

**Programme Outcomes, Programme Specific Outcomes and Course Outcomes for UG Programmes**

**Programme Name: Three Years B.Sc. (HONOURS) in Geography  
under  
Choice Based Credit System (CBCS)**



Department of Geography

K.D. College of Commerce and General Studies

Midnapore-721101

## **PROGRAMME NAME: Three Years B.Sc. (HONOURS) in Geography**

### **PROGRAMME OUTCOMES**

- Instill confidence and develop a sense of identity in facing the real world.
- Foster cooperation among students enabling them to connect and contribute towards teamwork activities.
- Develop effective communications skills that promote leadership qualities individually as well as within a group.
- Develop critical thinking and skills that train students to analyze problems and validate real life solutions.
- Prepare objective based scientific approach so that students can address research problems in Applied Geography and allied fields.
- Strive towards making enlightened citizens with commitment and empathy to social concerns.
- Inculcate a sense of environmental ethics that focus research and concerns on sustainability.
- Inculcate strong moral and ethical values and a sense of discipline among the students.
- Ensure that the lessons are self-directed and lead to lifelong learning.

### **PROGRAMME SPECIFIC OUTCOMES**

- Establish the position of Geography as a subject and its importance and interrelationships that restate and validate the Man Environment relationship.
- In the course of field surveys, students acquire a greater understanding of the socio-economic and cultural dimensions of the populations with greater focus on marginalized section of society.
- Physical field surveys enable the students to understand the landforms, geomorphic process and associated hazards.
- Provide training to students in handling surveying and modern instruments and methods like Dumpy Level, Auto Level, Prismatic Compass, GPS, Satellite Imagery and Meteorological instruments.
- Computer-based techniques (RS & GIS) are incorporated in the syllabus which prepares the students for further analytical studies.
- The students are directed towards problem analysis so that they can design and conduct independent research.
- The comprehensive syllabus promotes and develops a thorough knowledge of concepts, methods and theory.
- The Ability Enhancement Compulsory Course strives to develop communication powers in the student, both written and oral and also incorporate the awareness about the environment.
- The Dissertations written by the students prepare them to examine social and environmental issues along with the causes, consequences and remedial measures emerging at local and national levels.
- The syllabus is oriented towards emerging job opportunities and future prospects for the students.
- Guidance is given to students in preparing for various competitive exams like NET, SET, SSC etc

**PROGRAMME NAME: Three Years B.Sc. (HONOURS) in Geography**  
**COURSE OUTCOMES**  
**SEMESTER-I**

<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>COURSE OUTCOMES</b>
<b>CC-1 (C1T)</b>	<b>GEOTECTONICS AND GEOMORPHOLOGY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Study the Earth's internal seismology; tectonic and structural evolution with reference to geological time scale and Isostatic equilibrium and anomaly</li> <li>• Know about the resulting landforms associated with Plate Tectonics and various types of folds and faults</li> <li>• Study landforms and the related processes from the traditional concept to the contemporary development in Geomorphology</li> <li>• Gain in-depth knowledge on the influence of various types of rocks on the development and evolution of the landforms; form- process interaction in the landform development through various exogenous agents; role of humans in landform development; traditional models of cyclic and non-cyclic landscape evolution</li> </ul> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• The skill for understanding endogenous and exogenous</li> </ul>

		<p>activities of Earth in a systematic way</p> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• To cope up with continuous progress in geotectonics and geomorphology</li> </ul>
<p><b>CC-2 (C2T &amp; C2P)</b></p>	<p><b>CARTOGRAPHIC TECHNIQUES AND LAB</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Gaining theoretical and practical knowledge about Plain Scale, Comparative Scale, Diagonal Scale and Vernier Scale, Coordinate System, types of bearing,</li> <li>• Gain knowledge in theoretical concept, derivation and plotting of Mercator's Projection, Simple Conical Projection with two Standard Parallels, Polar Zenithal Stereographic Projection, Bonne's Cylindrical Equal Area Projection</li> <li>• Use of topographical maps to perceive a landform or river basin; to efficiently use the topographical maps to obtain data with an objective to learn some morphometric techniques like types of relief profiles, relative relief map, average slope map (Wentworth), stream ordering (Strahler) and the interrelationship of the physical and cultural parameters through transect chart</li> <li>• Having a basic concept on surveying instruments like Prismatic Compass, Dumpy Level,</li> </ul>

