

COURSE OUTCOME

B.A/B.SC CBCS (REGULAR HG/RC/SEC) GEOGRAPHY

SL NO	SEMESTER	COURSE NAME & CODE	COURSE OUTCOME	UNIT/CHAPTER	BLOOM TAXONOMY LEVEL
1.	First	Physical Geography GGY -HG-1016 GGY -RC-1016	Understanding of principles and concepts in Geomorphology. Enrichment of Knowledge of Glacial, Aeolian & Fluvial processes. Besides application of geomorphic concept in the field & practical utility while carrying out geomorphic research.	Physical Geography – Definition and Scope, Components of Earth System	Understand, Remember
				Atmosphere – Composition and the vertical structure, Heat Balance, Global Circulation Pattern, Monsoon, Koppen’s Climatic Classification	Understand, Remember
				Lithosphere–Internal Structure of Earth based on Seismic Evidence	Understand, Remember
				Endogenetic and Exogenetic processes, Works of River, Fluvial Cycle of Erosion – Davis	Understand, Remember
				Hydrosphere: hydrological cycle, ocean bottom relief features, oceanic deposits, tides and currents	Understand, Remember
				Relief representation from the topographical sheet (v-shaped valley, u-shaped valley, conical hill, cliff, uniform slope)	Understand, Remember, Apply
				Profile Drawing (Serial and superimposed)	Understand, Remember, Apply
				Rainfall-Temperature Graph, Climograph and Hythergraph	Understand, Remember, Apply
				Hypsometric and bathymetric curve	Understand, Remember, Apply

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2.	Second	Human Geography GGY-HG-2016 GGY-RC-2016	To enhance the students ability to understand the human society, human behavior in geographical perspectives. Understand the natural environment and human interaction.	Field of human geography: meaning, scope and importance	Understand, Remember
				Concepts of man-environment relationship: Determinism and Possibilism	Understand, Remember
				Impact of environment on man; impact of man on environment; population growth and environmental changes; house types in different environmental conditions	Understand, Remember
				Global patterns of racial, religious and linguistic composition of population	Understand, Remember
				Origin, growth and characteristics of rural and urban settlements; Patterns of rural settlements; Patterns of urbanization in India and N.E. India	Understand, Remember
				Traditional house types of selected ethnic groups of N.E. India and India	Understand, Remember, Apply
				Trend of population growth in the world in relation to five most populous countries of the world using line graph.	Understand, Remember, Apply
				Religious composition of population in the world and three most populous countries of the world using pie-graph	Understand, Remember, Apply
				Spatial patterns of urban population in Assam and N.E. India at state level through choropleth map	Understand, Remember, Apply
Drawing of major rural settlement types/patterns; Morphological diagram of a village and a town (preferably based on student's own village and town)	Understand, Remember, Apply				

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3.	Third	Economic Geography GGY-HG-3016 GGY-RC-3016	Knowledge about location, distribution & organization of economic activities in different spatial scale, as well as understanding man's	Meaning, scope of Economic Geography	Understand, Remember
				Economic activity: meaning and classification; Production system: Role of land, labour and capital; Resource: Concept and classification	Understand, Remember
				Agriculture: Factors influencing agriculture; types of agriculture;	Understand,

			activities, productivity in different geographic situations.	Factors influencing cultivation of wheat, rice and tea, and their distribution and production in the world	Remember
			Understanding different farming techniques & modernization of agriculture, along with the practical utility.	Manufacturing: Factors influencing industrial location; types of industry; Factors, distribution and production of iron and steel and cotton textile industry in the world	Understand, Remember, Analyse
				Transport system: Modes of transport, factors influencing transport development and role of transport in resource mobilization and industrial development	Understand, Remember
				Trade: Factors influencing trade; Trade relations of India with the countries like Bhutan, Nepal and Bangladesh	Understand, Remember
				Trend of rice, wheat and iron & steel production in the world/India since 1960 using moving average method	Understand, Remember, Apply
				Trend of production of wheat, rice, maize and barley in the world/India since 1960 using Band-graph	Understand, Remember, Apply
				Trend of balance of trade relations (export and import value) of India with Bangladesh, Nepal and Bhutan in respect of major commodities since 1990 using Bar-graph	Understand, Remember, Apply
				Regional variation in fertilizer consumption and agricultural productivity in rice, wheat and barley in selected countries of the world using Bar-graph	Understand, Remember, Apply
				Inter-state and Inter-nation volume of movement of selected commodities through flow cartogram	Understand, Remember, Apply

