

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

Geography is a systematic study of the Earth, its features, and phenomena that take place on it. For something to fall into the domain of geography, it generally needs some sort of spatial component that can be placed on a map, such as coordinates, place names, or addresses. This has led to geography being associated with cartography and place names. Geographers study the Earth's spatial and temporal distribution of phenomena, processes, and features as well as the interaction of humans and their environment. Because space and place affect a variety of topics, such as economics, health, climate, plants, and animals, geography is highly interdisciplinary.

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.

Course outcome (CO): Geography

SEMESTER	PAPERS	UNIT	COURSE	OUTCOMES
SEMESTER I	GEO-A- CC-I-01 (TH & PR)	Geotectonics and Geomorphology	CO1	CO1.1 Understand the earth's tectonic and structural changes and its resultant landforms and theories. CO1.2. Knowledge about types of folds and faults, fluvial, glacial, coastal processes and associated landforms. CO1.3. Idea about the application

				of clinometers. CO1.4. Identification of different types of rock and minerals.
	GEO-A-CC-I-02 (TH & PR)	Cartographic Techniques	CO2	CO2.1 Understand the concept of maps and its components. Introduce the Survey of India topographical map. CO2.2. Significance of UTM projection and geoid spheroid concept. CO2.3. Draw difference type of scales and different type of map projections. CO2.4. Develop the idea about different type of thematic mapping techniques.
SEMESTER II	GEO-A-CC-2-03 (TH & PR)	Human Geography	CO3	CO3.1 Gain knowledge about space and society. Concept of race and ethnicity. CO3.2. Learn about the approaches of human geography. CO3.3. Build an idea of population growth and its distribution. Also the rural and urban settlement patterns and house type. CO3.4. Idea of thematic mapping related to population with settlement pattern and concept and draw population pyramids.
	GEO-A-CC-2-04 (TH & PR)	Thematic Mapping And Surveying	CO4	CO4.1. Idea about diagrammatic data representation based on thematic mapping. CO4.2. Preparation and interpretation of geological map. landuse landcover map, socio economic map. CO4.3. Basic idea of principal national agencies producing thematic mapping in India like

				<p>NATMO, GSI, NBSSLUP, NHO, NRSC/Bhuvan etc.</p> <p>CO4.4. Interactions of different types of surveying instruments like Dumpy level, Prismatic Compass and Theodolite with environment.</p>
SEMESTER III	GEO-A- CC-3-05 (TH & PR)	Climatology	CO5	<p>CO5.1. Learn about the elements of the atmosphere and its layering. Overview of climatic change and monsoon mechanism with reference to India.</p> <p>CO5.2. Develop the concept about the atmospheric phenomena and climatic classification. Learn the formation of air mass, fronts, jet streams, cyclones and thunderstorms.</p> <p>CO5.3. Learn to use of various meteorological instruments like six`'s thermometer, barometer and hygrometer.</p> <p>CO5.4. Gain knowledge about the Indian daily weather report, identification and interpretation.</p>
	GEO-A- CC-3-06 (TH & PR)	Hydrology and Oceanography	CO6	<p>CO6.1. Study the global cycle, run off hydrological off ground water movement, water harvesting and watershed management.</p> <p>CO6.2. Learn about the ocean water circulation its physical and chemical properties. Different elements of ocean water, coral reefs, marine resources and sea level change.</p> <p>CO6.3. Learn to construct ant interpret the rating curve, hydrograph, unit hydrograph.</p> <p>CO6.4. Learn to draw rainfall</p>

