

DEPARTMENT OF GEOGRAPHY
COURSE OBJECTIVES AND OUTCOMES
CBCS SYSTEM

SEMESTER 1

Course title	Title	Credits	Course objectives	Course outcome
Geo-A- Cc1-01 - TH	Geotectonics and Geomorphology	4	<p>1. Comprehend the theories and concepts of Geotectonic and Geomorphology.</p> <p>2. Will understand the plate tectonics, isostasy and hotspots of the world.</p> <p>3. Understand fold and fault and their correlations with landforms.</p> <p>4. Will comprehend and be able to distinguish between fluvial, glacial and desert landscape</p>	<p>1. Will have the skill of knowing the concept of geotectonics and geomorphology</p> <p>2. Will be able to identify folded and faulted structure.</p> <p>3. Will be able to recognize different types of landscapes</p>
Geo-A- Cc1-01P	Geotectonics and geomorphology lab	2	<p>1. Will be able to understand the hypsometric curve and will be able to derive the hypsometric integer and learn its application.</p> <p>2. Will learn the methods of how to do dissection index, ruggedness index, drainage density map, slope map etc from topo sheet of a plateau region.</p>	<p>1. Will have the skill to draw a hypsometric curve and calculate hypsometric integer.</p> <p>2. Will also be able to say type of landscape from the hypsometric integer.</p> <p>3. Will be able to draw from toposheet the different types of cartograms and profiles.</p> <p>4. They will also be able to compute and draw drainage density</p>

SEMESTER 1

Course title	Title	Credits	Course objectives	Course outcome
GEO-A-CC-1-02-TH	Cartographic techniques	4	<p>1. Will know the concept and classification of scales.</p> <p>2. Will know about bearings and map projections and utm projection.</p> <p>3. Will be able to use cartograms for the representation of data.</p>	<p>1. Will know the skill of drawing different types of scales.</p> <p>2. Will have the skill to draw linear and angular systems of measurement.</p> <p>3. Will be using isopleth, choropleth and chorochromatic techniques to represent data.</p>
GEO-A-CC-1-02-P	Cartographic techniques lab	2	<p>1. Will be knowing the graphical construction of scales.</p> <p>Will be using cartograms to represent thematic maps.</p>	<p>1. Will know the skill of drawing different types of scales.</p> <p>2. Will be using chorochromatic techniques for representing land use maps.</p> <p>3. Will have the skill to draw different types of projections.</p>

SEMESTER 2

Course title	Title	Credits	Course objectives	Course outcome
GEO –A- CC-2 -03- TH	Human geography	4	<ol style="list-style-type: none"> 1. Will know the elements of human geography 2. Will know the human adaptation to different ecosystems. 3. Will know the different types of settlement ,both rural and urban. 	<ol style="list-style-type: none"> 1. Will have the skill to know about the difference between the country level religious composition. 2. Will be comprehending about types of age sex pyramids.s region. 3. Will also have the skill to know about nearest neighbor analysis . .
GEO –A- CC-2 -04- TH	Thematic mapping and surveying	4	<ol style="list-style-type: none"> 1. Will learn the concept of logarithmic ,natural and scales . 2. Will also comprehend concept of diagrammatic representation of data. 3. Learn to prepare and interpret geological maps, weather maps, land use and land cover maps and socio economic maps . 4. Will also learn about the National agencies like GSI, NATMO, NBSSLUP, BHUVAN, NRSG and NHO. 5. Will also learn the basic concept of surveying and how to use surveying instruments like prismatic compass, dumpy level theodolite and abney level and laser distance measurer. 	<ol style="list-style-type: none"> 1. Will learn drawing of different scales and cartograms. 2. Will also learn about interpretation of weather maps ,land use and land cover maps. 3. Will learn interpretation and drawing of geologic profile with different structures . 4. Will learn about the skill of learning and using different survey instruments like aprismatic compass, theodolite and a dumpy level, abney levels and laser distance measurer.

