



# ARSD College, University of Delhi

## Model Course Handout / Lesson Plan

| CourseName: (CBCS) B.Sc.(HONS) Chemistry 'B'(Theory) |             |  |             |              |               |            |
|--|-------------|--|-------------|--------------|---------------|------------|
| Semester   | Course Code | Course Title   | Lecture (L) | Tutorial (T) | Practical (P) | Credit (C) |
| I  | 2181001001  | AEC 1 : Environmental Science : Theory into Practice | 1           | 0            | 0             | 1          |
| Teacher/Instructor(s) Session                        |             | Dr.Anita Singh<br>2022-23                            |             |              |               |            |

### Course Objective:

- This compulsory course on Environmental studies at undergraduate level (AEC) aims to train students to cater to the need for ecological citizenship through development of strong foundation on critical linkages between ecology and environment-society-economy
- This will add values in the overall development of the students

### Course Learning Outcomes:

The course will empower the undergraduate students by helping them to:

- Gain in-depth knowledge on natural processes and resources that sustain life and govern economy .
- Understand the consequences of human actions on web life , global economy and quality of human life .
- Develop critical thinking for shaping strategies (scientific, social, economic, administrative , and legal) for environmental protection, conservation of biodiversity, environmental equity, and sustainable development.
- Acquire values and attitudes towards understanding complex environmental-economic-social challenges, and active participation in solving current environmental problems and preventing the future ones.
- Adopt sustainability as a practice in life, society, and industry.

### Lesson Plan:

| Unit No. | Learning Objective                                | Lecture No. | Topics to be covered                                 |
|----------|---|-------------|--|
| 1 & 2    | Introduction to Environmental Studies & Ecosystem | 1           | Multidisciplinary nature, Components of environment. |
|          |   | 2           | Scope and importance and sustainable development.    |
|          |   | 3           | Concept of Ecosystem.                                |
|          |   | 4           | Types of Ecosystem                                   |
|          |   | 5           | Structure of Ecosystem                               |
|          |   | 6,7         | Function of Ecosystem                                |
|          |   | 8.          | Ecosystem services                                   |

|         |   |                      |   |
|---------|---|----------------------|---|
| 3 and 4 | Natural Resources and Environmental Pollution and Control | 9,10,11,<br>12,13,14 | Land Resources, Water Resources, Energy Resources   |
|         |   | 15,16                | Case studies : Contemporary Indian Issues related to mining, dam building etc.  |
|         |   | 17,18,<br>19,20      | Environmental pollution:Primary and Secondary pollutants.Causes,Effects and Control of air,water soil,thermal and noise pollution. Nuclear hazards, Human health risks and Solid waste management |
|         |   | 21,22,<br>23,24      | Pollution control measures:Introduction to legal, biological and physico-chemical methods ; Role in sustainability and Pollution case studies.  |

**EvaluationScheme:**

| No. | Component              | Duration    | Marks |
|-----|------------------------|-------------|-------|
| 1.  | InternalAssessment     |             | 10    |
|     | • ClassTest (4)        |             |       |
|     | • Attendance (2)       |             |       |
|     | • Assignment (4)       |             |       |
| 2.  | EndSemesterExamination | 1hr.45mins. | 50    |