				dispersion diagram, climatic water budget, ergograph and theissen polygon from precipitation data.
	GEO-A-CC-3-07 (TH & PR)	Statistical Methods in Geography	CO7	CO7.1. Understand the importance of statistical data analysis in geography. CO7.2. Build an idea about theoretical distribution, also know about various type of sampling, understand time series analysis, central tendency, regression, correlation and hypothesis testing. CO7.3. Learn to use frequency table and data matrix of the samples. CO7.4. Understand and draw a scatter diagram and linear regression by using sample set of two relevant attributes.
	GEO-A-SEC-A-3-02-TH	Tourism Management	CO9	CO9.1. Understand the scope and nature of tourism, ecotourism, factors and impact of tourism, trend of global tourism, infrastructure and planning.
SEMESTER IV	GEO-A-CC-4-08(TH & PR)	Economic Geography	CO10	CO10.1. It gives idea of meaning, approaches, concepts of economic geography and concept of economic man, distance and transport costs. CO10.2. Understand the different types of economic activities and international trades and organizations. CO10.3. Construct Choropleth mapping, occupational structure by proportional divided circles, time series analysis and transport

				network analysis.
GEO-A-CC-4-09 (TH & PR)	Regional Planning and Development	CO11	<p>CO11.1. Aware of regions, regional planning, multi-level planning in India, metropolitan area and urban agglomeration.</p> <p>CO11.2. Understand the growth and development, models and theories of regional development, regional disparity, diversity and measures for balanced development in India.</p> <p>CO11.3. Delineate formal and functional regions, measurement of inequality and regional disparity,</p>	
GEO-A-CC-4-10 (TH & PR)	Soil and Biogeography	CO12	<p>CO12.1. Understand the soil forming factors, soil properties, soil profile, soil erosion and degradation, soil classification.</p> <p>CO12.2. Understand the different terms of biogeography, tropic structure, energy flow, bio-geochemical cycles, deforestation, biodiversity.</p> <p>CO12.3. Examine soil reaction, salinity, ternary diagram, plant species diversity by matrix method, time series analysis of biogeography data.</p>	
GEO-A-SEC-B-4-03-TH	Rural Development	CO13	<p>CO13.1. Know about the basic concept, elements and measures of level of rural development.</p> <p>CO13.2. Understand the paradigms of rural development.</p> <p>CO13.3. Study about the area bases approach to rural development.</p>	

				CO13.4. Develop the knowledge about rural governance. Panchayati raj system and rural development policies and programmes in India.
	GEO-A- SEC-B-4- 04-TH	Sustainable Development	CO14	CO14.1. Study the concept, historical background, components and limitations of sustainable development. CO14.2. Learn what are the challenges of sustainable development correlate with environment and poverty. CO14.3. Study the global environmental issues and global goals for sustainable development.
SEMESTER V	GEO-A- CC-5-11 (TH &PR)	Research Methodology and Fieldwork	CO15	CO15.1. Aware of research methodology, research design, hypothesis, research problems, research materials and plagiarism. CO15.2. It gives the idea of role of fieldwork in geography, field techniques and tools, sampling and post field tabulation and analysis of data. CO15.3. Apply research techniques on field survey and make a field report.
	GEO-A- CC-5-12 (TH & PR)	Remote Sensing, GIS and GNSS	CO16	CO16.1. Get information about principles of remote sensing, sensor, image referencing schemes, FCC, image interpretation, acquisition and utilization. CO16.2. Know about GIS data structure, attribute tables, data manipulation, buffer and overlay analysis.

				CO16.3. Apply image dereferencing and enhancement, supervised image classification, digitization of features and administrative boundaries, waypoint collection from GNSS.
	GEO-A-DSE-A-5-02 (TH & PR)	Climate Change: Vulnerability and Adaptations	CO18	<p>CO18.1. Know the trend evidences and factors of climate change according to geological time scale, greenhouse gases and global warming.</p> <p>CO18.2. It gives idea of global initiatives to climate change mitigation, vulnerability assessment and awareness programmes.</p> <p>CO18.3. Analysis the trends of temperature, rainfall and mitigation measure of extreme climatic events.</p>
	GEO-A-DSE-B-5-05 (TH & PR)	Cultural and Settlement Geography	CO19	<p>CO19.1. It gives the knowledge of development of cultural geography, cultural hearth, realm, diffusion, segregation, diversity, races and racial groups and cultural regions.</p> <p>CO19.2. Understand the concept of rural and urban settlement, types, rural house types, urban morphology, city-region and conurbation.</p> <p>CO19.3. Determine mapping language distribution of India, housing distribution by Proportional Square, types of rural settlement and social area analysis.</p>
SEMESTER VI	GEO-A-CC-5-13 (TH &	Evolution of Geographical Thought	CO21	CO21.1. Get information about the nature of pre-modern geography, contribution of geographers, dark

