



# Mankar College

## Department of Geography

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### Honours Course

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical properties of Earth's surface and the human societies spread across it. They also examine how human culture interacts with the natural environment and the way those locations and places can have an impact on people. Geography seeks to understand where things are found, why they are there, and how they develop and change over time. The study of the diverse environments, places, and spaces of Earth's surface and their interactions. It seeks to answer the questions of why things are as they are where they are. The modern academic discipline of geography is rooted in ancient practice, concerned with the characteristics of places, in particular their natural environments and peoples, as well as the relations between the two. So, after the completion of graduation, the students will be able to:

#### **Programme Outcomes:**

**PO 1-** To understand the scope and evolution of the diverse discipline of Geography.

**PO 2-** Recognize, synthesize and evaluate diverse sources of knowledge, arguments and approaches pertinent to exploring human-environment problems. Explain societal relevance of geographical knowledge and apply it to real world human- environment issues.

**PO 3-** Appreciate and reflect critically on the importance of holistic and interpretative human-environment perspectives.

**PO 4-** An understanding and acknowledgment of the threats that endanger the earth's natural systems. This helps in further realization of the significance of anthropogenic causes of many of the disasters and threats that puts life on this planet on the edge.

**PO 5-** Development of knowledge, skills and holistic understanding of the discipline among students. Encouragement of scientific mode of thinking and scientific method of enquiry in students. This goal is achieved through the regular field excursions conducted by the Department to various parts of India extensively and the writing of a report on it.

**PO 6-** Students become equipped with the ability to respond to both natural and man-made disasters and acquire management skills. This is attained through the curriculum by studying and analyzing hazards, disasters, their impact and management.

**PO7-** Ability to undertake research in interdisciplinary studies and problems or issues beyond the realm of what strictly comes under the purview of geography.

**Programme Specific Outcomes:**

**PSO 1-** Student will gain the knowledge of physical geography. Student will have a general understanding about the geomorphological and geotechnical process and formation. They will be able to correlate the knowledge of physical geography with the human geography.

**PSO2-** Associating landforms with structure and process; establishing man-environment relationships; and exploring the place and role of Geography among other social and earth sciences.

**PSE3-** Developing a sustainable approach towards the ecosystem and the biosphere with a view to conserve natural systems and maintain ecological balance.

**PSE4-** Student will be able to analyze the problems of physical as well as cultural environments of both rural and urban areas. Moreover they will try to find out the possible measures to solve those problems.

**PSE5-** Inculcating a tolerant mindset and attitude towards the vast socio-cultural diversity of India by studying and discussing contemporary concepts of social and cultural geography. Explaining and analyzing the regional diversity of India through interpretation of natural and planning regions.

**PSE 6-** Analyzing the differential patterns of the human habitation of the Earth, through studies of human settlements and population dynamics. Understanding and accounting for regional disparities, poverty, unemployment and the impacts of globalization

**PSE7-** Understanding the history of the subject; over viewing ancient and contemporary geographical thought and its relationship with modern concepts of determinism, possibilism, systematic and regional approaches in geography.

**PSE8-** Sensitization and awareness about the hazards and disasters to which the subcontinent is vulnerable; and their management.

**PSE9-** As a student of the Course they will enrich their observation power through field experience and in future this will be helpful for identifying the socio- environmental problems of their community.

**PSE 10-** Training in practical techniques of mapping, cartography, software, interpretation of maps, photographs and images etc.; so as to understand the spatial variation of phenomena on the Earth's surface. They will learn how to prepare map based on GIS by using the modern geographical map making techniques.

### **Course Outcomes:**

#### **Semester-I**

##### **CC1- Geotectonics and Geomorphology**

**CO 1-** Understand earth's tectonic and structural evolution through geological time scale.

**CO 2-** Gain knowledge about earth's interior with the help of seismology.

**CO 3-** Acquire knowledge about the concept of isostasy.

**CO 4-** Develop an idea about concept of plate tectonics, and resultant landforms.

**CO 5-** Explain different types of geomorphic processes like weathering and mass wasting.

**CO 6-** Overview and critical appraisal of models of landscape evolution and slope development.

**CO 7-** Understand the relationship between geological structure and river network and landforms.

**CO 8-** Gain knowledge about different rocks.

**CO 9-** Acquire knowledge about different geomorphological processes and resultant landforms.

##### **CC2 (Theory)-Cartographic Techniques and Geological map study**

**CO 1-** Develop an idea of different types of maps.

**CO 2-** Acquire knowledge about different scales.

**CO 3-** Understand the different principles of map projection.

**CO 4-** Gain knowledge about the Survey of India Topographical Maps

**CO 5-** Identification of rocks and minerals.

**CC 6-** Understand the different concepts of Geological Map.

### **CC2 (Practical)-Cartographic Techniques and Geological map study**

**CO 1-** Learn to construct different types of scale like linear, diagonal and vernier.

**CO 2-** Drawing of maps with the help of map projection.

**CO 3-** Interpreting, reading, analyzing and identifying features from geological and topographical maps.

## **Semester-II**

### **CC3- Human Geography**

**CO 1-** Gain knowledge about major themes of human geography.

**CO 2-** Acquire knowledge on the evolution of humans, race and ethnicity.

**CO 3-** Develop an idea about space, society and cultural regions.

**CO 4-** Explore different aspects of culture.

**CO 5-** Understand the approaches and processes of human geography as well as the diverse patterns of habitat and adaptations.

