

## KU3VACBBA200: ENVIRONMENTAL SCIENCE AND SUSTAINABILITY

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
III	VAC	200-299	KU3VACBBA200	3	4

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	15T+10P	35T+15P	75	1.5

### Course Description:

This course aims to familiarize students with fundamental environmental concepts and their relevance to business operations, preparing them to address forthcoming sustainability challenges. It is designed to equip students with the knowledge and skills needed to make decisions that account for environmental consequences, fostering environmentally sensitive and responsible future managers. Through this holistic approach, students will gain a deep understanding of environmental processes, the importance of sustainable practices, and their role in promoting sustainability within business contexts.

### Course Objective(s):

1. This course aims to familiarize students with basic environmental concepts, their relevance to business operations, and forthcoming sustainability challenges.
2. This course will equip students to make decisions that consider environmental consequences.
3. This course will enable future business graduates to become environmentally sensitive and responsible managers.

### Course Outcomes:

CO No.	Expected Outcome	Learning
--------	------------------	----------

		Domains
1	Explore the basic environmental concepts and issues relevant to the business and management field.	
2	Recognize the interdependence between environmental processes and socio- economic dynamics.	
3	Determine the role of business decisions, policies, and actions in minimizing environmental degradation.	
4	Identify possible solutions to curb environmental problems caused by managerial actions.	
5	Develop skills to address immediate environmental concerns through changes in business operations, policies, and decisions.	

**Contents for Classroom Transaction:**

<b>M O D U L E</b>	<b>U N I T</b>	<b>DESCRIPTION</b>	<b>HOURS</b>
		<b>Environment and Sustainability</b>	<b>10</b>
<b>I</b>	1	Fundamental environmental concepts and their relevance to business operations; Components and segments of the environment, the man-environment relationship, and historical environmental movements.	
	2	Concept of sustainability; Classification of natural resources, issues related to their over utilization, and strategies for their conservation. Sustainable practices in managing resources, including deforestation, water conservation, energy security, and food security issues. The conservation and equitable use of resources, importance of public awareness and education.	
<b>II</b>		<b>Ecosystems, Biodiversity, and Sustainable Practices</b>	<b>10</b>

	3	Various natural eco systems, learning about their structure, functions, and ecological characteristics. The importance of biodiversity, the threats it faces, and the methods used for its conservation.	
	4	Ecosystem resilience, homeostasis, and carrying capacity, emphasizing the need for sustainable ecosystem management. Strategies for in situ and ex situ conservation, nature reserves, and the significance of India as a mega diverse nation.	

	<b>Environmental Pollution, Waste Management, and Sustainable Development</b>		<b>10</b>
<b>III</b>	5	Various types of environmental pollution, including air, water, noise, soil, and marine pollution, and their impacts on businesses and communities. Causes of pollution, such as global climate change, ozone layer depletion, the greenhouse effect, and acid rain, with a particular focus on pollution episodes in India.	
	6	Importance of adopting cleaner technologies; Solid waste management; Natural and man-made disasters, their management, and the role of businesses in mitigating disaster impacts.	

	<b>Social Issues, Legislation, and Practical Applications</b>		<b>10</b>
<b>IV</b>	7	Dynamic interactions between society and the environment, with a focus on sustainable development and environmental ethics. Role of businesses in achieving sustainable development goals and promoting responsible consumption.	
	8	Overview of key environmental legislation and the judiciary's role in environmental protection, including the Water (Prevention and Control of Pollution) Act of 1974, the Environment (Protection) Act of 1986, and the Air (Prevention and Control of Pollution) Act of 1981. Environmental justice, environmental refugees, and the resettlement and rehabilitation of affected populations; Ecological economics, human population growth, and demographic changes in India.	

<b>V</b>	<b>Teacher Specific Module ( Practicum)</b>		<b>20</b>
----------	---	--	-----------

Field studies and survey, Community engagement and project based learning, Sustainable practices and resource management , policy and governance, Laboratory work
---

**Text Books (Latest Editions):**

- Poonia, M.P. *Environmental Studies* , Khanna Book Publishing Co.
- Bharucha, E. *Textbook of Environmental Studies*, Orient Blackswan P.Ltd
- Dave, D., & Katewa, S. S. *Text Book of Environmental Studies*. Cengage Learning India Pvt Ltd.
- Rajagopalan, R. *Environmental studies: from crisis to cure* , Oxford University Press.
- Miller, G.T. & Spoolman S. *Living in the Environment*. Cengage.
- Basu, M., & Xavier Savarimuthu, S. J. *Fundamentals of environmental studies*. Cambridge University Press.
- Roy, M. G. *Sustainable Development: Environment, Energy and Water Resources*. Ane Books.
- Pritwani, K. *Sustainability of business in the context of environmental management*. CRC Press.
- Wright, R.T. & Boorse, D.F. *Environmental Science: Toward A Sustainable Future*

**Assessment Rubrics:**

Evaluation Type		Marks
End Semester Evaluation		<b>35</b>
Test Paper (Practicum)		<b>15 (P)</b>
Continuous Evaluation		<b>15</b>
Presentation/Case Study		<b>10 (P)</b>
a)	Test Paper- 1	5
b)	Test Paper-2	5
d)	Seminar/Book/ Article Review/ Viva-Voce/Field Report/Assignment	5

<b>Total</b>	<b>75</b>
--------------	-----------