

# **GEOGRAPHY DEPARTMENT**

## **COURSE OUTCOMES OF GEOGRAPHY HONOURS (B.A. & B.SC.) UNDER CBCS**

Geography mainly concerns changes in spatial attributes from a temporal perspective. It focuses on spatial studies, qualitative as well as quantitative, and gives impotence on human-environment relationships. They also examine how human culture interacts with the natural environment and the way those locations and every place can have a unique impact on people. Geography tries to understand where things are found, why they are there, and how this development and change happens over time.

### **Choice-Based Credit System (CBCS): Syllabus in Geography**

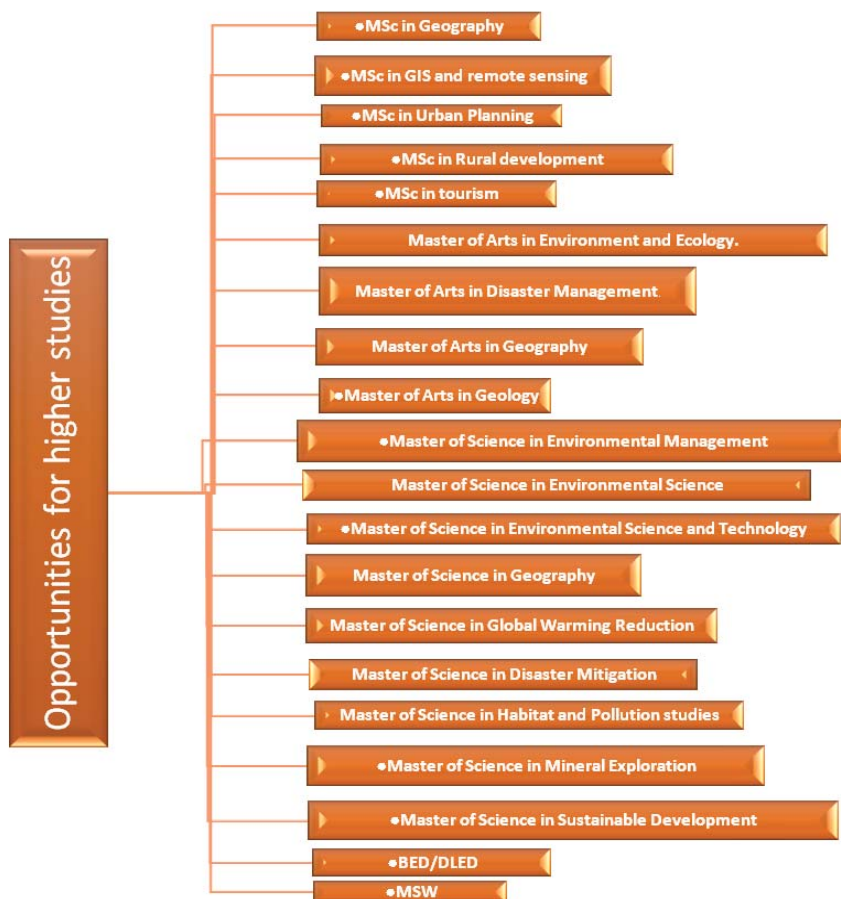
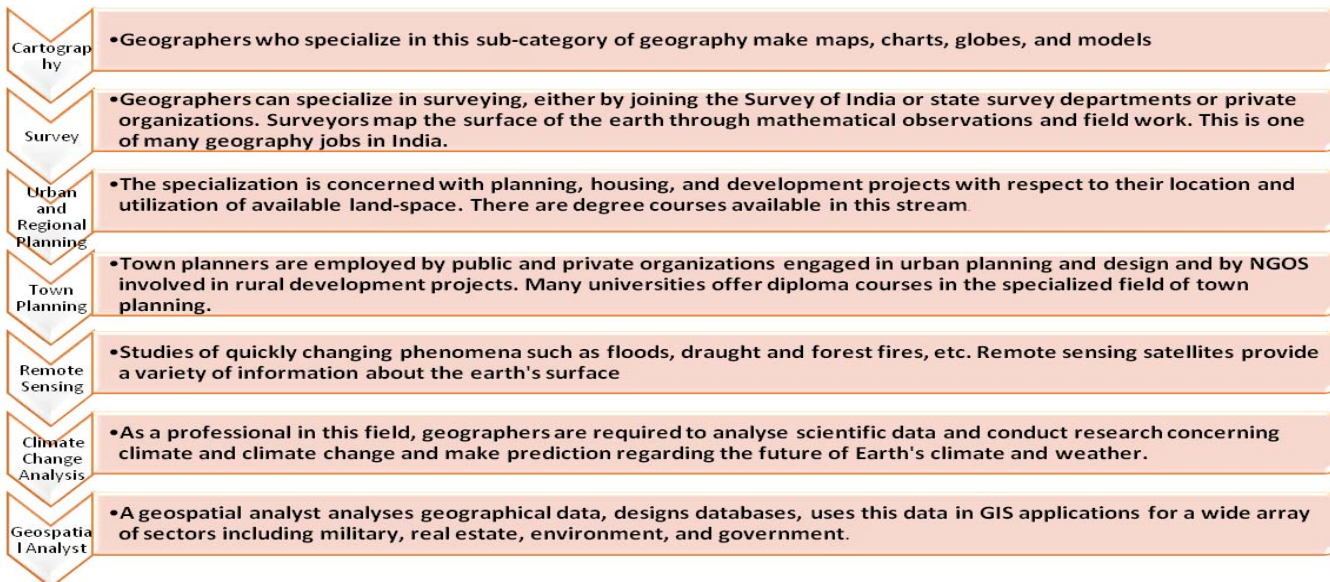
**INTRODUCTION: In compliance with recent directives from the University Grants Commission, the undergraduate syllabus for Geography is reframed into Choice Based Credit System largely following the model syllabus prepared by the West Bengal State Council of Higher Education.**

