

Department of Geography

Course Type: MAJ-2

Semester: 2

Course Code: BGEOMAJ02C

Course Title: **Introduction to Human Geography & Map Projection and Topographical Sheet**

Practical/Theory: **Combined**

Course Objectives:

- 1. To introduce students to the nature and scope of human geography.*
- 2. To explore the historical development of human geography as a discipline.*
- 3. To analyse the interactions between humans and their environment from a geographical perspective.*
- 4. To examine the principles of population geography and demography.*
- 5. To analyse the types and patterns of rural and urban settlements.*
- 6. To understand the challenges of poverty, food security, and natural hazards in relation to human development.*

Course Outcomes:

- 1. Students will be able to define the scope of human geography and its relevance in understanding human-environment interactions.*
- 2. Students will gain an understanding of the key concepts and theories that have shaped the development of human geography.*
- 3. Students will be able to critically evaluate the impact of human activities on the environment in different geographical contexts.*
- 4. Students will be able to explain the factors influencing population growth and composition in different regions.*
- 5. Students will be able to identify and analyze the characteristics of rural and urban settlements based on their morphology.*
- 6. Students will develop an understanding of the indicators of social well-being and the importance of sustainable development goals in addressing global challenges.*

Course Title: Introduction to Human Geography

Paper Type: Theoretical Course Credit: 4

Unit I: Fundamentals of Human Geography [26 Hours]

- 1.1** Nature, scope and development of human geography.
- 1.2** Evolution of Man-Nature interaction: Hunting and Food gathering, Pastoral nomadism, Agrarian society and industrial society. Man-environment relationship in Equatorial, Monsoon, Tundra and Hot desert regions.
- 1.3** Race and ethnic groups: Concept, origin and distribution.
- 1.4** Language, religion and culture: Origin, diffusion and distribution

Unit II: Population, Settlement and Development [26 Hours]

- 2.1** Population geography and demography. Population growth and composition.
- 2.2** Types and patterns of rural and urban settlement. Morphology of Urban settlement.
- 2.3** Poverty and Food Security. Natural hazards and Environmental refugee.
- 2.4** Indicators of social well-being; Human Development, Sustainable Development Goals.

Course Title: Map Projection and Topographical Sheet

Paper Type: Practical Course Credit: 2

Course Objectives:

- 1.To introduce students to the concept of map projections and their significance in cartography.*
- 2.To familiarize students with different types of map projections and their properties.*
- 3.To provide hands-on experience in working with geographic coordinate systems and grids.*
- 4. To teach students about the numbering systems used in topographical maps and their significance.*
- 5. To enable students to extract and interpret geomorphic information from topographical maps.*
- 6. To provide practical training in delineating drainage basins and analysing relief profiles on maps.*

Course Outcomes:

- 1. Students will be able to explain the concept of map projections and their role in representing the Earth's surface on a flat map.*
- 2. Students will be able to identify and differentiate between various types of map projections based on their characteristics and uses.*
- 3.Students will develop practical skills in working with geographic coordinate systems, grids, and understanding the significance of different projection methods.*
- 4. Students will be able to interpret and utilize numbering systems in topographical maps for navigation and analysis.*
- 5. Students will be able to extract geomorphic information from topographical maps and construct relief profiles.*
- 6. Students will develop skills in delineating drainage basins, creating slope maps, and analysing stream ordering and bifurcation ratios on a drainage basin.*

Unit I: Map Projection [26 Hours]

- 1.1** Concept of Geoid and Spheroid; Datum with special reference to Everest and WGS-84
Coordinate systems: geographic, projected and local.
- 1.2** Concept of generating globe; Grids: Angular and linear systems of measurement.
Bearing: Magnetic and true, whole-circle and reduced, Map projections: Classification, properties and uses.
- 1.3** Concept and significance of UTM projection
- 1.4** Polar Zenithal Gnomonic and Stereographic, Simple conic with one standard parallel, Bonne's, Cylindrical Equal Area, and Mercator's

Unit II: Interpretation of Topographical Map [26 Hours]

- 2.1** Numbering systems in Topographical map (Metric and OSM).
- 2.2** Extraction and interpretation of geomorphic information: Construction of relief profiles (superimposed, projected and composite), and identification of micro landform features
- 2.3** Delineation of drainage basins: Relative relief map, slope map (Wentworth's method), drainage density map, stream ordering (Strahler) and bifurcation ratio on a drainage basin.
- 2.4** Transect chart.

Project File

- a) Construction of projections: Polar Zenithal Gnomonic and Stereographic, Simple conic with One Standard parallel, Bonne's, Cylindrical Equal Area, and Mercator's.
- b) Develop Broad Physiographic Divisions, Construction of Relief profiles (superimposed, projected and composite).
- c) Preparation of relative relief map, slope map, drainage density map, and stream ordering on a drainage basin.
- d) Correlate Physical aspects with Cultural landscape using Schematic Map, Transect chart.