

SEMESETR-VI

GEOG. 619:

ENVIRONMENTAL GEOGRAPHY

3(3-0)

Course Objective

To familiarize the students with the environmental themes, human-environment interaction, environmental hazards and handling of the environment.

Learning Outcomes

On the completion of this course, students will be able to learn how geography affects our life, how human population, consumption and technology impact the global environment, cost of geo-hazards, how earth system is defined and function via interaction and why human strive for sustainability?

Course Outline

1. Introduction

- Meaning, concepts and scope
- Evolution of Environmental Studies in Geography
- Comparative Advantage of Geography
- Concept of environmental management

2. Environmental Theme

- People and earth interaction
- Earth system interaction
- Scientific approach of understanding issues related to earth and steps towards achieving sustainable future.

3. Human Environmental Impacts

- Earth's resources consumption
- Generated waste quantity in resource processing

4. Sustainability:

- Critical concept in environmental studies
- Long-term effects on environment

5. People and Earth Interact:

- Human population
- Resource consumption
- Technology and earth's impacts on people

6. Types of systems

- Closed system
- Open system
- Earth interactive systems: Geosphere, hydrosphere, atmosphere, and lithosphere

7. Human Environment Relationship

- Historical progression and adaptation

8. Ecosystem: Concept, structure and function

9. Environmental Problems (hazards)

- Geophysical, Quasi-Natural
- Biological
- Technological
- Water logging and Salinity
- Deforestation and desertification, soil erosion
- Environmental pollution and waste management
- Spatial location: Tropical regions, Temperate and Polar regions

10. Environmental Programs and Policies

- Global, National and local levels.

11. Utilization of Science as a Tool for Life

- Availability of water,
- Transition from oil to other energy resources ,
- Global climate change

12. Achieving Sustainable Future

- Think of depleting resources,
- Search for alternate resources(renewable resources)
- Balance between resources varieties and consumption
- Earth's carrying capacity, maintenance of bio-diversity
- National Conservation Strategy
- National Environmental Quality Standards
- Technology, Awareness, Legislation, Ethics

Lab. Work

To show the distribution different types of natural hazards on the map and temporal frequency on graphs

Field Visits

Field visits of urban and rural areas to identify local environmental problems and documentation of these problems through GIS and SRS data

Recommended Books

1. Botkin, D. B. & Edward A. K. (2012) Environmental Science, John Wiley & Sons. Inc.
2. Weng, Q. (Ed.) (2011) Advances in Environmental Remote Sensing, Taylor and Francis Group.
3. Lead, J. R. & Smith, E. (2009) Environmental and human health impacts of nanotechnology. John Wiley & Sons., New York.
4. Wright, R. T. (2008) Environmental Science, Pearson Prentice Hall, New Delhi
5. Cunningham, W. P. (2007) Environmental Science: A Global Concern, McGraw Hill Higher Education, Boston.
6. Marsh, W. M. & John, G. (2005) Environmental Geography, John Wiley & Sons, Inc.
7. Hoboken Enger, E. D. (2004) Environmental Science, McGraw Hill Higher Education, London
8. Raven., Peter, H. & Linda R. B. (2004) Environment, John Wiley & Sons, Inc., Hoboken.
9. Boca Raton.Arms, K. (1991) Environmental Science, Asunders College Publishing: Philadelphia