GEO –A- CC-2 -03-P	Human geography LAB	2	<p>1. Will know about the elements of human geography</p> <p>2. Will know the human adaptation to different ecosystems.</p> <p>3. Will know the different types of settlement ,both rural and urban</p>	<p>1. Will be able to know about spatial variation in religious composition of two countries</p> <p>2. Will know about nearest neighbor analysis</p> <p>3. Will have the skill to measure arithmetic growth rate of population.</p> <p>.</p>
GEO –A- CC-2 -04-P	Thematic mapping and surveying LAB	2	<p>1. Will be able to know about prismatic compass.</p> <p>2. knowing the mechanism to do relief profile by dumpy level.</p> <p>3. Will be able to do geological map..</p>	<p>1. Will be able to draw a plan using the prismatic compass.</p> <p>2. Will be able to find height by using a theodolite.</p> <p>Will be skilled to interpret and draw a geologic profile .</p>

SEMESTER 3

Course title	Title	Credits	Course objectives	Course outcome
Geo –A- cc3- 05-TH	CLIMAT OLOGY	<u>4</u>	<p>1. will know about the nature, composition, and layering of atmosphere .</p> <p>2. Will comprehend temperature horizontal and vertical distribution.</p> <p>3. Will understand overview of climate change.</p> <p>4. Understand about</p>	<p><u>1.</u> Will have the skill to measure humidity, temperature, rainfall and wind,</p> <p>2. Will be able to draw hythergraph, climograph and wind rose diagram</p>

			mechanism of precipitation. ,airmass,fronts and frontogenesis. .	
Geo –A- cc3- 05-P	CLIMAT OLOGY <u>LAB</u>	2	1.Will have the knowledge of measuring weather elements by using analogue instruments. 2.Will know about the interpretation of daily weather maps. 3.Will know the construction of a climograph ,hythergraph.	1Will have the skill of measuring different weather elements. 2.Will have the skill of interpreting daily weather maps. 3.Will be able to draw and interpret wind rose.
Geo –A- cc3- 06-TH	Hydrology & Oceanography	4	1.Will know about the systems approach in hydrology and also know about global hydrological scale . 2. Will know about major relief features of the ocean floor . 3.Will know about tides,ocean circulation,waves and coral reefs .	1. Will know the construction and interpretation of rating curves,hydrographs and unit hydrographs. <u>2.</u> Will be able to draw climatic water budget and ergograph. 3Will be able to construct theissen polygon.
Geo –A- cc3- 06-P	Hydrology & Oceanography lab	2	1.Will be knowing about rating curves. 2.will know monthly rainfall dispersion diagram. .Will know about theissen polygon.	1.WILL be able to draw rating curves,hydrographs and unit hydrographs. 2.Will be able to compute theissen polygon from rainfall data. 3.Will be able to draw and interpret water budget and ergograph.
Geo –A- cc3- 07-TH	Statistical methods in	4	1.Know about significance of statistic in	1.Will be able to compute about measures of central

	geography		<p>geography.</p> <p>2. Will also know about collection of data and preparation of statistical data table.</p> <p>3. Will know about measures of central tendency and association and correlation .</p>	<p>tendency.</p> <p>2. Will be able to compute ogive, normal probability .</p> <p>3. Will know how to find and draw regression and linear lines.</p>
Geo –A-cc3- 07-P	Statistical methods in geography lab	2	<p>1. Will know data matrix of an areal units.</p> <p>2. Will be able to draw a scatter diagram.</p> <p>3. Measures of central tendency can be computed.</p>	<p>1. Will be able to compute data matrix.</p> <p>2.</p> <p>Will be able to measure and draw mean, media, and more.</p> <p>3.</p> <p>WILL be capable of drawing regression line .</p>