	PR)			<p>age and discovery and exploration in geography, transition from cosmology to scientific geography.</p> <p>CO21.2. Get idea about foundations of modern geography and recent trends, changing concept and evolution of critical geography, post modernism.</p> <p>CO21.3. Identify the Identify the changing perception of maps of the world, timeline on geographers.</p>
	GEO-A-CC-5-14 (TH & PR)	Disaster Management	CO22	<p>CO22.1. Find out the concepts of hazards and disasters, approaches to hazard study, responses to hazards, hazards mapping.</p> <p>CO22.2. It gives idea of factors, vulnerability, consequences and management of earthquake, landslide, land subsidence, tropical cyclone, flood, riverbank erosion, fire and biohazard.</p> <p>CO22.3. Prepare a report on hazard management.</p>
	GEO-A-DSE-A-6-04 (TH & PR)	Resource Geography	CO24	<p>CO24.1. Study the concept, classification, approaches to resource utilization. Also they will find out the problems of resource depletion and sustainable resource development.</p> <p>CO24.2. Gain knowledge about the resource conflict and management. Contemporary energy crisis and future scenario. Politics of power resources and concept of limits to growth.</p> <p>CO24.3. Learn the application of</p>

				<p>mapping of forest cover and water bodies using satellite images.</p> <p>CO24.4. Identify the decadal changes in state wise production of coal and iron ore and computing human development index.</p>
	GEO-A-DSE-B-6-07 (TH & PR)	Urban Geography	CO25	<p>CO25.1. Study the urban settlements its origin and evolution and its relates theories. Also students know the approaches, patterns of urbanization, aspects of urban places and urban hierarchies.</p> <p>CO25.2. Learn about the urban growth, models of city structure, policies on urbanization and case studies in different cities with reference to land use.</p> <p>CO25.3. Diagrammatic concept of rank size rule, temporal analysis and I show the urban growth using census data.</p> <p>CO25.4. Learn how to prepare a land use map with the help of satellite images.</p>
	GEO-A-DSE-B-6-08 (TH & PR)	Geography of India	CO26	<p>CO26.1. Study the physiographic divisions, climate, soil, vegetation, agricultural region, mineral and power resources.</p> <p>CO26.2. Know about the population distribution and tribes in India. Although they also learn the geography of West Bengal. The physiographic division, resources, population and regional issues.</p> <p>CO26.3. An idea to show the monthly temperature and rainfall</p>

				<p>graphs.</p> <p>CO26.4. Be able to learn the crop combination, annual trends of production over two decades and composite index.</p>
--	--	--	--	--

Programmes Specific Outcomes (PSO): Geography

PSO1: Adequate the knowledge of geomorphological and geotectonic processes and their formation.

PSO2: Brief the concept of ancient and contemporary geographical thought and its impact on modern science.

PSO3: Prepare a map by using GIS and modern geographical map making techniques.

PSO4: Gain knowledge of surveying and leveling of fields by using prismatic compass, dumpy level and theodolite and map projection skill will help them to be a good cartographer.

PSO5: Different type of thematic mapping with statistical techniques will help the students for grow their higher learning and research ability.

PSO6: Evaluate and apply the geographic techniques and related theories used to analyse and build a advance geographic concepts.

PSO7: Knowledge of weather forecasting with the help of weather symbols, codes and weather data.

PSO8: Test of soil samples and determination of nutritional status of the identified soil will help them in agricultural practice.

Programme Outcome (PO): Geography (Honours)

PO1. Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.

PO2. Effective Communication: Able to communicate geographic information by written, oral, graphical and quantitative outlets.