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4.	Third	Thematic Cartography GGY-SE-3024	Develop the Skills of mapping techniques as well as different utilities in specialized needs.	Thematic cartography: meaning and importance	Understand, Remember
				Thematic Mapping: Principles and techniques of representation of physical and human geographic data (point, line, polygon)	Understand, Remember
				Concepts and principles of cartographic overlay and mapping	Understand, Remember
			Understanding the principles of Aerial photography & Satellite imageries.	Concept of base map; Types of thematic map; map reading; map design, layout and typography	Understand, Remember
				Techniques of interpretation of Topographical maps, satellite imageries and aerial photographs for thematic mapping	Understand, Remember
				Preparation of an administrative/physical map of India containing necessary map elements using appropriate typography.	Understand, Remember,

			data presentation.		Apply
				Preparation of thematic maps for representing human geographic data using choropleth, isopleth, dot, sphere and proportionate circle techniques.	Understand, Remember, Apply
				Interpretation of topographical maps for preparation of thematic maps through overlay method (taking point, line and area layers) to show relationship between relief and agriculture; and relief, drainage and settlements.	Understand, Remember, Apply
				Locational accessibility mapping based on travel time through isochronic cartogram.	Understand, Remember, Apply
				Preparation of landuse / land cover map through visual interpretation of satellite imagery using appropriate classification scheme.	Understand, Remember, Apply

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5.	Fourth	Geography of India with Special Reference to N.E. India GGY-HG-4016 GGY-RC-4016	Development of a better spatial perspective of physical & socio cultural aspects of India & NE India. These have both utilitarian & applied aspects in broader contexts.	India's location and its significance; administrative divisions	Understand, Remember
				Physical setting: Major Physiographic Regions and their Characteristics; Drainage System (Himalayan and Peninsular)	Understand, Remember
				Climate: Seasonal Weather Characteristics; Climatic Divisions; Indian Monsoon (mechanism and characteristics)	Understand, Remember
				Population Growth and distribution; Characteristics and Composition of population (rural-urban, age, sex, occupational, literacy and religious), Population Policies of India	Understand, Remember
				Agriculture: Environmental, Technological and Institutional Factors affecting Indian Agriculture; Distribution and Production of Rice, Wheat and Tea; Agro Climatic Zones; Food Security	Understand, Remember
				Distribution and characteristics/potential of Natural Resources: Soil, Vegetation, Water, Mineral Resources (Coal, Petroleum and Iron ore)	Understand, Remember
				Factors influencing Industrial development in the country; Industrial Regions and their characteristics; Industrial Policies in India; Distribution and production patterns of iron and steel and cotton textile	Understand, Remember
				Trend of population growth and growth rates in India and N.E. India/Assam since 1901 using Census of India data (Source: censusindia.gov.in)	Understand, Remember, Apply
				Choropleth mapping to show spatial variation in decennial population growth rate in India /N E India/Assam	Understand, Remember,

					Apply
				Spatial variation in the patterns of religious composition of population in India and Social composition of population (SC, ST and General) in N.E. India using pie-graph	Understand, Remember, Apply
				Trend of food grains production (rice, wheat, maize, barley, jowar and bajra) in India since 1950-51 using band-graph	Understand, Remember, Apply
				Map showing distribution of major tribal groups in North-East India	Understand, Remember, Apply
				Field Report: Preparation of field report based on field study through observational knowledge about the geographical personality of any part of India/N.E. India/Assam under the guidance of teacher(s)	Understand, Remember, Apply Preparation of observational Field study report

