

COURSE & PROGRAM OUTCOMES OF GEOGRAPHY HONOURS (UNDER CBCS)

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.

Choice Based Credit System (CBCS): Syllabus in Geography

INTRODUCTION

In compliance with recent directives from the University Grants Commission, the undergraduate syllabus for Geography is reframed into Choice Based Credit System largely following the model syllabus prepared by the West Bengal State Council of Higher Education.

The main objective of this new curriculum is to give the students a holistic understanding of the subject, putting equal weightage to the core content and techniques used in Geography. The syllabus tries to give equal importance to the two main branches of Geography: Physical and Human. The principal goal of the syllabus is to enable the students to secure a job at the end of the undergraduate programme. Keeping this in mind and in tune with the changing nature of Geography, adequate emphasis is rendered on applied aspects of the subject such as emerging techniques of mapping and field-based data generation, especially in the honours course. The syllabus emphasises on development of basic skills of the subject, so that everyone need not go for higher studies in search of professional engagement or employment.

LEARNING OUTCOMES

This syllabus is designed to impart basic knowledge on geography as a spatial science and train the undergraduates to secure employment in the sectors of geospatial analysis, development and planning, mapping and surveying.

Geography as a discipline mainly concerns all spheres of the planet Earth and discuss dynamic nature of spatial attributes. The Honours core course in geography at UG level focuses on spatial studies – both qualitative and quantitative, and emphasises on man-environment relationship. The students acquire the knowledge on natural and physical systems such as geomorphologic processes and natural hazards.

The students are exposed to historical, economic, cultural, social and physical characteristics of regions, in terms of both their uniqueness and similarities. They will thus gain a perspective about social and cultural diversity of the world. Different methodologies like

cartographic techniques, tailored to meet the students' specific educational and professional goals in mind.

1. The students will be exposed to cartographic information and will develop map reading skills, ranging from the simple reckoning of locations to the understanding of the spatial structure and process that maps represent.
2. Students will become familiar with standard quantitative and qualitative methods, enabling them to accurately understand the meaning of information and how this information can be used to understand economic and social issues.
3. In addition to the ability of understanding and reading maps, students will develop cartography skills and will be able to create maps on their own.
4. Students will learn how to use Geographic Information Systems (GIS), particularly for the purpose of qualitative and quantitative information analysis as well as for cartography. GIS will be the main tool in which students will apply the geographical methodology.

Learning Outcomes: After the completion of the course, students will be able to -

1. Identify and explain the Indian Geographical Environment, from global to local scales.
2. Apply geographical knowledge to everyday living.
3. Apply knowledge of global issues to a unique scientific problem.
4. Show an awareness and responsibility for the environment and India.
5. Evaluate the impacts of human activities on natural environments with special reference to India.

COURSE OUTCOMES

[Honours]

The course outcomes of the different papers offered are presented below. After completion of the course the student will be able to:

Course Code	Course Title	Credits	Course Outcomes
GEO/H/CC/T/01	Geotectonics and Geomorphology	6	Understand the theories and fundamental concepts of Geotectonic and Geomorphology. Understand earth's tectonic and structural evolution. Gain knowledge about earth's interior. Develop an idea about concept of plate tectonics, and resultant landforms. <ul style="list-style-type: none"> • Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms.

			<ul style="list-style-type: none"> • Understanding crustal mobility and tectonics; with special emphasis on their role in landform development. • Overview and critical appraisal of landform development models. • Ability to record temperature, pressure, humidity and rainfall • Develop the skills of identification of features and correlation between them. • Do field surveys using appropriate techniques. • Identification of rocks and minerals.
GEO/H/CC/T/02 & GEO/H/CC/P/02	Cartographic Techniques	4+2=6	<ul style="list-style-type: none"> • Understand and prepare different kinds of maps. • Recognize basic themes of map making. • Development of observation skills.
GEO/H/CC/T/03	Human Geography	6	<ul style="list-style-type: none"> • Gain knowledge about major themes of human geography. • Acquire knowledge on the history and evolution of humans. • Understand the approaches and processes of Human Geography as well as the diverse patterns of habitat and adaptations. • Develop an idea about space and society
GEO/H/CC/T/04 & GEO/H/CC/P/04	Cartograms, Survey and Thematic Mapping	4+2=6	<ul style="list-style-type: none"> • Comprehend the concept of scales and representation of data through cartograms. • Interpret geological and weather maps. • Learn the usages of survey instruments. • Brings direct interaction of different types of surveying instruments like Dumpy level and Theodolite with environment. • Develop an idea about different types of thematic mapping techniques.
GEO/H/CC/T/05	Climatology	6	<ul style="list-style-type: none"> • Understand the elements of weather and climate, different atmospheric phenomena and climate change. • Learn to associate climate with other environmental and human issues. Approaches to climate classification.