SEMESTER 4

Course title	Title	Credits	Course objectives	Course outcome
Geo –A-cc4- 08-TH	Economic geography	4	<ul style="list-style-type: none"> • Will be able to comprehend the importance of Economic geography and will also learn the concept of economic man and theories of choice. • Will understand the factors for location of agriculture and industries. • Comprehend the evolution of varied type of economic activities. 	<ul style="list-style-type: none"> • Will be able to assess the significance of Economic Geography, the concept of economic man and theories of choice. • Has the skill to compute the statewise variations in occupational structure by pie graph. • Understand the transport network analysis by detour index and shortest path matrix. • Will be able to do time series analysis of industrial production

Geo –A- cc4- 08-P	Economic geography lab	2	<p>1. will interpret data on production and economic indices, and transport networks and flows.</p> <p>2. will comprehend state-wise variation in GDP</p> <p>3. will be able to analyze transport network</p>	<p>1. Map and interpret data on production, economic indices, transport network and flows.</p> <p>2. Will be using time series analysis for industrial production of west Bengal.</p> <p>3. will be using choropleth mapping to show state wise variation in GDP.</p>
Geo –A- cc4- 09-TH	Regional planning and developme nt	4	<ul style="list-style-type: none"> • Will be able to identify regions as an important part of geographical studies. • Comprehend the different type and scale of regions . • Will understand varied aspects of development and regional disparity to formulate a balanced development . • Understand and identify regions as an integral part of geographical study. • Recognize the types and scales of region and its specific plans. 	<p>1. will be able to delineate different type of regions</p> <p>2. will be able to measure inequality and regional disparity</p>
Geo –A- cc4- 09-P	Regional planning and developme nt lab	2	<p>1. Will be able to delineate formal and functional regions.</p> <p>2. will be able to measure inequality and regional disparity</p>	<p>1. will have the skill to use weighted index method and breaking point analysis for delineating formal and functional regions.</p> <p>2. Can measure inequality by location quotient.</p> <p>3. Can also measure</p>

				regional disparity by sopher index.
Geo –A- cc4- 10-TH	Soil and Bio geograph y	4	<ul style="list-style-type: none"> • Comprehend the character and soil profile of different soil types. • Will comprehend anthropogenic role in soil transformation, erosion and degradation... • Have knowledge about the character and profile of different soil types. <p>Understand the impact of man as an active agent of soil transformation, erosion and degradation.</p>	<ol style="list-style-type: none"> 1. Will be able to determine soil reaction and salinity by using field kit. 2. Will be able to draw and compute soil textural triangle 3. Will be using matrix method to draw plants specie diversity.
Geo –A- cc4- 10-P	Soil and Bio geograph y lab	2	<ul style="list-style-type: none"> • Will understand the definition of land capability and classify it. • Comprehend and classify different ecosystems. • Comprehend the importance of biogeochemical cycles. • Realize the negative impact of deforestation. • Different soil types with its Ph will be identified. • Recognize land capability and classify it. • Understand the varied ecosystems and classify them. 	<ol style="list-style-type: none"> 1. Will be using time series analysis of bio geography deta 2. Will be using matrix method to determine plants specie diversity. 3. Will be able to compute soil Ph and soil salinity.

			<ul style="list-style-type: none"> Recognize the significance of biogeochemical cycles and biodiversity. Comprehend the devastating impact of deforestation. <p>Identify soil types and derive their pH.</p>	
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SEMESTER 5

Course title	Title	Credits	Course objectives	Course outcome
GEO-A-CC- 5-11-TH	RESEARCH METHODOLOGY AND FIELDWORK	4	<ol style="list-style-type: none"> Know about research methodology in geography/. know about research problem,raw material and method. 3. Will know about post field tabulation . 	<ol style="list-style-type: none"> Will have the skill to identify the research problem. Will know about the technique of writing a scientific report. Will have the ability to select an area,field techniques and tools to write a field report.
GEO-A-CC- 5-11-P	RESEARCH METHODOLOGY AND FIELDWORK LAB	2	<ol style="list-style-type: none"> Each student will prepare a report based on primary data. Will be able to know about a specific problem on the basis of which study area will be selected. Will know of a plot to plot land use survey. 	<ol style="list-style-type: none"> Will be able to collect household socioeconomic data with the help of a questionnaire. Will be capable of conducting plot to plot land use survey and interpreting it. Photographs ,maps and diagrams will be used while writing the field report.
GEO-A-CC- 5-12-TH	REMOTE SENSING ,GIS ANS GNSS	4	<ol style="list-style-type: none"> Will know about types of satellites and sensors . Will know about the principles of image interpretation. Will know about gis data types and principle of 	<ol style="list-style-type: none"> Will be able to acquire waypoints of gnss and transferring it to gis. Will also be able to compute Way point from gnss receivers and exporting it to gis