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6.	Fourth	Advanced Statistical Techniques for Spatial Analysis GGY-SE-4014	Having detailed understanding of advanced statistical method and used for analyzing different geographical data.	Statistics and Geography: Role of statistics in geographical studies; Nature of geographical data and selection of statistical techniques for spatial analysis (Basic understanding)	Understand, Remember
				Application of the measures of central tendency (mean, median, mode and weighted mean) and dispersion (standard deviation, coefficient of variation, coefficient of skewness and standard distance) in geographical data analysis and spatial distribution pattern analysis.	Understand, Remember, Apply
				Application of probability distributions (Normal, poisson and binomial) in understanding various geographical phenomena; Characteristics / Properties of normal distribution	Understand, Remember
				Meaning and importance of sampling in geographical studies; Types of sampling (probability and non-probability sampling) and their relative merits and demerits; Concept of large and small samples	Understand, Remember
				Correlation and regression analysis in geography: Rank correlation and product-moment correlation coefficient; Linear regression and regression residuals; Concept of multiple correlation and regression.	Understand, Remember

				Introduction to the concept and application of Location quotient; Disparity or Differential index; Nearest Neighbour Analysis; Data standardization through ranking method for computation of composite score.	Understand, Remember, Apply
				Setting of hypothetical data of a geographical phenomenon for normal, positively skewed and negatively skewed distributions, calculation of mean, median, mode and coefficient of skewness, and representation of the positions of mean, median and mode in the respective frequency distribution curves.	Understand, Remember, Apply
				Graphical representation of median and mode for a given set of grouped data of a geographical attribute.	Understand, Remember, Apply
				Determination of the spatial mean centre(s) of population /urban population in Assam/ N.E. India.	Understand, Remember, Apply
				Computation of correlation coefficient (both rank and product-moment), fitting of regression line of Y on X and preparation of regression residual map for a set of meaningful bi-variate geographical data of Assam/N.E. India/India.	Understand, Remember, Apply
				Analysis of appropriate geographical data for computation/representation of LQ, gender disparity in literacy or work participation, and composite scores of socio-economic development (ranking technique). Statistical Software Package (SPSS, MS Excel, R, etc.) may also be used for practice.	Understand, Remember, Apply

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7.	Fifth	Environmental Geography and Disaster Management GGY-RE-5016	Better understanding of the surrounding environment.	Environmental Geography: Nature, Scope and Significance	Understand, Remember
				Human-Environment Relationships – Historical progression; Adaptation in different Biomes	Understand, Remember
			Knowledge of different environmental issues from local to global perspectives.	Major Global Environmental Problems: Pollution, Deforestation, Desertification, Global Warming and Bio-Depletion	Understand, Remember, Evaluate
				Meaning of Hazard, Disaster, Risk and Vulnerability; Types of hazard/disaster (Natural and Man-made)	Understand, Remember, Evaluate
			Increasing awareness along with knowledge of ways to cope up to adversities and paving	Disaster Management Cycle and Phases: Prevention, Preparedness, Response, Rehabilitation, Reconstruction and Mitigation	Understand, Analysis
				Major Hazards and Disasters, and their Management: Flood,	Understand,

			the ways to sustainable development.	Earthquake, Wildfire, and Chemical and Nuclear explosions	Remember, Evaluate
				National Environmental Policy and National Disaster Management Plan: Environmental Protection Act 1986 and Disaster Management Act 2005	Understand, Remember
				Exploring satellite imageries and toposheets to observe bank line change of the Brahmaputra river from any selected stretch in three different time periods and preparation of map the reform (Goalpara, Palasbari, Nimatighat, etc.) Satellite images can be downloaded from https://earthexplorer.usgs.gov/ Survey of India toposheets can be downloaded freely from https://soinakshe.uk.gov.in/mtr	Understand, Remember, Apply
				Mapping of major wetlands in a district and computation of shape and size(area) for their classification	Understand, Remember, Apply
				Preparation of a map of a nearby wetland and to identify the changes in dimension, water level and encroachment it faced during the last one decade. Presentation of data in tabular form along with the map (field-based)	Understand, Remember, Apply
				Preparation of a long-term precipitation time series curve for any selected station of N.E. India using moving average method by downloading the annual rainfall data for any district/station of Assam for at least 30 years from the portal. https://www.indiawaterportal.org/met_data/ . Students can also explore the web portal https://mausam.imd.gov.in/ to get an idea of different types of weather data in India and their historical and present distribution	Understand, Remember, Apply
				Drawing of a diagram of disaster management cycle with reference to some disasters (flood and earthquake) in North-East India and to indicate the activities associated with each step	Understand, Remember, Apply
				Drawing of a map of Assam showing the major fault lines thereon. Also to plot at least 50 epicentres in last few years and to explain the areas of their concentration with the help of Bhookamp app	Understand, Remember, Apply
				Preparation of a disaster vulnerability map of Assam/ N.E. India based on data of natural disasters (Flood/earthquake/landslide/bank erosion) with respect to their occurrence and frequency in different areas	Understand, Remember, Apply

