PROGRAMME OUTCOME, PROGRAMME SPECIFIC OUTCOME AND COURSE OUTCOME B. A/ B. Sc UNDER CCF, 2022

<u>DEPARTMENT OF GEOGRAPHY – UNDERGRADUATE COURSE (B. A/B. Sc)</u> <u>Under CCF, 2022</u>

PROGRAMME OUTCOME (PO)

- 1. Reflect critically upon the scope and evolution of the diverse discipline of Geography.
- 2. Recognize, synthesize and evaluate diverse sources of knowledge, arguments and approaches pertinent to exploring human-environment problems.
- 3. Explain societal relevance of geographical knowledge and apply it to real world human-environment issues.
- 4. Appreciate and reflect critically on the importance of holistic and interpretative human-environment perspectives.
- 5. Identify and address geographical questions using creativity and critical thought in diverse settings.

PROGRAMME SPECIFIC OUTCOME (PSO)

- 1. Acquire an understanding and appreciation of the relationship between Geography and culture.
- 2. Knowledge of geographic principles or the fundamental concepts of Geography.
- 3. Analyze the Earth as an integrated human-environment system by examining dynamic flows, interactions and exchanges at different spatial and temporal scales.
- 4. Understanding of how the physical environment, human societies and local and/or global economic systems are integrated to the principles of sustainable development.
- 5. Understanding of various theoretical and methodological approaches to both physical and human geography.

PROGRAMME OUTCOME, PROGRAMME SPECIFIC OUTCOME AND COURSE OUTCOME B. A/ B. Sc UNDER CCF, 2022

The course outcomes of the different papers offered are presented below. After completion of the course the student will be able to:

Course	Course Title	Credits	Course Outcomes
Code			
CC-01 Th + P (H&MD)	Physical Geography	3+1=4	Develop a working knowledge base of the fundamental concepts across various branches of Physical Geography.
CC-02 Th+ P	Human Geography	3+ 1 = 4	Comprehend the nature, scope and recent trends of human geography
			Understand the evolution of human societies
			Assess the significance of demographic transition
			Acquire knowledge about Urban and Rural settlements- Definition, nature and characteristics
			Acquire the skill to represent demographic data
CC-03 Th+ P	Geotectonics	3+ 1 = 4	Understand the significance of Plate Tectonics as the overarching paradigm of global tectonic landform studies.
			Comprehend the planet's geological evolution and the significance of dating techniques.
			 Quantitatively analyze tectonic activity from topographical maps.
			Identify rocks and minerals.
			Interpret underlying structure from geological maps.
CC-04 Th+ P	Economic Geography	3+ 1 = 4	 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.
			Map / prepare and interpret data on production, economic indices, ergograph and crop calendar
CC-05 Th+ P	Geomorphology	3+1=4	 Associate landform assemblages with geomorphic processes.
			Perceive the importance of processes in the shaping landforms.

			Understand the centrality of the concepts of space and time in geomorphology.
			Analyze the role of humans in landform development.
			Extract and interpret geomorphic information on relief and drainage from topographical maps.
CC-06 Th+ P	Climatology	3+ 1 = 4	Understand the elements of weather and climate, different atmospheric phenomena and climate change.
			Learn to associate climate with other environmental and human issues.
			Acquire the skill to measure weather elements using analogue instruments
			Prepare various climatic maps and charts and interpret them.
CC-07	Social	3+ 1 = 4	Understand fundamental social processes.
Th+ P	Geography		Appreciate the significance of caste and class as agents of social segregation and differentiation.
			Sensitive to contemporary social issues of gender, poverty, crime and marginalization.
			Assess the importance of social justice and security.
CC-08	Cartographic	3+ 1 = 4	Comprehend the coordinate systems
Th+ P	Techniques		Understand and acquire the skill to construct various projections
			Represent data and plot thematic maps
CC-09	Hydrology &	3+ 1 = 4	Evaluate the role of the global hydrological cycle.
Th+ P	Oceanography		Realize the importance and principles of water conservation.
			Understand the physical and chemical properties of ocean water
			Identify marine resources and characteristics of ocean waters.
			 Interpret hydrological and rainfall dispersion graphs and diagrams.
			•