The main objective of this new curriculum is to give the students a holistic understanding of the subject, putting equal weightage on 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 undergraduate programme in geography is tailored to meet the student's specific educational and professional goals in mind.

A focus is placed on applied aspects of the subject, such as emerging techniques of mapping and field-based data generation, especially in the undergraduate program, in accordance with the changing nature of Geography. By developing basic skills in the subject, the syllabus ensures that no one has to go for higher studies to find employment or engagement.

**LEARNING OUTCOMES:** This syllabus is designed to impart basic knowledge on

geography as a spatial science and train undergraduates to secure employment in the sectors of geospatial analysis, development and planning, mapping and surveying.



## Career & Opportunities in Geography



### ***Honours Course: Core Subjects***

*GEO-A-CC-1-01-TH/P – Geotectonic and Geomorphology*

*GEO-A-CC-1-02-TH/P – Cartographic Techniques GEO-A-CC-2-03-TH/P – Human Geography*

*GEO-A-CC-2-04-TH/P – Cartograms, Thematic Mapping and Surveying*

*GEO-A-CC-3-05-TH/P – Climatology*

*GEO-A-CC-3-06-TH/P – Hydrology and Oceanography*

*GEO-A-CC-3-07-TH/P – Statistical Methods in Geography*

*GEO-A-CC-4-08-TH/P – Economic Geography*

*GEO-A-CC-4-09-TH/P – Regional Planning and Development*

*GEO-A-CC-4-10-TH/P – Soil and Biogeography*

*GEO-A-CC-5-11-TH/P – Research Methodology and Fieldwork*

*GEO-A-CC-5-12-TH/P – Remote Sensing, GIS and GNSS*

*GEO-A-CC-6-13-TH/P – Evolution of Geographical Thought*

*GEO-A-CC-6-14-TH/P – Disaster Management*

### ***Honours Course: Choices for Four Discipline Specific Electives***

*GEO-A-DSE-A-5-01-TH/P – Fluvial Geomorphology*

*GEO-A-DSE-A-5-02-TH/P – Climate Change: Vulnerability and Adaptations*

*GEO-A-DSE-A-5-03-TH/P – Environmental Issues in Geography GEO-A-*

*DSE-A-5-04-TH/P – Resource Geography*

*GEO-A-DSE-B-6-05-TH/P – Cultural and Settlement Geography*

*GEO-A-DSE-B-6-06-TH/P – Social Geography*

*GEO-A-DSE-B-6-07-TH/P – Urban Geography GEO-B-*

*DSE-B-6-08-TH/P- Geography of India*

### ***Honours Course: Choices for Two Skill Enhancement Courses***

*GEO-A-SEC-A-3-01-TH – Coastal Management GEO-A-SEC-*

*A-3-02-TH – Tourism Management GEO-A-SEC-B-4-03-TH –*

*Rural Development*

*GEO-A-SEC-B-4-04-TH – Sustainable Development*

**General Course: Core Subjects**

*GEO-G-CC-1-01-TH/P – Physical Geography*

*GEO-G-CC-2-02-TH/P – Environmental Geography*

*GEO-G-CC-3-03-TH/P – Human Geography*

*GEO-G-CC-4-04-TH/P – Cartography*

**General Course: Choices for Two Discipline Specific Electives**

*GEO-G-DSE-A-5-01-TH/P – Regional Development*

*GEO-G-DSE-A-5-02-TH/P – Geography of Tourism*

*GEO-G-DSE-B-6-03-TH/P – Agricultural Geography*

*GEO-G-DSE-B-6-04-TH/P – Population Geography*

**General Course: Choices for Two Skill Enhancement Courses**

*GEO-G-SEC-A-3/4-01-TH – Coastal Management*

*GEO-G-SEC-B-5/6-03-TH – Rural Development*

## 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
CC-1-01 Th+P	Geotectonics and Geomorphology	4+2=6	<p><b>CO1.</b> Understand the theories and fundamental concepts of Geotectonic and Geomorphology. Understand the earth's tectonic and structural evolution. Gain knowledge about the earth's interior. Develop an idea about the concept of plate tectonics, and resultant landforms.</p> <p><b>CO2.</b> Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms.</p> <p><b>CO3.</b> Understand the processes of erosion, deposition and resulting landforms.</p> <p><b>CO4.</b> Overview and critical appraisal of landform development models.</p> <p><b>CO5.</b> Develop the skills of identification of river basins and their features in the real world.</p> <p><b>CO6.</b> Gain knowledge about topographical maps and apply this knowledge to the ground surface.</p> <p><b>CO7.</b> Identification of different types of rock and minerals.</p>
CC-1-02 Th+P	Cartography c Techniques	4+2=6	<p><b>CO1.</b> Understand and prepare different kinds of maps.</p> <p><b>CO2.</b> Recognize basic themes of map-making.</p> <p><b>CO3.</b> Development of observation skills.</p>
CC-2-03 Th+P	Human Geography	4+2=6	<p><b>CO1.</b> Gain knowledge about major approaches of human Geography.</p> <p><b>CO2.</b> Acquire knowledge of the history and evolution of humans.</p> <p><b>CO3.</b> Develop an idea about space and society</p> <p><b>CO4.</b> Build an idea about population growth and distribution of population.</p> <p><b>CO5.</b> . Know about population –resource relationship.</p> <p><b>CO6.</b> Know about diagrammatic data presentation like lines, bar and circles.</p> <p><b>CO7.</b> Develop an idea about different types of thematic mapping techniques</p>