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8.	Fifth	Population and Settlement Geography GGY-GE-5016	The course will enable the students to develop an understanding of the influence of population trends on the various aspects of human life – social, cultural, political and economic Understanding settlement both rural & urban contexts, to prepare sustainable environment	Defining the field of population geography: meaning and scope; its relation with demography	Understand, Remember
				Sources of population data; Perspectives on Census of India publications – Primary Census Abstract, District Census Hand-Book, Sample Registration System, etc	Understand, Remember
				Distribution and density of population: Factors influencing population distribution and density; global pattern of population distribution	Understand, Remember
				Population Growth: Trend of global population growth; components of population growth–fertility, mortality and migration; push and pull factors of migration; spatial variations in population growth in the world	Understand, Remember
				Theories of population growth: Malthusian Theory and Demographic Transition Theory	Understand, Remember
				Population composition and associated characteristic patterns in global contexts: Age-Sex Composition; Rural-Urban Composition; Population ageing	Understand, Remember
				Defining the field of settlement of geography: Meaning and scope	Understand, Remember
				Rural and urban settlements: Factors influencing distribution pattern of settlements; Types of rural settlements; Morphology and Characteristics of rural and urban settlements	Understand, Remember
				Concept of settlement hierarchy and urban fringe; Christaller's Central Place Theory	Understand, Remember
				Trend of population growth in Assam/N.E. India through line graph; Calculation and graphical representation of trend of decadal growth rates of population in Assam/N.E. India/India	Understand, Remember, Apply
				Choropleth map to show spatial pattern of decadal variation in population growth in Assam/N.E. India/India	Understand, Remember, Apply
				Choropleth map showing spatial pattern of population density in Assam/India	Understand, Remember, Apply
				Map showing spatial variation in social/religious/rural-urban composition of population in Assam/N.E. India using pie-graph	Understand, Remember, Apply
Choropleth map showing spatial pattern of level of urbanization in Assam/N.E. India	Understand, Remember,				

					Apply
				Flow cartogram showing direction and volume of migration into Assam/N.E. India from different parts of India	Understand, Remember, Apply
				Map showing distribution of towns and their varied population size with spheres in Assam/N.E. India	Understand, Remember, Apply

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9.	Fifth	Geography of Tourism GGY-SE-5024	To understand the importance of tourism for development. Development of better spatial perspective of tourism industry at different geographical scale.	Geography of Tourism: Nature and scope; Concepts and issues of tourism; Recreation and leisure inter-relations; Robinson's geographical parameters of tourism	Understand, Remember
				Factors and types of tourism: Nature tourism, Cultural tourism, Medical tourism, Adventure tourism, Pilgrimage, etc	Understand, Remember
				Recent Trends in tourism: International and Domestic (India); Eco-Tourism, Sustainable Tourism	Understand, Remember
				Impact of tourism on economy, environment and society	Understand, Remember
				Tourism development in India: Tourism infrastructures; Case studies of tourism development in Himalaya, Desert and North-East India with special reference to Assam; National tourism policies and prospects	Understand, Remember
				Trend of growth of tourist arrivals in the world/India/Assam since 1960 using Moving average method and least squares method	Understand, Remember
				Trend of tourist arrivals in the north-eastern states of India and few top ranking tourist arriving states of India since 1980 using Band-graph	Understand, Remember, Apply
				Line Graph showing pattern of tourist arrival (Domestic and International) in relation to rainfall and temperature in a year for selected tourist spots of North-East India / Assam	Understand, Remember, Apply
				Spatial Patterns of Seasonal variation (Spring, Summer, Autumn and Winter) in tourist arrival in capital cities of North-East Indian States using Pie diagram and Bar Diagram	Understand, Remember, Apply
				Preparation of a transport connectivity (road, railway and air) map of Assam and North East India for major tourist destinations	Understand, Remember, Apply
				Preparation of a tourist map of North-East India showing locations of important national parks and wildlife sanctuaries from tourism potential perspectives (indicating the major	Understand, Remember, Apply