**CO 6-** Gain knowledge about different aspects of population study.

**CO 7-** Analyze the morphology of rural settlements.

**CO 8-** Gain knowledge about functional classification of urban settlements.

### **CC4 (Theory)-Cartograms, Survey and Thematic Mapping**

**CO1-** Develop an idea about cartograms and different types of thematic mapping techniques.

**CO2-** Gain knowledge about basic concepts of surveying and survey equipments like Abneys Level, Clinometer, Prismatic Compass, Dumpy Level, Transit theodolite.

**CO3-** Interpretation of land use and land cover maps.

### **CC4 (Practical)-Cartograms, Survey and Thematic Mapping**

**CO1-** Learn about diagrammatic representation of data like Age-sex pyramid, Pie-diagram, dots and spheres, isopleth and choropleth.

**CO2-** Brings direct interaction of different types of surveying instruments like Prismatic Compass, Dumpy level and Theodolite with environment.

### **Semester-III**

#### **CC5- Climatology**

**CO1-** Understanding the nature, composition and layering of the atmosphere.

**CO2-** Develop an idea about insolation and heat budget of the atmosphere.

**CO3-** Gain knowledge about different atmospheric phenomena like temperature distribution, greenhouse effect, condensation, air mass, fronts, stability and instability, wind circulation and climate change.

**CO4-** Acquire knowledge about cyclones.

**CO5-** Approaches to climatic classification.

#### **CC6 (Theory)-Statistical Methods in Geography**

**CO1-** Learn the significance of statistics in geography.

**CO2-** Understand the importance of use of data in geography.

**CO3-** Gain knowledge about different scales of measurement.

**CO4-** Know about different types of sampling.

**CO5-** Develop an idea about theoretical distribution.

**CO6-** Acquire knowledge about central tendency, dispersion, correlation, linear regression and time series analysis.

#### **CC6 (Practical)-Statistical Methods in Geography**

**CO1-** Ability to construct data matrix.

**CO2-** Using statistical techniques in order to summarize, represent, analyze and interpret the data matrix.

### **CC7- Geography of India**

- CO1- Understanding of geology, physiography, climate, soil and vegetation of India.
- CO2- Gain knowledge about demographic and social distribution of population of India.
- CO3- Develop an idea about the economic resources of India.
- CO 4- Learn about the regionalization of India.
- CO5- Acquire knowledge about the various perspectives of geography of West Bengal.

### **SEC1- Computer Basics and Computer Applications**

- CO1- Understanding of Numbering Systems.
- CO2- Acquiring practical skills of application of different statistical techniques and preparation of annotated diagrams with the help of computer.
- CO3- Develop an idea about internet surfing.

### **Semester-IV**

### **CC8- Regional Planning and Development**

- CO1- Understand and identify regions as an integral part of geographical study.
- CO2- Gain knowledge about types of planning, principles and techniques of regional planning and multilevel planning.
- CO3- Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development.
- CO4- Build an idea about the models and strategies for regional development.
- CO5- Know about measuring development indicators.
- CO6- Understanding of NITI Aayog and its functions.

### **CC9- Economic Geography**

- CO1- Gain knowledge about basic concepts and approaches to economic geography.
- CO2- Understand the factors influencing location of economic activity and transport cost.
- CO3- Acquire knowledge about various types of economic activities.

**CO4-** Learn about the different types of primary, secondary and tertiary activities.

**CO5-** Build an idea about the agricultural and industrial location theories.

**CO6-** Assess the role of highways and international trade blocks in economic development.

### **CC10 (Theory)-Environmental Geography**

**CO1-** Learn about geographers' approach to environmental studies.

**CC2-** Develop an idea about human-environment relationships.

**CC3-** Build an idea about structure and functions of ecosystem.

**CO4-** Assess the significance of environmental degradation and pollution.

**CO5-** Understanding of environmental issues related to agriculture, waste management and bio-diversity.

**CO6-** Know about environmental programmes and policies.

### **CC10 (Practical)-Environmental Geography**

**CO1-** Develop skills regarding preparation of questionnaire for perception survey on environmental problems.

**CO2-** Assess environmental impact through Leopold Matrix.

**CO3-** Acquire practical knowledge regarding quality assessment of soil using field kit.

**CO4-** Understanding of interpretation of air quality using central and state pollution control board data.

### **SE2 (Practical)-Advanced Spatial Statistical Techniques**

**CO1-** Gain knowledge about concept of probability and its geographical application.

**CO2-** Acquire practical knowledge about different statistical techniques like correlation, regression analysis, time series, t-test and nearest neighbor analysis.