CC-2-04 Th+P	Thematic Mapping and Surveying	4+2=6	<p><b>CO1.</b> Comprehend the concept of scales and representation of data through cartograms.</p> <p><b>CO2.</b> Interpret geological and weather maps.</p> <p><b>CO3.</b> Learn the usage of survey instruments.</p> <p><b>CO4.</b> Brings direct interaction of different types of surveying instruments like Dumpy level and Theodolite with the environment.</p> <p><b>CO5.</b> Develop an idea about different types of thematic mapping techniques.</p>
Course Code	Course Title	Credits	Course Outcomes
CC-3-05 Th+P	Climatology	4+2=6	<p><b>CO1.</b> Learn the interaction between the atmosphere and the earth's surface.</p> <p><b>CO2.</b> Understand the importance of the atmospheric pressure and winds and learn to associate climate with other environmental and human issues.</p> <p><b>CO3.</b> Understand how atmospheric moisture works, the elements of weather and climate, different atmospheric phenomena and climate change.</p> <p><b>CO4.</b> Prepare various climatic maps and charts and interpret them.</p> <p><b>CO5.</b> Learn to use various meteorological instruments.</p> <p><b>CO6.</b> Approaches to climate classification.</p>
CC-3-06 Th+P	Hydrology and Oceanography	4+2=6	<p><b>CO1.</b> Analyse the fundamental concepts of Hydrology and Oceanography</p> <p><b>CO2.</b> Emphasizing the significance of groundwater quality and its circulation, utilisation</p> <p><b>CO3.</b> Evaluate the role of the global hydrological cycle.</p> <p><b>CO4.</b> Studying the characteristics of the global oceans' salinity temperature, and density.</p> <p><b>CO5.</b> Realize the importance of water conservation, rainwater harvesting, and watershed management.</p> <p><b>CO6.</b> Identify marine resources and characteristics of ocean waters.</p> <p><b>CO7.</b> Interpret hydrological and rainfall dispersion graphs and diagrams, hydrograph, rating curve</p>

CC-3-07 Th+P	Statistical Methods in Geography	4+2=6	<p>CO1. Learn the significance of statistics in geography.</p> <p>CO2. Understand the importance of the use of data in geography</p> <p>CO3. Know about different types of sampling.</p> <p>CO4. Develop an idea about hypothesis creation.</p> <p>CO5. Interpret statistical data for a holistic understanding of geographical phenomena.</p> <p>CO6. Learn to use tabulation of data.</p> <p>CO7. Gain knowledge about association and correlation.</p>
Course Code	Course Title	Credits	Course Outcomes
CC-3- SEC 1 TH	Tourism Management	2	<p>CO1. They can know about concepts, nature and scope, inter-relationships of tourism, recreation and leisure.</p> <p>CO2. They understand types of tourism.</p> <p>CO3. Know about recent trends in tourism.</p> <p>CO4. Develop an idea about tourism in India.</p> <p>CO5. Know about National Tourism Policy.</p>
CC-4-08 Th+P	Economic Geography	4+2=6	<p>CO1. They can understand the concept of economic activity, and factors affecting the location of economic activity.</p> <p>CO2. They gain knowledge about different types of Economic activities and the evolution of varied types of economic activities.</p> <p>CO3. Develop an idea about Economic Geography, the concept of economic man and theories of choice.</p> <p>CO4. Analyze the factors of the location of agriculture and industries.</p> <p>CO5. They can interpret data on production, economic indices, transport network and flows.</p>