CC-10 Th+ P	Cultural & Settlement	3+1=4	 Understand the scope and content of cultural geography
	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
			 Identify the cultural regions of India
			 Acquire knowledge about Rural settlements- Definition, nature and characteristics
			Analyze the morphology of rural settlements
			 Learn the rural house types, census categories of rural settlements and idea of social segregation
			 Learn the census definition and categories of urban settlements
			 Analyze the urban morphology models of Burgess, Hoyt, Harris and Ullman
			Differentiate between city-region and conurbation
CC-11	Hazard	3+ 1 = 4	Understand the approaches to study hazards
Th+ P	Management		 Assess the responses to hazards, resilience and capacity building.
			 Study specific hazards in West Bengal and India and analyze their causative factors, vulnerability, consequences and management
			Prepare a Hazard Project based on a case study
CC-12 Th+ P	Thematic Mapping &	3+1=4	 Comprehend the concept of scales and representation of data through cartograms.
	Surveying		 Prepare and interpret geological, socio-economic and land use & cover maps.
			 Learn the use of survey instruments.
CC-13 Th + P	Soil and Biogeography	3+ 1 = 4	Have knowledge about the character and profile of different soil types.

			 Understand the impact of man as an active agent of soil transformation, erosion and degradation.
			Recognize land capability and classify it.
			Understand the varied ecosystems and classify them.
			Recognize the significance of biogeochemical cycles and biodiversity.
			 Comprehend the devastating impact of deforestation.
			Identify soil types and derive their pH
			Determine and analyze Plant species diversity
CC-14 Th+ P	India & West Bengal	3+1=4	Identify the physiographic divisions with refence to tectonic provinces
			Comprehend the significance and impacts of Green revolution and white revolution
			Understand the regionalization of India
			Comprehend the pattern of industrialization
			 Acquire the skill of graphical representation of industrial data and composite index
CC-15 Th+ P	Remote Sensing, GIS and	3+ 1 = 4	Have knowledge of the principles of remote sensing, sensor resolutions and image referencing schemes.
	GNSS		 Interpret satellite imagery and understand the preparation of false colour composites from them.
			Apply GIS to the preparation of thematic maps.
			Understand and use GNSS.
CC-16 Th+ P	Philosophy of Geography	3+ 1 = 4	 Perceive the evolution of the philosophy of Geography.
			 Appreciate the contribution of the thinkers in Geography.
			 Understand the different schools of geographical thought.
CC-17 Th+ P	Resource Geography	3+ 1 = 4	 Understand the concept and classification of resources
			Understand the approaches to resource utilization
			Appreciate the significance of resources
	ı		

Analyze the problems of resource depletion with special reference to forests, water and fossil fuels Understand the concept of Sustainable Resource development Understand the distribution, utilization, problems and management of metallic and non-metallic mineral resources Analyze the contemporary energy crisis and assess the future scenario Understand the concept of Limits to Growth, resource sharing and sustainable use of resources CC-18 Environmental Issues in Geography Understand the geographer's approach to environmental studies Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project Learn to interpret air quality					
special reference to forests, water and fossil fuels Understand the concept of Sustainable Resource development Understand the distribution, utilization, problems and management of metallic and non-metallic mineral resources Analyze the contemporary energy crisis and assess the future scenario Understand the concept of Limits to Growth, resource sharing and sustainable use of resources Environmental Issues in Geography 3+1=4 Understand the geographer's approach to environmental studies Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project				Assess the pressure on resources	
development Understand the distribution, utilization, problems and management of metallic and non-metallic mineral resources Analyze the contemporary energy crisis and assess the future scenario Understand the concept of Limits to Growth, resource sharing and sustainable use of resources Learn the concept of Limits to Growth, resource sharing and sustainable use of resources Learn the geographer's approach to environmental studies Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					
and management of metallic and non-metallic mineral resources • Analyze the contemporary energy crisis and assess the future scenario • Understand the concept of Limits to Growth, resources sharing and sustainable use of resources CC-18 Th+ P Issues in Geography				·	
the future scenario Understand the concept of Limits to Growth, resource sharing and sustainable use of resources. CC-18 Th+P Environmental Issues in Geography 3+1=4 Understand the geographer's approach to environmental studies Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project				and management of metallic and non-metallic	
CC-18 Th+P Environmental Issues in Geography 3+1=4 Understand the geographer's approach to environmental studies Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					
Th+ P Issues in Geography Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					
 Learn the concept of holistic environment and systems approach Differentiate between ecosystem and habitat Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project 		Issues in	3+ 1 = 4		
 Assess the ocean environmental issues with reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project 		Geography		-	
reference to plastic pollution Develop an understanding of the wetland ecosystem with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project				Differentiate between ecosystem and habitat	
with special reference to East Kolkata Wetlands Analyze the rural and urban environmental issues Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					
 Become aware of the Environmental policies- Club of Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project 					
Rome and Earth Summits and conference of the Parties (COP) Thorough understanding of EIA and Environmental Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project				Analyze the rural and urban environmental issues	
 Management Planning Understand the principle environment-related regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project 					Rome and Earth Summits and conference of the
regulations of India Acquire the skill to prepare a questionnaire for perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					_
 perception survey on environmental problems Learn to calculate the organic matter and NPK of soil using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project 				·	
using a soil kit Develop the skill to prepare a checklist for EIA of an urban / Industrial Project					
urban / Industrial Project					
Learn to interpret air quality				· · ·	
				Learn to interpret air quality	