## **Semester-V**

### **CC11 (Theory)-Research Methodology and Field Work**

**CO1-** Learn the significance of research in geography.

**CO2-** Have expertise in the identification of the area of study, defining research problem, objectives and hypothesis, methodology, quantitative and qualitative analysis and conclusions to be drawn about the area- fundamental to geographical research.

**CO3-** Understand different types of field techniques and tools.

### **CC11 (Practical)-Research Methodology and Field Work**

**CO1-** Conducting field excursion and preparation of field report based on primary and secondary data.

### **CC12 (Theory)-Remote Sensing and GIS**

**CO1-** Know about concepts, components, development, platforms and types of remote sensing and GIS.

**CO2-** Understand about Aerial photography and Satellite Remote Sensing.

**CO3-** Know about GIS data structures.

**CO4-** Develop an idea about interpretation and application of remote sensing and GIS.

**CO5-** Acquire knowledge about principles of GNSS Positioning.

### **CC12 (Practical)-Remote Sensing and GIS**

**CO1-** Training in the use of GIS software for contemporary mapping skills.

**CO2-** Develop practical skills regarding georeferencing, image processing, classification, digitization and preparation of thematic maps.

### **DSE1-Cultural and Settlement Geography**

**CO1-** Understand the scope, content and development of cultural geography.

**CO2-** Gain knowledge about the concept of cultural hearth and realm, cultural landscape, cultural innovation and diffusion, cultural segregation, cultural diversity and acculturation.

**CO3-** Learn about the various racial groups of the world.

**CO4-** Understand the scope and content of settlement geography.

**CO5-** Acquire knowledge about rural settlements-definition and characteristics, role of site and situation.

**CO 6-** Learn the census definition and categories of urban settlement.

**CO7-** Analyze the classical models of urban morphology.

**CO8-** Develop knowledge about functional classification of cities.

### **DSE2- Population Geography**

**CO1-** Understand the development of population geography and the relationship between population geography and demography.

**CO2-** Analyze the determinants of population dynamics.

**CO3-** Evaluate the theories of population growth and demographic transition model.

**CO4-** Trace the trend and pattern of population growth of India since independence.

**CO5-** Understand the population composition of India.

**CO6-** Learn about the causes and types of migration and analyze its theories.

**CO7-** Know about measuring human development indicators.

**CO8-** Explore the population policies of Sweden and China.

**CO9-** Studying health and unemployment as contemporary issue in population geography.

## **Semester-VI**

### **CC13- Evolution of Geographical Thought**

**CO1-** Understand the scope and content of geography and analyze geography as a spatial science.

**CO2-** Explore the evolution of geographical thought from ancient to modern times.

**CO3-** Appreciate the contribution of the thinkers in geography.

**CO4-** Know about different schools of geographical thought.

**CO5-** Analyzing modern and contemporary principles of determinism, possibilism, neo-determinism, systematic and regional approaches in geography.

### **CC14 (Theory)-Disaster Management**

**CO1-** Understand the nature and classification of hazards and disasters.

**CO2-** Assess risk, perception and vulnerability with respect to hazards.

**CO3-** Develop an idea about preparedness, trauma, resilience and capacity building as response to hazards.

**CO4-** Learn about the data and techniques of hazard mapping.

**CO5-** Acquire knowledge about factors, vulnerability, consequences and management of earthquake, landslide, cyclone and fire.

#### **CC14 (Practical)-Disaster Management**

**CO1-** Preparation of an individual project report based on any one field based case study on earthquake, landslide, cyclone, flood, drought, river bank erosion, mining area subsidence or tsunami.

#### **DSE3- Resource Geography**

**CO1-** Understand the importance of resource geography and its relation with other sub disciplines.

**CO2-** Develop knowledge about concept and classification of resources.

**CO3-** Evaluate the functional theory of resource.

**CO4-** Analyze the problems of resource depletion and acquire knowledge about resource conservation.

**CO5-** Understand the concept of 'Limits to Growth'.

**CO6-** Gain knowledge about the distribution, utilization, problems and management of mineral and energy resources in Indian context.

**CO7-** Analyze the contemporary energy crisis and assess the future scenario.

**CO8-** Critical appraisal of sustainable resource development.

#### **DSE4- Soil and Bio Geography**

**CO1-** Learn definition and factors of soil formation.

**CO2-** Gain knowledge about physical and chemical properties of soil.

**CO3-** Explore types of soil, principles of soil classification, soil degradation and management.

**CO4-** Assess the scope of bio geography.

**CO5-** Introducing ecosystem and biosphere concepts.

**CO6-** Analyzing the role and importance of bio-geo chemical cycles.

**CO7-** Understand the factors of plant growth.

**CO8-** Develop idea about biomes and comprehend the causes and consequences of biodiversity loss.