		<p>Theodolite, Abney Level, Clinometer</p> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"><li>• Acquire knowledge and clear concepts of the different types of map and their drawing techniques</li></ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"><li>• Acquire knowledge of applicability of different types of maps</li></ul>
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**COURSE OUTCOMES**  
**SEMESTER—II**

COURSE CODE	COURSE NAME	COURSE OUTCOMES
<b>CC-3 (C3T)</b>	<b>HUMAN GEOGRAPHY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop deeper understanding of human geography and various approaches to study space, society and culture</li> <li>• Focus on establishing in-depth knowledge on the determinants and patterns of the evolutionary process of human through time; human adaptation, demographic transition; development-environment conflict and types and patterns of rural and urban settlement</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Identifying and resolving population issues in the context of processes of population change through time and space</li> <li>• Analysis of population data enables students to identify problems at the community and regional level</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Prepare the students to critically assess relevant population issues and making them aware</li> </ul>
<b>CC-4 (C4T &amp; C4P)</b>	<b>CARTOGRAMS AND THEMATIC MAPPING &amp; CARTOGRAPHY (LAB)</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Apply the theoretical knowledge gained in the practical aspects by</li> </ul>

		<p>using dumpy level and prismatic compass in the field; preparing and interpreting of thematic maps like proportional squares, pie diagrams with proportional circles, dots and spheres, choropleth, isopleth, and chorochromatics maps</p> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire knowledge and clear concepts of the different survey instruments</li> <li>• Develop the skill of spatial data acquisition, management, analysis and mapping</li> <li>• Create thematic maps defining the purpose, content and function of spatial data</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Applying the knowledge in producing appropriate and accurate cartographic images in project work</li> </ul>
<b>AECC-2</b>	<b>ENVS</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Have a clear concepts about various environmental issues and management techniques</li> </ul> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Identifying and resolving environmental problems through sustainable management strategies</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Applying the knowledge in producing a relevant project work</li> </ul>

**PROGRAMME NAME: Three Years B.Sc. (HONOURS) in Geography**  
**COURSEOUTCOMES**

**SEMESTER—III**

<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>COURSE OUTCOMES</b>
<p><b>CC-5 (C5T)</b></p>	<p><b>CLIMATOLOGY</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire clear concepts of climatology</li> <li>• Greater understanding of the nature and scope of climatology; factors controlling insolation and temperature distribution; greenhouse effect and importance ozone layer; process and forms of condensation; characteristics of airmass; circulation in the atmosphere; influences of cyclones; vagaries of Indian Monsoon; classification of climate according to Koppen, Thornthwaite, Oliver</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire knowledge and clear concepts of the different theories and mechanisms of climatology</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Response to Ozone hole depletion and increasing the awareness of greenhouse gases at individual as well as societal levels; cope with continuous modern theories of climatology</li> </ul>
<p><b>CC-6 (C6T &amp; C6P)</b></p>	<p><b>STATISTICAL METHODS IN GEOGRAPHY (PROJECT FILE)</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Understand the basic concept of sample and sampling; central tendency, dispersion, correlation,</li> </ul>



		<p>regression, time series analysis</p> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop ability to choose samples for surveying; draw scatter diagram and calculate the different types of correlation; regression and time series analysis</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Can undertake sample based primary survey for studying any socio-economic issues in real world</li> <li>• Identify the nature and strength of relationship among various parameters of socio-economic development</li> </ul>
<p><b>CC-5 (C5T)</b></p>	<p><b>GEOGRAPHY OF INDIA</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• In-depth knowledge of geomorphology climate, natural vegetation, agriculture, energy resources, industries and regional of India and West Bengal</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Conceptualize the concepts and approaches to examine the unity in diversity in the study of India as well as West Bengal</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Recognize characteristics and environmental and economic dimension of regionalization to address the issues and concern needed for further research work in National and State Level</li> </ul>

