

DEPARTMENT OF  
ENVIRONMENTAL SCIENCE  
UNIVERSITY OF KASHMIR  
SRINAGAR-190006



**M.Sc. in Environmental Science**

**CHOICE BASED CREDIT BASED COURSE STRUCTURE TO BE  
IMPLEMENTED FROM ACADEMIC SESSION JULY 2017**

**General Course Outline**

**1<sup>ST</sup> SEMESTER**

| Course           | Course Code | Course Name                        | Paper category | Hours/Week |   |   | Credits |
|------------------|-------------|------------------------------------|----------------|------------|---|---|---------|
|                  |             |                                    |                | L          | T | P |         |
| Generic Elective | ENS108GE    | Basics of Ecology and Environment  | GE             | 1          | 1 |   | 2       |
|                  | ENS109GE    | Biogeography                       | GE             | 1          | 1 |   | 2       |
| Open Elective    | ENS110OE    | Environmental Ethics and Sociology | OE             | 1          | 1 |   | 2       |

## Course Descriptions 1<sup>st</sup> Semester

### GENERIC ELECTIVE

#### **ENS108GE: Basics of Ecology and Environment (2 credits)**

##### **Unit I**

- 1.1 Importance of environment
- 1.2 Components of environment-Atmosphere, hydrosphere, lithosphere and biosphere
- 1.3 Human and environment relations
- 1.4 Environment and development
- 1.5 Tools for environmental management

##### **Unit II**

- 1.1 Structure and functions,
- 1.2 Natural and managed ecosystem
- 1.3 Ecosystem goods and services
- 1.4 Ecological Succession
- 1.5 Ecological Interactions

#### **ENS109GE: Biogeography (2 credits)**

##### **Unit 1**

- 1.1. Biodiversity and its importance
- 1.2. Threats to biodiversity
- 1.3. Hotspots of Biodiversity
- 1.4. Major biomes of the world: Distribution and characteristic features
- 1.5. Biogeography: Processes and patterns

##### **Unit II**

- 1.1. Geographical classification and zones
- 1.2. Zoogeographic realms of the world: Palearctic, Nearctic, Neotropical, Oriental, Australian and African
- 1.3. Dispersal: Means, modes and barrier
- 1.4. Migrations
- 1.5. Conservation Biogeography

### OPEN ELECTIVE

#### **ENS110OE: Environmental Ethics and Sociology (2 Credits)**

##### **Unit I**

- 1.1. An introduction to environmental ethics and philosophy
- 1.2. Ethics in society
- 1.3. Responsibility for environmental degradation
- 1.4. Theories of environmental ethics and philosophy
- 1.5. Resource consumption patterns and the need for equitable utilization

##### **Unit II**

- 1.1. Role of agriculture in socio-economic development
- 1.2. Land reforms and Bhoodan movement in India
- 1.3. Community development projects
- 1.4. Rural social structure
- 1.5. Ecological theories of urbanization and urban social problem