PO3. Social Interaction: Enhance their power of social interaction and ability of observation through field work experience where they find out social, economical and ecological problems of a locality.

PO4. Effective Citizenship: Demonstrate empathic social concern and equity centred national development and ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO6. Environment and Sustainability: Understand the relationship of man and environment and gain knowledge about human geography and correlate it with their everyday life.

PO7. Laboratory Skills: Apply scientific thinking, research design, interpretation and documentation of laboratory experiments. Understand theoretical concepts of instruments that are commonly used in most geographical fields as well as interpret and use data generated in geographical analyses.

PO8. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long sustainable development.

Mapping of PO and CO:

PO1. Critical thinking	PO2. Effective Communication	PO3. Social interaction	PO4. Effective Citizenship	PO5. Ethics	PO6. Environmental Awareness	PO7. Laboratory skills	PO8. Self-directed and Life-long learning
CO2	CO3	CO3	CO2	CO7	CO1	CO1	CO1
CO4	CO6	CO5	CO3	CO8	CO3	CO2	CO2
CO7	CO8	CO6	CO4	CO9	CO5	CO3	CO3
CO11	CO9	CO8	CO7	CO14	CO6	CO4	CO4
CO15	CO10	CO9	CO8	CO15	CO8	CO5	CO5
CO16	CO11	CO10	CO9	CO18	CO9	CO6	CO6
CO21	CO13	CO11	CO10		CO10	CO7	CO7
CO22	CO14	CO13	CO11		CO11	CO10	CO10
CO26	CO15	CO14	CO13		CO12	CO11	CO11
	CO19	CO15	CO14		CO13	CO12	CO12
	CO20	CO19	CO15		CO14	CO15	CO15
	CO23	CO20	CO16		CO15	CO16	CO16
	CO25	CO23	CO19		CO17	CO17	CO17
		CO25	CO20		CO20	CO18	CO18
		CO26	CO22		CO22	CO19	CO19
			CO23		CO23	CO20	CO20
			CO24		CO24	CO21	CO21
			CO25			CO22	CO22
			CO26			CO23	CO23
						CO24	CO24
						CO25	CO25
						CO26	CO26

COURSE OUTCOMES OF
GEOGRAPHY GENERAL (B.A. &B.SC)
UNDER CBCS

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 weight age 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 under graduate programme. Keeping this in mind and in tune with the changing nature of Geography, adequate emphasis is rendered on applied aspects of the subjects has emerging techniques of mapping and field-based data generation. The syllabus emphasizes 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.

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-3/5-01-TH–

Coastal Management GEO-G-SEC-A-3/5-

02-TH– Forest and Wildlife

Management

GEO-G-SEC-B-4/6-03-TH– Rural Development

GEO-G-SEC-B-4/6-04-TH– Sustainable Development

COURSE OUTCOMES

[General]

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-1-01Th+P	Physical Geography	4+2=6	<ul style="list-style-type: none">• 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.• Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms.• Understanding crustal mobility and tectonics; with special emphasis on their role in landform development• Analyze the concepts of Hydrology and Oceanography• Emphasizing the significance of ground water QUALITY and its circulation• Evaluate the role of the global hydrological cycle.• Studying the behavior and characteristics of the global oceans.• Realize the importance of water conservation.• Identify marine resources and characteristics of ocean waters.• Interpret hydrological and rainfall dispersion graphs and diagrams.• Identification of rocks and minerals.• Acquire knowledge about Toposheet. Drawing different types of profile. Identification different types of drainage pattern and channel features.

