

**Resolution No.: AC// (23-24).3.RUA12**

**S. P. Mandali's**  
**Ramnarain Ruia Autonomous College**  
*(Affiliated to University of Mumbai)*



**Syllabus for**  
**Program: F.Y.B.Sc.**  
**Program Code: (RUSVEC)**

(As per the guidelines of National Education Policy 2020-  
Academic year 2023-24)

(Choice based Credit System)

**Course Code: RUSVEC.O101**  
**Course Title: Value Education Course (VEC)**  
**Environmental Science**

**Academic year 2023-24**

**COURSE OUTCOMES:**

<b>COURSE OUTCOME</b>	<b>DESCRIPTION</b>
<b>CO 1</b>	Assess the importance of the concepts related to ecology and environment
<b>CO 2</b>	Examine different approaches to ecology and the principles associated with it
<b>CO 3</b>	Evaluate the concept of environmental degradation and its impact on human life
<b>CO 4</b>	Recognize the need to actively participate and contribute to environmental protection and sustainable development
<b>CO 5</b>	Comprehend the concept of disasters and how disasters can be managed in India and To lead and create a conducive living atmosphere to self and others.

**DETAILED SYLLABUS**

<b>Course Code/ Unit</b>	<b>Unit</b>	<b>Course/ Unit Title</b>	<b>Credits/ Lectures</b>
<b>RUSVEC.O101</b>	<b>I - II</b>	<b>ENVIRONMENTAL SCIENCE</b>	<b>2/30</b>
	<b>I</b>	<b>Approaches to Understanding Ecology</b>	<b>15</b>
		A. Concept of Ecology and Environment B. Approaches to ecology - Anthropocentrism, Biocentrism and Eco centrism, Ecofeminism and Deep Ecology C. Environmental Principles – Sustainability principle, Polluter Pays principle, The Precautionary principle, The Equity principle	

	II	Dealing with Environmental Concerns	15
		A. Environmental Degradation – Causes and Impact on Human Life B. Sustainable Development – Concept and Components C. Disaster Management - Prevention, Mitigation and Disaster Preparedness	
	<b>Total</b>		<b>30</b>

### References:

1. Bharucha, Erach, *Changing Landscapes: The Cultural Ecology of India*, Harper Collins, New Delhi, 2017.
2. Biju, M.R., *Human Rights in a Developing Society*, Mittal Publications, New Delhi, 2005.
3. Dreze, Jean and Sen, Amartya, *India: Economic Development and Social Opportunity*, Oxford University Press, Oxford, 1998.
4. Goel, S.L., *Encyclopaedia of Disaster Management*, Vol. I, II & III; Deep and Deep Publications Pvt. Ltd., New Delhi, 2006.
5. Guha, Ramchandra and Gadgil, Madhav, (eds.), *Ecology and Equity: The Use and Abuse of Nature in The Contemporary India*, Routledge, 1995.
6. Guha, Ramchandra and Gadgil, Madhav, (eds.), *This Fissured Land: AN Ecological History of India*, University of California Press, California, 1993.
7. Mohapatra, Gaur Krishna Das, *Environmental Ecology*, Vikas, Noida, 2008.
8. Motilal, Shashi, and Nanda, Bijoy Lakshmi, *Human Rights: Gender and Environment*, Allied Publishers, New Delhi, 2007.
9. Murthy, D.B.N., *Disaster Management: Text and Case Studies*, Deep and Deep Publications, New Delhi, 2013.
10. R. Rajagopalan, *Environmental Studies: From Crisis to Cure*, Oxford University Press, 2011.
11. Reza, B. K., *Disaster Management*, Global Publications, New Delhi, 2010.

12. Sengupta Rajit, and Pandey, Kiran, *State of India's Environment 2021: In Figures*, Centre Science and Environment, 2021.
13. Sharma, J. P., *Comprehensive Environmental Studies*, Laxmi Publications Pvt. Ltd., New Delhi, 2005.
14. Sharma, P.D., *Ecology and Environment*, Rastogi Publications, 2015.
15. Shiva, Vandana, *Ecology and the Politics of Survival: Conflict over Natural Resources in India*, Sage Publications, California, 1991.

### **Books in Marathi:**

1. Ghorpade, Abhijeet, *Gatha Paryavaranachi*, Rajhansa Prakashan, Pune, 2010.
2. Joshi, Milind, *Sagar Pradushan*, Aashay Prakasan, Pune, 2005.
3. Joshi, Milind, *Vaayu Pradushan*, Aashay Prakasan, Pune, 2005.
4. Kadam, D.S., *Manav Paryavaran va Pradushan*, Phadke Prakashan, Kolhapur, 2005.
5. Pawar, Kishor, Nalini, *Paryavaranshastra*, Nirali Prakashan, Pune, 2017.
6. Sawant, Prakash, *Parayavaran Abhyas*, Phadke Prakashan, Kolhapur, 2009.
7. Vyavahare, Ramanand, *Shashwat Vikas*, Educational Publishers, Aurangabad.

## MODALITY OF ASSESSMENT

### Theory Examination Pattern:

**A) Internal Assessment - 40% : 20 marks.**

(Class Test)

**B) External Examination - 60 % : 30 marks.**

**1. Semester End Theory Assessment - 30 marks**

i. Duration - This examination shall be of **1 Hour** duration.

### **Paper Pattern:**

Question	Options	Marks	Questions Based on
1	A OR B	15	Unit I
2	A OR B	15	Unit II
	<b>TOTAL</b>	<b>30</b>	

### **Overall Examination and Marks Distribution Pattern**

RUSVEC.O101	Semester I		
	Internal	External	Total
Theory	20	30	50