<p style="text-align: center;"><b>SEC-1T</b></p>	<p style="text-align: center;"><b>COASTAL MANAGEMENT</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Greater understanding of the coastal morphodynamic variables; various coastal environmental exploitations, their impacts and management; recent coastal threats and hazards and their structural and non- structural measures; CRZ; ICZM; EEZ</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop ability to understand the coastal issues and management strategies for sustainable coastal development</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Identify the nature and strength of relationship among various parameters of coastal morphodynamism</li> <li>• Can undertake instrument based field survey or perception survey for studying the influences of coastal hazard</li> </ul>
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**COURSE OUTCOMES  
SEMESTER—IV**

<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>COURSE OUTCOMES</b>
<b>CC-8 (C8T)</b>	<b>REGIONAL PLANNING AND DEVELOPMENT</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Concepts of region, regionalization and regional planning; theories on recent development; concept on inequality and regional disparity</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Delineation of formal and functional region</li> <li>• Identity the best measures of inequality and various indicators of regional development</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Analyze the interstate imbalance in India with respect to various indicators of development</li> <li>• Ability to prepare plans for development in backward region and backward group</li> </ul>
<b>CC-9 (C9T)</b>	<b>ECONOMIC GEOGRAPHY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire knowledge of the fundamental and modern issues in Economic Geography</li> <li>• To gain in-depth knowledge of the concepts and approaches; classification of economic activities and their changing trend; theories of economic development; locational aspect based on</li> </ul>

		<p>agricultural according to Von Thunen's model and Weber's model based on industry and concepts of crop concentration, diversification, combination; agricultural productivity and efficiency; industrial regions and spatial variation in production and transport costs and gain knowledge on transport and marketing geography, GATT and OPEC</p> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop knowledge on geographical aspects of economy; types of economic activities</li> <li>• Conceptualize, demarcate and analyze the geographical determinates of agriculture, manufacturing activities, transport and communication</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Inculcate the knowledge of changing dynamics in the industrial, transport and agricultural sector that will help them in their research studies</li> </ul>
<p><b>CC-10 (C10T &amp; C10P)</b></p>	<p><b>ENVIRONMENTAL GEOGRAPHY (Lab)</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Greater understanding of the geographers approach to environmental studies; space-time hierarchy of environmental problems and programmes and</li> </ul>

		<p>policies in local, regional and global level; strategies of waste management</p> <ul style="list-style-type: none"> <li>• Working on questionnaire and checklist preparation for estimating EIA; pH and NPK tests on collected sample soils; CPCB/WBPCB data interpretation</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Handling of data from various environmental issues</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Develop critical thinking on environmental problems and analyzing those data in the lab</li> </ul>
SEC-2T	<p><b>ADVANCED SPATIAL STATISTICAL TECHNIQUES</b> (Software practice and Project file)</p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Understanding of statistical techniques with focus on probability theory; sampling distribution; correlation and regression analysis; multivariate analysis and Time series analysis</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Handling of statistical data using MS Excel</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Develop critical thinking and process statistical data for analyzing it with the help of MS Excel</li> </ul>

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**COURSE OUTCOME  
SEMESTER—V**

<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>COURSE OUTCOMES</b>
<b>CC-11 (C11T &amp; C11P)</b>	<b>FIELD WORK AND RESEARCH METHODOLOGY (LAB AND PROJECT WORK)</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire knowledge of the fundamental concepts of research methodology</li> <li>• To gain in-depth knowledge of the concepts and approaches of geographical field work; various techniques and tools of field survey</li> </ul> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop knowledge and skills on pursuing a field survey and analyzing the data collected to form a report</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Selection of research problem; forming research design; collecting secondary and primary data; analysis, report writing</li> </ul>
<b>CC-12 (C12T &amp; C12P)</b>	<b>REMOTE SENSING AND GIS (LAB)</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Gain knowledge on Remote Sensing of the environment, interaction of EMR with earth surface features its characteristics; principles of Image Interpretation</li> <li>• Knowledge on the definition of GIS; various components of GIS; structure of GIS; data input; storage and output</li> </ul>