			gns positioning and waypoints use of DEM.	database. 3. Will have the skill to digitize features of administrative boundaries .
GEO-A-CC- 5-12-P	REMOTE SENSING ,GIS ANS GNSS LAB	2	<ol style="list-style-type: none"> 1. Will be able to georeference and enhance the image 2. Will be capable of post classification analysis . 3. Will be capable of way point collection and buffer preparation. 	<ol style="list-style-type: none"> 1. Will be able to collect way points from gns receivers and transfer it to gis. 2. Will be able to digitize features and administrative boundaries. 3. Will be capable of data attachment overlay and preparation of a land use map.

SEMESTER 6

Course title	Title	Credits	Co.urse objectives	Course outcome
GEO-A-CC-6-13-TH	EVOLUTI ON OF GEOGRA PHICAL THOUGH T	4	<ol style="list-style-type: none"> 1. Will know about the development of pre modern geography . 2. Will be knowing about transition from cosmography to scientific geography .3 <p>Will know about evolution of critical geography and to post modernism</p>	<ol style="list-style-type: none"> 1. Will have the skill about the Changing perception of modern geography . 2. will be capable of knowing the voyabges of explorers . 3, Will be capable of doing a group presentation about any schools of geography.
GEO-A-CC-6-13-P	EVOLUTI ON OF GEOGRA PHICAL THOUGH T LAB	2	<ol style="list-style-type: none"> 1. Will be able to comprehend the changing perception of maps. 2. Will be ablke to understand the impacts of dark ages and the arab geographers. 3. Will be capable of a group <p>Presentation on any school of geographic</p>	<ol style="list-style-type: none"> 1. Will have the skill about the Changing perception of maps. 2. will be capable of mapping the voyages of Columbus ,Vasco de gama and Magellan and Thomas cook <p>Will be capable doing a group presentation on any school of . geographic thought</p>

			thought	
GEO-A-CC-6-14-TH	HAZARD MANAGEMENT	4	<p>Will be knowing the difference between hazard and disaster.</p> <p>2. Will know about hazard precautions, responses and aftermath.</p> <p>3. Will know about hazard specific studies of west Bengal.</p>	<p>1. Will be able to do a group presentation on particular hazards of west Bengal.</p> <p>2. Will also be capable of a group presentation on hazards of west Bengal.</p>
GEO-A-CC-6-14-P	HAZARD MANAGEMENT LAB	2	<p>1. Will be capable of group presentation on specific hazards in west Bengal.</p> <p>2. Will be knowing a preparedness plan</p>	<p>1. Will have the skill of presenting a group presentation on a specific topic of hazard in west Bengal.</p> <p>2. Will be capable of formulating a preparedness plan on a specific hazard of west Bengal.</p>

DISCIPLINE SPECIFIC ELECTIVES SEM-5 & SEM 6

Course title	Course name	credit	Course objectives	Course outcome
GEO-DSE-A-6-03-TH	ENVIRONMENTAL ISSUES IN GEOGRAPHY	4 CREDITS	<ol style="list-style-type: none">1. Will know about geographer's approach to environment and systems approach.2. Will know about ecosystems and their relation with habitats.3. Will know about and global initiatives for environmental objectives and environmental policies .4. Will know about EIA.5. Know about wetland and forest management in West Bengal.	<ol style="list-style-type: none">1. Will learn about geographer's approach to environment and systems approach.2. Will be knowing about different ecosystems and their habitat.3. Will know about different environmental policies and will be able to do EIA.