CC-19 Th+ P	Statistical Methods in	3+ 1 = 4	 Recognize the importance and application of Statistics in Geography
	Geography		 Understand the significance of frequency Distribution and Sampling
			Acquire the skill for Numerical Data Analysis
			 Interpret statistical data for a holistic understanding of geographical phenomena.
CC-20	Research	3+ 1 = 4	Understand the significance of research in geography
Th+ P	Methodology & Fieldwork		 Comprehend the techniques of writing scientific reports
			 Gain knowledge on research ethics with reference to plagiarism
			 Have expertise in identification of area of study, methodology, quantitative and quantitative analysis, and conclusions to be drawn about the area – fundamental to geographical research.
			Handle logistics and other emergencies on field.
			 Develop skills in photography, mapping and video recording.
CC-21 Th+ P	Watershed and Coastal Management	3+ 1 = 4	 Understand the importance of watershed as a fundamental hydrological, land use planning and management unit.
			Identify various water conservation measures.
			Prepare watershed development plans.
			Conceptualize the coastal zone and its physical and human processes in tropical coasts.
			Sensitive to coastal environmental issues and consequences.
			Comprehend the significance of coastal planning and management.
			Analyze land capability in watersheds.
			 Quantitatively assess river velocity, discharge and flood frequency.
			Determine breaker types.

CC-22 Th+ P	Historical and Political	3+ 1 = 4	Understand the nature, scope and approaches of historical geography
	Geography		Comprehend the evolution of Indian societies
			 Understand the nature, scope and approaches of political geography
			 Analyze critically post-colonialism, end of cold war and Chinese strategy of expansionism
			Prepare a Report based on a case study
CC-23 Th+ P	Population and Welfare	3+ 1 = 4	Establish the interdisciplinary nature of population studies.
	Geography		 Identify the factors affecting population distribution, density, growth, population change, etc.
			Theorize population growth.
			Interpret population structure and composition.
			 Critically analyze population policies of select nations.
			 Quantitatively assess various characteristics and aspects of population.
CC-24 Th+ P	Rural and Urban Geography	3+ 1 = 4	Understand the paradigms and approaches of rural development
			Identify the patterns and trends of urbanization
			Identify urban issues like urban poverty and crime
CC-25 Th+ P	Regional Development and Planning	3+1=4	 Develop sound understanding of the ideas of growth, development, their indicators, and theories and models explaining them.
			Identify regions on the basis of various criteria.
			Perceive the aspects of regional disparities.
			 Comprehend the relevance of regional planning, its types, strategies, and challenges.
			Delineate regions by various methods.
			Measure inequalities of different types.

PROGRAMME OUTCOME, PROGRAMME SPECIFIC OUTCOME AND COURSE OUTCOME B. A/ B. Sc UNDER CCF, 2022

SKILL ENHANCEMENT COURSE (SEC)

Semesters I (for H) & 1/2/3 (for MD)

Course Code	Course Title	Credits	Course Outcomes
SEC01	Methods in Geography	4	 Comprehend the significance of Pilot survey Comprehend the techniques of Field data collection Acquire the skill for data compilation, computerassisted field data entry and statistical analysis Understand the use of survey instruments Acquire the skill of mapping and extraction of flooded areas and riverbank and coastline shift Prepare accessibility maps
SEC02	Environmental Impact Assessment and Environmental Planning	4	 Understand the conceptual framework of EIA and Environmental Management Planning (EMP) Comprehend the stages of conducting and methodologies for EIA Gain knowledge on Environmental Impact reporting and monitoring Understand the relevance of environmental audit

INTERDISCIPLINARY COURSE (IDC)

Semesters – 1/2/3 (for H)

Course Code	Course Title	Credits	Course Outcomes
IDC01 TH+P	Geomatics and Spatial Analysis	2	 Understand the concept and applications of scales and projections Comprehend the concepts of surveying and their capabilities Gain knowledge of the principles of remote sensing and preparation of False Colour Composites (FCC) Comprehend GIS data types Acquire the skill of constructing Map Projections and plotting UTM coordinates using smartphone GNSS application Detect change of riverbank and coastline shift from maps and images