			<ul style="list-style-type: none"> • To analyse the dynamics of the Earth's atmosphere and global climate. Assessing the role of man in global climate change. • Prepare various climatic maps and charts and interpret them. • Learn to use of various meteorological instruments. • Learn the interaction between the atmosphere and the earth's surface. Understand the importance of the atmospheric pressure and winds. • Understand how atmospheric moisture works.
GEO/H/CC/T/06 & GEO/H/CC/P/06	Statistical Methods in Geography	4+2=6	<ul style="list-style-type: none"> • Interpret statistical data for a holistic understanding of geographical phenomena. Know about different types of sampling. • Develop an idea about theoretical distribution. • Learn to use tabulation of data. Gain knowledge about association and correlation.
GEO/H/CC/T/07	Geography of India	6	<ul style="list-style-type: none"> • Understand and identify regions as an integral part of geographical study. • Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development. • Analyzing the concept of regions and regionalization. • Studying typical physiographic, planning, arid and biotic regions of India. Understanding the detailed geography of India.
GEO/H/SEC/P/01/A	Computer Basic and Computer Applications	2	<ul style="list-style-type: none"> • e Learn the significance of statistics in geography. Understand the importance of use of data in geography • Recognize the importance and application of Statistics in Geography
GEO/H/CC/T/08	Regional Planning and Development	6	<ul style="list-style-type: none"> • Gain knowledge about definition of region, evolution and types of regional planning. Develop an idea about choice of a region for planning. • Build an idea about theories and models for regional planning. Know about measuring development indicators. • They can know about delineation of

			formal regions by weighted index method and also delineation of functional regions by breaking point analysis.
GEO/H/CC/T/09	Economic Geography	6	<ul style="list-style-type: none"> • Understand the concept of economic activity, factors affecting location of economic activity. Gain knowledge about different types of Economic activities • Assess the significance of Economic Geography, the concept of economic man and theories of choice. • Analyse the factors of location of agriculture and industries. • Understand the evolution of varied types of economic activities. • Map and interpret data on production, economic indices, transport network and flows.
GEO/H/CC/T/10 & GEO/H/CC/P/10	Environmental Geography	4+2=6	<ul style="list-style-type: none"> • Understand the varied ecosystems and classify them. • Recognize the significance of biogeochemical cycles and biodiversity. • Comprehend the devastating impact of deforestation. • Identify soil types and derive their pH.
GEO/H/SEC/P/02/B	Field Work	2	<ul style="list-style-type: none"> • Handle logistics and other emergencies on field. • Learn to analyse census data to measure different parameter
GEO/H/CC/T/11 & GEO/H/CC/P/11	Research Methodology and Field Work	4+2=6	<ul style="list-style-type: none"> • Have expertise in identification of area of study, methodology, quantitative and quantitative analysis, and conclusions to be drawn about the area – fundamental to geographical research. • Handle logistics and other emergencies on field. • Develop skills in photography, mapping and video recording.
GEO/H/CC/T/12 & GEO/H/CC/P/12	Remote Sensing and GIS	4+2=6	<ul style="list-style-type: none"> • Interpret satellite imagery and understand the preparation of false color composites from them. • Training in the use Geographic Information System (GIS) software for contemporary mapping skills. • Analysing and interpreting remotely sensed satellite images and aerial