GEO- DSE- A-6- 03-P	ENVIRONMENTAL ISSUES IN GEOGRAPHY – LAB	2 CREDITS	<p>1. Will be able to prepare a questionnaire for survey on environmental problems .</p> <p>2. Will be able to prepare a checklist for EIA and do a quality assessment of soil using a field kit.</p> <p>3. Will be able to do changes in air quality on a multi seasonal basis and multi city or multi locational basis.</p>	<p>1. Will have the skill to prepare a questionnaire on environmental problems .</p> <p>2. Will have the skill to prepare an EIA and by using the soil kit and will be able to assess quality of soil and interpret the multi city, seasonal air quality.</p>
GEO- A- DSE- B-5-05 TH	Cultural and Settlement Geography	4 credits	<p>1. Will know the content of cultural and settlement Geography.</p> <p>2. Will know the terms cultural hearth and realm, cultural diffusion, diversity, technology and development.</p> <p>3. Will know about rural and urban geography , city region and conurbation.</p>	<p>1. Will be able to identify rural house types in different parts of india.</p> <p>2. Will be able to draw diagrams of urban models of morphology.</p>

GEO- A- DSE- B-5- 05-p	CULTURAL AND SETTLEMENT GEOGRAPHY lab	2 CREDITS.	<p>1. Will be able to map language distribution.</p> <p>2. Will have the skill to draw proportional circles to show housing distribution.</p> <p>3. Will be to identify rural settlements from Indian survey sheets.</p>	<p>1. Will have the skill to map language distribution</p> <p>2. Will have the skill to compute and draw the proportional circle showing cd block wise distribution of house holds in any district of west Bengal.</p> <p>3. Will be able to identify rural settlements from indian survey sheets.</p> <p>4. Will be able to do a social area analysis of a city.</p>

GEO- A- DSE- B-6-07 -TH	Urban geography	4	<ol style="list-style-type: none"> 1. Will know nature, scope and different approaches and trends in urban geography. 2. Will know origin of urban places in ancient, mediaval and modern perid . 3. Will know about urbanization and urban hierarchies. 4. Will know about ecological processes ,urban fringe, and city region. 5. wil know about policies of urbanization and urban changes in post liberalized period. 6. Wil also know about Case studies of Delhi, Kolkata and Chandigarh with reference to land use. 	<ol style="list-style-type: none"> 1. Will be able to compute rank size rule. 2. Will be able to compute compute state wise variation and trends of urbanization. 3. Will be using indian census to show temporal analysis of urban growth. 4. Will be able prepare urban land use and land cover map using satellite imageries.

SKILL ENHANCEMENT ELECTIVES FOR SEMESTER 3 & 4

Course title	Title	Credits	Course objectives	Course outcomes
GEO-A-SEC-A-3-02-TH	TOURISM MANAGEMENT	2 CREDITS	<ol style="list-style-type: none">1. Will know about the concepts and issues of tourism, recreation and leisure2. Use of information to plan destination and marketing tourism products.3. Will know tourism impact assessment.4. Will know about increasing global Tourism.	<ol style="list-style-type: none">1. Will be learning about types of tourism, also learn about and plan tourism products.2. Will be able to plan for tourism in india and plan for different budgets for case study sites in india.

<p>GEO-A- SECB-4-04- TH-</p>	<p>SUSTAINABLE DEVELOPMENT</p>	<p>2 CREDITS</p>	<p>1. Will learn about concept, historical background, components and limitations of sustainable development.</p> <p>2. Will learn about the linkages among sustainable development, environment and poverty.</p> <p>3. Will know about the global goals for sustainable development.</p>	<p>1. Will be knowing about the sustainable development and linkages among sustainable development.</p> <p>2. Will learn about the global goals for sustainable development.</p>
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