Bachelor of Arts (B.A.) in Geography

Semester VI

Paper Code : DSC-M-GEO-364A

Paper Name: PEOPLE AND ENVIRONMENT
Credits: 4

Course Objective

5. Demonstrate knowledge of basic concepts in Environmental Geography
6. Explain relationship between man and environment
7. To understand the causes and consequences of environmental degradation
8. To have a better understanding of emerging environmental issues and India's role in handling such issues

Course Outcome: Students will develop

5. Understanding of components of the environment and their role in the Earth System
6. Awareness on how a healthy man-environment relationship can be maintained
7. Understanding causes of environmental degradation and how to deal with its consequences
8. Better understanding of emerging environmental issues and how the world is gearing up to re-establish the healthy state of the Earth System

Unit-1

Environmental Geography: Nature, Scope and significance of study, Fundamental concepts in Environmental Geography, Distinction among Environment, Ecology and Ecosystem, Components of the Environment- their significance and interdependence

Unit-2

Man-Environment relationship in Geography, Man's interactions with the environment-historical perspective, Human impact on the Natural Environment, Major Biomes of the world - their types and characteristics

Unit-3

Environmental Degradation- causes, types and consequences- Air, Water, Land, Noise and Thermal Pollution, Concepts of Environmental Management and Environmental Impact Assessment in brief, Environmental Vulnerability Index, Environmental Performance Index (EPI), Climate Change Performance Index (CCPI) of Nations

Unit-4

Emerging environmental issues- Population Explosion, Food Security, Deforestation, Climate Change and Global Warming, Threats to Biodiversity and Conservation, Sustainable Development, Environmental Problems and Planning in India, India's role in international arena on environmental issues

Suggested References

13. Singh, Savindra. *Environmental geography*. Allahabad, India: Prayag Pustak Bhawan, 1991.
14. Grimwade, Keith. *Discover physical & environmental geography*. London: Hodder & Stoughton, 1995.
15. Education, Council for Environmental, ed. *Environmental education through geography.* Reading: Council for Environmental Education, 1995.
16. Pan, Subrata. *Environmental geography and sustainable society*. New Delhi: Concept Publishing Company Pvt. Ltd., 2018.
17. Castree Noel, ed. *A companion to environmental geography*. Malden, MA: Wiley-Blackwell, 2009.
18. F, White Gilbert, Kates Robert William, and Burton Ian, eds. *Geography, resources, and environment*. Chicago: University of Chicago Press, 1986.
19. Saxena, H. M. *Environmental Geography*. Rawat Publications, 2004.
20. Marsh, W. M., and John M. Grossa. *Environmental Geography*. 2nd ed. John Wiley and Sons (WIE), 2001.
21. Garcia, Editor: Hector. *Environmental Geography*. Apple Academic Press, Inc., 2010.
22. Marsh. *Environmental Geography*. Wiley & Sons, Incorporated, John, 2004.
23. Chandna, R. C. *Environmental Geography*. Kalyani Publishers, 2003.
24. Duram, Leslie A. *Environmental Geography: People and the Environment,* ABC-CLIO, 2018

Bachelor of Arts (B.A.) in Geography
Semester VI
Paper Code: DSC-M-GEO-364 B
Basics of Cartography
Credits: 4

Course Objective:

This course aims to introduce students to the principles of cartography, the science and art of map-making, and its relevance in geographical studies. The focus is on understanding map types, the methods of depicting relief features, the role of cartograms, and the modern technological tools like Remote Sensing and GIS used in contemporary geography.

Learning Outcomes:

By the end of the course, students will be able to:

- Understand the significance of maps in geography and their various types and elements.
- Apply various methods of showing relief on maps and interpret terrain features accurately.
- Classify different types of cartograms and recognize their uses and limitations in thematic mapping.
- Understand the principles of Remote Sensing and GIS and how they are applied in geographical research and practical applications.
- Demonstrate proficiency in using modern tools and technologies for spatial data analysis and mapping.

Unit 1: Maps

- **Introduction to Maps**: Definition, Importance, and Role in Geography
- **Types of Maps**: Political, Physical, Thematic, Topographic, Cadastral
- **Elements of a Map**: Scale, Projection, Symbols, Colors, Legend, Title, Direction
- **Map Scale**: Concept and types (Verbal, Linear, and Representative Fraction)
- **Map Projections**: Basic concept of projections and types (Cylindrical, Conic, Azimuthal)
- **Map Distortions and their Impact**: Why distortions occur and how they affect map accuracy

Unit 2: Methods of Showing Relief

- **Relief in Cartography**: Definition, Importance, and Representation of Relief
- **Methods of Showing Relief**:
    - **Contour Lines**: Definition, Use, and Interpretation

    - **Hachures**: Concept, Use in early maps
    - **Layer Tinting**: Representation of elevation using colors
    - **Shaded Relief**: 3D representation using light and shadow effects
    - **Digital Elevation Models (DEMs)**: Overview and application in modern mapping
- **Practical Aspects**: How to read and interpret relief features from various types of maps

Unit 3: Cartograms (Classification)

- **Introduction to Cartograms**: Definition and Significance
- **Types of Cartograms**:
    - **Value-by-Area Cartogram**: Mapping statistical data by modifying the size of geographic units
    - **Flow Cartogram**: Representation of movement, e.g., migration, trade, transportation
    - **Non-contiguous Cartogram**: Disjointed areas to represent data without geographical continuity
    - **Contiguous Cartogram**: Data-driven map where areas are resized but retain geographical boundaries
- **Applications of Cartograms**: Usage in thematic geography, population density, economic activities, etc.
- **Limitations and Criticisms of Cartograms**: Understanding distortion and readability

Unit 4: Modern Techniques of Geography: Remote Sensing and GIS

- **Introduction to Remote Sensing and GIS**
- **Their significance in Geography and other Earth Sciences**