			<p>photographs in order to understand topographical and cultural variations on the Earth's surface.</p> <ul style="list-style-type: none"> • Conducting field excursions and preparation of field report on research on problem in different areas of India • Apply GIS to the preparation of thematic maps.
GEO/H/DSE/T/01/B	Cultural and Settlement Geography	6	<ul style="list-style-type: none"> • Trace the development of cultural geography in relation to allied disciplines • Understand the concept of cultural hearth and realm, cultural diffusion, diffusion of religion • Develop an understanding of cultural segregation and cultural diversity, technology and development • Learn about the various races and racial groups of the world • Identify the cultural regions of India • Acquire knowledge about Rural settlements- Definition, nature and characteristics • Analyze the morphology of rural settlements • Learn the rural house types, census categories of rural settlements and idea of social segregation • Learn the census definition and categories of urban settlements • Analyze the urban morphology models of Burgess, Hoyt, Harris and Ullman • Differentiate between city-region and conurbation • Analyze the functional classification of cities • Develop the skill of mapping language distribution of India • Learn to plot proportional squares to illustrate housing distribution • Acquire the skill of identifying rural settlement types from topographical sheet • Understand Social Area Analysis of a city based on Shevky and Bell
GEO/H/DSE/T/02/A	Population Geography	6	<ul style="list-style-type: none"> • Understand the nature, scope, approaches and recent trends in Population Geography • Trace the origin of societies over time

			and analyze the factors, stages and characteristics of population growth <ul style="list-style-type: none"> Analyze the theories of demography and growth of population.
GEO/H/CC/T/13	Evolution of Geographical Thoughts	6	<ul style="list-style-type: none"> Perceive the evolution of the philosophy of Geography. Appreciate the contribution of the thinkers in Geography. Give power point presentations on different schools of geographical thought. Discussing the evolution of geographical thought from ancient to modern times. Establishing relationship of Geography with other disciplines and man-environment relationships. Analyzing modern and contemporary principles of Empiricism, Positivism, Structuralism, Human and Behavioral Approaches in Geography
GEO/H/CC/T/14 & GEO/H/CC/P/14	Disaster Management	4+2=6	<ul style="list-style-type: none"> Understand the nature of hazards and disasters. Assess risk, perception and vulnerability with respect to hazards. Prepare hazard zonation maps. Assessing the nature, impact and management of major natural and man-made hazards affecting the Indian subcontinent.
GEO/H/DSE/T/03/B	Resource Geography	6	<ul style="list-style-type: none"> Understand the concept and classification of resources Understand the approaches to resource utilization Appreciate the significance of resources Assess the pressure on resources Analyze the problems of resource3 depletion with special reference to forests, water and fossil fuels Understand the concept of Sustainable Resource development Understand the distribution, utilization, problems and management of metallic and non-metallic mineral resources Analyze the contemporary energy crisis and assess the future scenario Understand the concept of Limits to Growth, resource sharing and

			<p>sustainable use of resources</p> <ul style="list-style-type: none"> • Develop the skill of mapping forest cover from satellite images • Develop the skill of mapping water bodies from satellite images • Analyze the decadal changes in state-wise production of coal and iron ore • Learn to compute HDI
GEO/H/DSE/T/04/A	Soil and Bio Geography	6	<ul style="list-style-type: none"> • Have knowledge about the character and profile of different soil types. • Understand the impact of man as an active agent of soil transformation, erosion and degradation. • Recognize land capability and classify it. • Explaining the Pedological and Edaphological Approaches to Soil Studies - Processes of soil formation, types of soil, and principles of soil and land classification; and management. • Understand the varied ecosystems and classify them. • Recognize the significance of biogeochemical cycles and biodiversity. • Comprehend the devastating impact of deforestation. • Identify soil types and derive their pH.

PROGRAM OUTCOMES

- To understand the scope and evolution of the diverse discipline of Geography.
- 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.
- Appreciate and reflect critically on the importance of holistic and interpretative human-environment perspectives.
- 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.
- 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/thesis on it.

- 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 analysing hazards, disasters, their impact and management.
- Ability to undertake research in interdisciplinary studies and problems or issues beyond the realm of what strictly comes under the purview of geography. This is possible because of the varied nature of the curriculum that encompasses the study and analyses of concepts of sub-disciplines and allied disciplines of Geology, Seismology, Pedology, Hydrology, Environmental Studies, Disaster Management, Resource Management and Conservation, Regional Planning and Development Studies etc.