		<p>in GIS and principles of GNSS</p> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop knowledge about the theoretical bases, principles, types and application of satellite image</li> <li>• Geo-referencing; conversion of raster image to vector map</li> <li>• Hands on training in ARC GIS</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Students can efficiently assess the scientific principles of Remote Sensing Techniques</li> <li>• Prepare a thematic map, LULC map and extract spatial data by using ARC GIS</li> </ul>
<p><b>DSE-1</b></p>	<p><b>HYDROLOGY AND OCEANOGRAPHY</b></p>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Physical and chemical properties of sea water; bottom relief features with special reference to plate tectonics; water mass; temperature and salinity-distribution and determinants; T-S Diagram; ocean currents; waves &amp; tides; Air-sea interaction; Marine Resources; sea level changes</li> <li>• Knowledge about systematic approach in hydrology with respect to Global Hydrological cycle; Run off cycle; Drainage basin; water harvesting and watershed management; Ground water movement</li> </ul> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Identification of causes, factor, determinants, distribution of ocean relief, circulations, properties and</li> </ul>

		<p>resources and recent threats from sea level changes</p> <ul style="list-style-type: none"> <li>• Develop knowledge about various hydrological factors; watershed management and water harvesting techniques</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Ability to adapt with the changing hydrological and oceanographic variability with climate change</li> </ul>
<b>DSE-2</b>	<b>SOCIAL GEOGRAPHY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Gaining concept about various attributes of space, social categories, social region, peopling process of India; social well-being; various conflicting concepts of social geography; social planning and policies; SIA</li> </ul> <p><b>SKILL GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop knowledge about various issues of social geography</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Acquire competency to address a variety of contemporary issues in the light of changing social structure</li> </ul>

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**COURSE OUTCOMES  
SEMESTER—VI**

<b>COURSE CODE</b>	<b>COURSE NAME</b>	<b>COURSE OUTCOMES</b>
<b>CC-13 (C13T)</b>	<b>EVOLUTION OF GEOGRAPHICAL THOUGHT</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Acquire basic concepts in geographical thoughts through ancient, medieval and modern periods; recent trends and explanations in geography</li> </ul> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop philosophical and historical aptitude among students in the context of evolution and development of geographical ideas, theme, approaches and knowledge</li> <li>• Acquaint students with the philosophers of different schools of thought that have contributed in the development of geography as a branch of knowledge.</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Understanding of the basic theme, ideas, dichotomies and approaches of geographic knowledge</li> <li>• Critically evaluate the nature of geography as spatial science with changing space and time</li> </ul>
<b>CC-14 (C14T &amp; C14P)</b>	<b>DISASTER MANAGEMENT (PROJECT WORK)</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Developing knowledge about the differences between Hazard and Disaster; various approaches to risk and vulnerability assessment; responses to hazards; resilience and</li> </ul>

		<p>capacity building and hazard mapping techniques; disaster case studies of earthquake, landslide, cyclone and fire.</p> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"> <li>• Applying the knowledge in producing a relevant project work</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Framing out a preparedness plan for a local disaster</li> </ul>
<b>DSE-3</b>	<b>SOIL AND BIOGEOGRAPHY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Understanding the factors and properties of soil formation, soil profile based on spatial variation, soil degradation and classification</li> <li>• The concept of habitat, ecosystem, biome, ecotone, community, trophic structure, energy flow, bio-geochemical cycle, biodiversity, understanding the geography of different biomes in the earth in a more analytical perspective.</li> </ul> <p><b>SKILL DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Ability to see the living world from geographical perspective with special importance to pedology</li> </ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"> <li>• Use of the knowledge in further academic development.</li> </ul>
<b>DSE-4</b>	<b>URBAN GEOGRAPHY</b>	<p><b>KNOWLEDGE GAINED:</b></p> <ul style="list-style-type: none"> <li>• Develop deeper understanding of Urban geography and its approaches</li> <li>• Focus on establishing in-depth knowledge on origin and theories of spatial and temporal basis of urban studies; processes of urbanization and urban growth; urban Issues; policies in</li> </ul>

		<p>India; case studies on Delhi, Kolkata and Chandigarh</p> <p><b>SKILLS GAINED:</b></p> <ul style="list-style-type: none"><li>• Helps to understand, analyse and interpret the morphology of urban centres</li><li>• Learn the significance of human activities, physical-biological and cultural phenomena, across temporal and spatial variations, that influence the urban landscape</li></ul> <p><b>COMPETENCY DEVELOPED:</b></p> <ul style="list-style-type: none"><li>• Acquire competency to address a variety of contemporary issues in the light of rapid expansion of the dynamic discipline</li><li>• Understand and appreciate the value of different perspectives to examine the complexities of urban life and the consequences inherent in the built-up environment</li></ul>
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