CC-2-02Th+P	Environmental Geography	4+2=6	<ul style="list-style-type: none">• Understand the elements of weather and climate, different atmospheric phenomena and climate • Learn to associate climate with other environmental and human issues. Approaches to climate classification.• To analyze the dynamics of the Earth's atmosphere and global climate. Assessing the role of man in global climate change. <p><input type="checkbox"/> Have knowledge about the character and profile of different soil types.</p>
-------------	-------------------------	-------	--

			<ul style="list-style-type: none"> □ Understand the impact of man as an active agent of soil transformation, erosion and degradation. □ 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. ● Interpretation daily Weather maps of India. ● Construction and interpretation Hythergraph, Climograph, and Wind rose. ● Determination soil types by using ternary diagram. ● Preparation of Biodiversity register.
CC-3-03Th+P	Human Geography	4+2=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. □ Analyze the factors of location of agriculture and industries. □ Understand the evolution of varied types of economic activities. ● 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. ● Understand the scope and content of cultural geography ● 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 Urban and Rural settlements- Definition, nature and characteristics ● Map and interpret data on occupational structure, time series, arithmetic growth rate. ● Analyze nearest neighbour by top sheet.

<p>CC-4-04Th+P</p>	<p>Cartography</p>	<p>4+2=6</p>	<ul style="list-style-type: none"> • Comprehend the concept of scales and representation of data through cartograms. • Develop an idea about different types of thematic mapping techniques. • Have knowledge of the principles of remote sensing, sensor resolutions and image referencings schemes. • Understand and prepare different kinds of maps. • Recognize basic themes of mapmaking. <p>Development of observations skills.</p> <ul style="list-style-type: none"> • Interpret satellite imagery and understand the preparation of false color composites from them. • Develop some specific Projections.

COURSE OUTCOMES

[DISCIPLINE SPECIFIC ELECTIVES]

Course Code	Course Title	Credits	Course Outcomes
GEO-G-DSE-A-5-01-TH+P	Regional Development	4+2=6	<ul style="list-style-type: none"> <input type="checkbox"/> Understand and identify regions as an integral part of geographical study. <input type="checkbox"/> Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development. <input type="checkbox"/> Analyzing the concept of regions and regionalization. <input type="checkbox"/> Studying typical physiographic, planning, arid and biotic regions of India. Understanding the detailed geography of India. ● 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 and also delineation of functional regions. ● Gain knowledge about measuring inequality by <ul style="list-style-type: none"> <input type="checkbox"/> Location Quotient, and also measuring regional inequality by Lorenz curve. <input type="checkbox"/> Preparation of Z-Score.
			<ul style="list-style-type: none"> ● To understand about the Population scenario of the world and the irrelated problems. ● To know about the various population characteristics and related population theories.

GEO-G- DSE-B-6- 04 T+P	Population Geography	4+2=6	<ul style="list-style-type: none"> ● It helps the student to understand the rural urban population structure and their various issues. ● To understand about the morphology of the various settlement pattern. ● It helps student to understand the various settlement types and their characteristics.

COURSEOUTCOMES

[SKILL ENHANCEMENTELECTIVES]

Course Code	Course Title	Credits	CourseOutcomes
GEO-G-SEC-A-3/5-02-TH	Forest and Wildlife Management	2	<ul style="list-style-type: none">• Understand concepts of forest management planning at both the stand and estate level for strategic, tactical and operational planning.• Students will be competent in basic forest management principles and evaluation of forest stands for health, wildlife habitat and lumber use.• Students will be able to apply knowledge to solve problems related to wildlife conservation and management.• Students will have a greater knowledge of how wildlife conservation and management relates to the economy and environment, both currently and in the future.• Students will be able to find detailed information on a topic from print as well as online information sources.• Students will be able to critically evaluate current events and public information related to wildlife conservation and management as being scientifically-based or opinion-based and contribute to the knowledge base of information.

GEO-G- SEC-B- 4/6-03- TH	Rural Development	2	<ul style="list-style-type: none">● RuralDevelopment:Concept,basicelements,measuresoflevelofruraldevelopment.● Paradigms of rural development: Gandhian approach torural development.● Area based approach to rural development: Droughtprone area programmes, PMGSY, SJSY, MNREGA, JanDhanYojana.● RuralGovernance:PanchayatiRajSystemandruraldevelopmentpoliciesandProgrammesinIndia.
-----------------------------------	----------------------	---	--
