p>	8	25
3	<p><b>Environmental legislation</b> Environmental policies in India The Wildlife Protection Act. 1972 The Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act. 1981 The Environmental (Protection) Act. 1986 Forest Conservation Act. 1980 The Biological Diversity Act. 2002</p>	8	25
4	<p><b>Sustainable practices :</b> <b>Green building:</b> Goals , advantages, disadvantages, Principles, various green materials, green building rating system . <b>Life Cycle Analysis (LCA):</b> Introduction Process, impact, advantages, limitation. <b>Cradle to cradle Concept</b> <b>Concept of 5R</b> :Refuse , Reduce, Reuse, Repurpose, and Recycle</p>	8	25

**Continuous Assessment:**

Sr. No	Active Learning Activities	Marks
1	<p><b>Share your views on the SDGs</b> Make a report on your views about SDGs. Upload report on GMIU Web Portal.</p>	10
2	<p><b>Contribution to the SD</b> Submit a photos or Reels of your contribution to the sustainable development in GMIU web portal.</p>	10



3	<p><b>Effects of laws</b>                  Write a positive effect of environmental legislation on given topics and submit it on GMIU web portal.                  1.The Wildlife Protection Act. 1972                  2.The Environmental (Protection) Act. 1986                  3.Forest Conservation Act. 1980</p>	10
Total		30

**Practical :**

❖ Case Studies & Projects on Rural Sustainable Development (Indian village perspectives).

Sr. No.	Practical Name
1	History of sustainable development in India.
2	Select a village and Brief history with GPS location and collect data on available resources in village.
3	Current challenges for sustainable development in selected area.
4	Conflicts for Sustainable development in selected area.
5	Steps to achieving sustainable development goals.
6	Concept of Green building (Goals and Principle)
7	Concept of 5R.

**Suggested Specification table with Marks (Theory):60**

Distribution of Theory Marks (Revised Bloom’s Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	40%	35%	25%	0	0	0

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.



**Course Outcome:**

After learning the course the students should be able to:	
CO1	Understand the sustainable development and their goals.
CO2	Learn about current challenges and policies of sustainable development.
CO3	Know about environmental legislation and how conserve or preserve environment.
CO4	Apply the 5R concept for sustainable practices.

**Instructional Method:**

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

**Reference Books:**

- [1] Environmental studies by Benny Joseph, Tata MCgraw-Hill-2005
- [2] Environmental studies by Dr. D.L. Manjunath, Pearson Education-2006
- [3] Environmental studies by R. Rajagopalan, Oxford Publication-2005
- [4] Principles of Environmental Science by Curnningham. W.P. & Cunningham M.A., TataMcGraw Hill Publishing Co. Ltd., New Delhi. , 2009