<p>CC-4-09 Th+P</p>	<p>Regional Planning and Development</p>	<p>4+2=6</p>	<p>           ? <b>CO1.</b>Analyzing and identifying regions as an integral part of geographical study and regionalization.  <b>CO2.</b>Studying typical physiographic, planning, arid and biotic regions of India            ? <b>CO3.</b> Build an idea about theories and models for regional planning.  <b>CO4.</b> . Know about measuring development indicators            ? <b>CO5.</b>Gain knowledge about measuring inequality by Location Quotient, measuring regional disparity by Sopher Index and also delineation of functional regions by breaking point analysis.            ? <b>CO6.</b>They can know about delineation of formal regions by weighted index method         </p>
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Course Code	Course Title	Credits	Course Outcomes
CC-4-10 Th+P	Soil and Biogeography	4+2=6	<p><b>CO1.</b> They can know the soil formation processes, development and soil physical and chemical composition.</p> <p><b>CO2.</b> Recognize land capability, classify &amp; the genetic, U.S.D.A.soil classification .</p> <p><b>CO3.</b> They can illustrate the importance about bio-diversity, biome, ecotone and community, types and component parts of ecosystem, bio-energy cycle, food chain and trophic level.</p> <p><b>CO4.</b>Comprehend the devastating impact of deforestation and biodiversity loss..</p> <p><b>CO5.</b> Delineation soil salinity by refractometer and derive their pH.</p> <p><b>CO6.</b>Gain knowledge about measuring biodiversity index.</p>
CC-4- SEC 2	Rural Development	2	<p><b>CO1.</b> They can know about concept, basic elements, and measures of level of rural development.</p> <p><b>CO2.</b> They understand the paradigms of rural development.</p> <p><b>CO3.</b> They understand the area based approach to rural development.</p> <p><b>CO4.</b> Develop an idea about a target group approach to rural development.</p> <p><b>CO5.</b> Gain knowledge about rural governance.</p>

CC-5-11 Th+P	Research Methodology and Fieldwork	4+2=6	<p><b>CO1.</b> Identification of study area to acquire field study.</p> <p><b>CO2.</b> Learn methodology, quantitative and quantitative analysis of study area and also map to be drawn about the area .</p> <p><b>CO3.</b> Understand the different types of field techniques of study area.</p> <p><b>CO4.</b> To know about the idea of tabulation processing, mapping, photography and video recording.</p>
Course Code	Course Title	Credits	Course Outcomes
CC-5-12 Th+P	Remote Sensing, GIS and GNSS	4+2=6	<p><b>CO1.</b> They understand the principles of remote sensing, types of remote sensing and their applications.</p> <p><b>CO2.</b> Analyzing and interpreting the satellite imagery to understand the cultural features on the Earth's surface.</p> <p><b>CO3.</b> They learn the false color composites of satellite imagery .</p> <p><b>CO4.</b> They aware the software of Geographic Information System (GIS) and maximize the efficiency of decision making and planning to use the software.</p> <p><b>CO5.</b> They understand the principles of GNSS positioning and waypoint collection.</p> <p><b>CO6.</b> Leading field survey preparation of field report on research on problem in different areas.</p> <p><b>CO7.</b> Understand the utilization of Digital Elevation Model Data.</p>

<p>CC-6-13 Th+P</p>	<p>Evolution of Geographical Thought</p>	<p>4+2=6</p>	<p><b>CO1.</b> Gain knowledge about development of geographical thought of Ancient and medieval period.</p> <p><b>CO2.</b> Develop an idea about the evolution of geographical thinking and disciplinary trends in Germany, France, Britain, and the United States of America.</p> <p><b>CO3.</b> Build an idea about between environmental determinism and possibilism, systematic and regional.</p> <p><b>CO4.</b> Know about the trends of geographical thoughts. Analyzing modern and contemporary trends of geographical thoughts, principles of Empiricism, Positivism, Structuralism, Human and Behavioral Approaches in Geography.</p> <p><b>CO5.</b> They can draw the voyages of different explorers.</p>
<p>CC-6-14 Th+P</p>	<p>Hazard Management</p>	<p>4+2=6</p>	<p><b>CO1.</b> Understand the nature of hazards and disasters.</p> <p><b>CO2.</b> Assess risk, perception and vulnerability with respect to hazards.</p> <p><b>CO3.</b> Prepare hazard zonation maps.</p> <p><b>CO4.</b> Assessing the nature, impact and management of major natural and man-made hazards affecting the Indian subcontinent.</p> <p><b>CO5.</b> They have to know how prepare a project report based on any one field based case study on flood, landslide, earthquake and human induced disaster.</p>