			highlights of the respective destinations including distance from Guwahati city within box)	
			Preparation of a tourist guide map of North-East India showing location of major tourist destinations and road connectivity routes from Guwahati city	Understand, Remember, Apply

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10.	Sixth	Social and Political Geography GGY-RE-6016	Understanding different social & political components of a man-made environment. Knowledge about social components like language, religion, ethnicity & political components like boundaries, frontiers.	Social Geography: Meaning, Scope and approaches of study	Understand, Remember
				Concept and types of social space and social groups	Understand, Remember
				Social Well-being: Concept and components: Housing, health and education; Concept of human development and its measurements	Understand, Remember
				Contribution of race, religion, language and ethnicity in promoting diversity in India	Understand, Remember
				Social geographies of inclusion and exclusion: Basic concept and characteristics of caste system, slums, social crime and gender identity	Understand, Remember
				Political Geography: Nature, scope and approaches to its study	Understand, Remember
				Concept of state, nation, and nation-state; Attributes of state	Understand, Remember
				Concept of frontiers and boundaries; boundary problems with reference to India and North East India; Concept of buffer zones	Understand, Remember
				Concept of Geopolitics; Mackinder's Heartland Theory	Understand, Remember
				Mapping the patterns of human development in India and Assam using HDI	Understand, Remember, Apply
				Construction of Ternary diagram representing social composition of population in India /North- East India	Understand, Remember, Apply
				Construction of Ternary diagram representing social composition of population in India /North- East India	Understand, Remember, Apply
Sex disparity in literacy in India /North-East India using a simple Index	Understand, Remember, Apply				

				Computation of Shape Index for selected states and countries	Understand, Remember, Apply
				Construction of a map of India/North-East India highlighting the major inter-state boundary conflict zones	Understand, Remember, Apply
				Reorganization of states of North-East India during Pre and Post Independence periods (up to the present)	Understand, Remember, Apply

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11.	Sixth	Environmental Impact Assessment GGY-SE-6024	Understanding different components of natural & man-made environment. Knowledge about environmental issues and to evaluate the adverse impact. Also to find out the possible remedial measures.	Nature and types of environmental impacts; Meaning, scope and nature of Environmental Impact Assessment (EIA)	Understand, Remember
				Origin and development of Environmental Impact Assessment; History of EIA in India; Current issues of environmental impact assessment	Understand, Remember
				Screening procedures: Scoping and environmental baseline assessment; Consideration of alternatives, baseline formulation and parameter identification, and impact identification	Understand, Remember
				Predicting Environmental Impacts and determining impact significance: Impact prediction, evaluation and mitigation	Understand, Remember
				Managing project impacts-post decision monitoring: Participation (public hearing), presentation and review, Monitoring and auditing of EIA	Understand, Remember
				Legal, Policy and Regulatory framework of environmental impact assessment in India; ESPOO convention, General case studies of EIA (Wetlands in urban environment, highway Construction, brick kilns, big dam, etc.).	Understand, Remember
				Project Report Preparation and Evaluation: The students will visit a nearby industry/development project/road construction project/ecologically sensitive area to make assessment of nature and magnitude environmental impacts in the respective area under the guidance of teacher(s) concerned and to prepare an environmental impact analysis report thereof	Understand, Remember & Preparation of field study report