



# **KAMARAJ COLLEGE**

**(AUTONOMOUS)**

Accredited with A+ Grade by NAAC

Among Top 150 Colleges in India - NIRF Ranking 2025

இந்து நாடார் சங்கங்களால் 1966-ல் தொடங்கப்பட்ட கல்லூரி  
(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)  
THOOTHUKUDI - 628 003.



## **Common Syllabus**

### **Environmental Studies**

#### **Semester - IV**

## **SYLLABUS**

**(for the students those who joined from the academic year 2024-2025)**



**KAMARAJ COLLEGE**

(AUTONOMOUS)

Accredited with A+ Grade by NAAC

Among Top 150 Colleges in India - NIRF Ranking 2025

இந்து நாடார் சங்கங்களால் 1966-ல் தொடங்கப்பட்ட கல்லூரி  
(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)  
THOOTHUKUDI - 628 003.



**Part – IV**

**Common Syllabus**

**Environmental Studies**

**Semester - IV**

**SYLLABUS**

**(for the students those who joined from the academic year 2024-2025)**

## Second Year – Semester – IV

### Environmental Studies

<b>Title of the Course</b>		<b>Environmental Studies</b>			
<b>Course Type</b>		<b>Indian Knowledge System (IKS)</b>			
<b>Course Code</b>		<b>24UEVS41</b>			
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	<b>Credits</b>	<b>2</b>
<b>Instructional Hours Per week</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Lab Practices</b>	<b>Total</b>
		<b>1</b>	<b>1</b>	<b>--</b>	<b>2</b>

#### Unit – I

##### The Multidisciplinary Nature of Environmental Studies:

##### Definition, Scope and importance

##### Natural resources and associated problems:

1. Forest resources: Use and over-exploitation, deforestation, timber extraction, dams and their effects on forests and tribal people.
2. Water resources: Use and over-utilization of surface and ground water, floods, drought, dams-benefits and problems, water conservation and watershed management.
3. Land resources: Land as a resources, Land degradation, man-induced landslides, soil erosion and desertification.

#### Unit – II

##### Ecosystems:

1. Forest Ecosystem
2. Grassland Ecosystem
3. Aquatic Ecosystem (Ponds, Rivers, Oceans, Estuaries)

##### Energy flow in the ecosystem

##### Food Chains, Food Webs and Ecological Pyramids.

## **Unit – III**

### **Biodiversity and its conservation:**

1. Introduction Definition: – Types of Biodiversity - Genetic, species and ecosystem diversity.
2. Values of Biodiversity
3. India as a mega-diversity nation
4. Hot-Spots of biodiversity Threats to biodiversity
5. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

## **Unit – IV**

### **Environmental Pollution:**

Definition – Causes, effects and control measures of:-

- a) Air Pollution
  - b) Water Pollution
  - c) Soil Pollution
  - d) Noise Pollution
- Disaster Management: Floods, cyclone and landslides.

## **Unit – V**

1. Climatic change, global warming, acid rain, ozone depletion.
2. Environment Protection Act
3. Air (Prevention and Control of Pollution) Act
4. Water (Prevention and Control of Pollution) Act
5. Wildlife Protection Act
6. Forest Conservation Act

### **References:**

1. G.S. Vijalakshmi, A.G. Murugesan and N.Sukumaran. 2006. Basics of Environmental Science, Manonmaniam Sundaranar University Publications, Tirunelveli, pp.160.
2. Agarwal. K.C. 2001 Environmental Biology, Nidi Publications Limited, Bikaner.
3. A.K.De.1999. Environmental Chemistry, Wiley Eastern Limited, India.
4. Jadhav,H. and Bhosale, V.M.1995 Environmental Protection and Laws, Himalaya Publishing House, Delhi. pp284.
5. Odum, E.P.1971. Fundamentals of Ecology, W.B. Saunders Co., USA. Pp.574

## Mapping With Programme Outcomes and Programme Specific Outcomes

CO/PO	P01	P02	P03	P04	P05	P06	P07	P08
C01	2	2	2	2	2	3	2	3
C02	2	3	3	2	3	3	2	2
C03	2	3	3	3	3	3	3	3
C04	2	2	3	3	3	2	3	3
C05	2	3	3	3	3	2	2	2

**S-Strong = 3 M-Medium = 2 L-Low =1**

CO/PSO	PS01	PS02	PS03	PS04	PS05
C01	2	2	2	2	2
C02	2	3	3	2	3
C03	2	3	3	3	3
C04	2	2	3	3	3
C05	2	3	3	3	3

## Blue Print – End Semester Examinations Semester – IV

**Class: U.G.**

**Time: 3 Hours**

**Max. Marks: 75**

### Section A

**(10 x 1 = 10)**

**Answer all questions.**

**Choose the correct answer. (With four options)**

	Unit I	Unit II	Unit III	Unit IV	Unit V
Question Nos.	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10

### Section B

**(5 x 5 = 25)**

**Answer all questions choosing either (a) or (b).**

**Answer should not exceed 250 words**

	Unit I	Unit II	Unit III	Unit IV	Unit V
Question Nos.	11 (a) & 11 (b)	12 (a) & 12 (b)	13 (a) & 13 (b)	14 (a) & 14 (b)	15 (a) & 15 (b)

### Section C

**(5 x 8 = 40)**

**Answer all questions choosing either (a) or (b).**

**Answer should not exceed 500 words**

	Unit I	Unit II	Unit III	Unit IV	Unit V
Question Nos.	16 (a) & 16 (b)	17 (a) & 17 (b)	18 (a) & 18 (b)	19 (a) & 19 (b)	20 (a) & 20 (b)