## COURSE OUTCOMES

### [DISCIPLINE SPECIFIC ELECTIVES]

Course Code	Course Title	Credits	Course Outcomes
GEO-A- DSE-A-5- 02- TH+P	Climate Change: Vulnerability and Adaptations	4+2=6	<p><b>CO1.</b>Understand climate change with reference to the geological time scale.</p> <p><b>CO2.</b>Assess the Origin Greenhouse gases and global warming</p> <p><b>CO3.</b>Global climatic assessment and Impact of climate change:Agriculture and water; flora and fauna; human health and morbidity</p> <p><b>CO4.</b>Analysis of trends of temperatures</p> <p><b>CO5.</b>Analyze the rainfall variability of about three decades of climatic regions of India.</p> <p><b>CO6.</b>Understand Climate change vulnerability assessment and adaptive strategies with particular reference to South Asia</p> <p><b>CO7.</b>Analyse the Role of urban local bodies, panchayats and educational institutions on climate change mitigation: Awareness and action programmes</p> <p><b>CO8.</b>Develop concepts and skills regarding mitigation measures concerning climatic hazards.</p>
GEO-A- DSE-A-5- 04 TH+P	Resource Geography	4+2=6	<p><b>CO1.</b> Develop an idea about concept and classification of resources</p> <p><b>CO2.</b> Understand the concept of different types of resources approaches to resource utilization.</p> <p><b>CO3.</b> Acquire knowledge about different types of power resources and depletion with special reference to forests, water and fossil fuels.</p> <p><b>CO4.</b> Explain population - resource relationship and different types of population resources.</p> <p><b>CO5.</b>Analyze the contemporary energy crisis and assess the future scenario.</p> <p><b>CO6.</b>..Develop the skill of mapping forest cover from satellite images.</p> <p><b>CO7.</b>Develop the skill of mapping water bodies from satellite images.</p> <p><b>CO8.</b>..Analyze the decadal changes in state-wise production of coal and iron ore</p> <p><b>CO9.</b>Learn to compute HDI</p>

GEO-A- DSE-B- 6-05- TH+P	Cultural and Settlement Geography	4+2=6	<p><b>CO1.</b>Understand the scope and content of cultural geography</p> <p><b>CO2.</b> Trace the development of cultural geography in relation to allied disciplines</p> <p><b>CO3.</b>Understand the concept of cultural hearth and realm, cultural diffusion, diffusion of religion</p> <p><b>CO4.</b> Develop an understanding of cultural segregation and cultural diversity, technology and development</p> <p><b>CO5.</b>Learn about the various races and racial groups of the world</p> <p><b>CO6.</b>Identify the cultural regions of India</p> <p><b>CO7.</b> Build an idea about urban and rural settlements, and its relationship with environment and also different theories related to settlement geography.</p> <p><b>CO8.</b> Know about classification and morphology of settlements.</p> <p><b>CO9.</b> Understand the trends and patterns of world urbanization.</p> <p><b>CO10.</b> Know about different theories of urban growth.</p>
GEO-A-DSE- B- 6-08-TH+P	Geography Of India	4+2=6	<p><b>CO1.</b> They can know about their own countries' land formation, climate and natural vegetation.</p> <p><b>CO2.</b> They understand the economic resources of India.</p> <p><b>CO3.</b> They understand the social distribution of the population of their country.</p> <p><b>CO4.</b> Develop an idea about the regionalisation of India.</p> <p><b>CO5.</b> Learn to draw monthly temperature and rainfall graphs.</p> <p><b>CO6.</b> Gain knowledge about measuring arithmetic growth rate of population and also measures of inequality.</p> <p><b>CO7.</b>Gain knowledge about crop combination by Weaver</p>