

Course and Programme Outcomes & Programme Specific Outcomes

Bajkul Milani Mahavidyalaya UG & PG Department of Geography

✍ Course and Programme Outcomes & Programme Specific Outcomes ✍

M.Sc. Semester-I

Course Code & Title	Course Units, Sub-codes & Sub-title	Course Outcome
THEORETICAL COURSE		
GEO 101: EARTH'S SURFACE PROCESS	GEO 101.1: Geotectonics	<p>CO1: The focus of this course is to give an in-depth concept on the fundamental physical laws towards understanding the initial phases of the early universe with special reference to the Earth and the Moon.</p> <p>CO2: It also focuses on the basic understanding of the genesis of the Earth's magnetic field and palaeomagnetism that will enhance the understanding about the Earth's geological history and theories about the continental drift and sea floor spreading.</p> <p>CO3: The course is also designed to have some advanced level of understanding of the absolute dating techniques to find the ages of geological formation.</p> <p>CO4: It also includes the processes and mechanisms of mountain building. All these concepts and techniques will surely enhance the ability of the students for critical analysis and thereby synthesis of the Earth's system process.</p> <p>CO5: The completion of this course will give impetus to the research insights for the students who would like to pursue their future carrier in geosciences.</p>
	GEO 101.2: Geomorphology	<p>CO1: Students will learn about the mechanism and working principle of processes that lead to shape present earth-surface.</p> <p>CO2: Field demonstration on process-form relationship help in concretizing ideas.</p> <p>CO3: This understanding may help in formulating hydrological, geologic and economic planning. Learners may take part in hazard management too.</p>
GEO 102: HYDROSPHERIC SCIENCES	GEO 102.1: Oceanography	<p>CO1: The students will be able to understand the marine environment and oceanographic processes that leads to earth system processes.</p> <p>CO2: They can extend their ideas in understanding environmental and climatic processes too.</p> <p>CO3: An aptitude on the distribution of marine resources as well as their utilization and possible impact are also developed among the students.</p>
	GEO 102.2: Hydrology	<p>CO1: Students will learn about the working principle of earth system processes that lead to water availability and necessity for water management in the context of global climatic change.</p> <p>CO2: This understanding may help in water budgeting and formulating plan for water use and water management.</p> <p>CO3: Learners may take leading role in awareness generation among community for rain water harvesting and judicial water use.</p>

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GEO 103: CLIMATE, SOIL & AGRICULTURE	GEO 103.1: Climatology	<p>CO₁: The course deals with the basic understanding of the climate system.</p> <p>CO₂: The fundamental physics of surface pressure distribution, the general circulation model and sea surface temperature (SST) variation will allow students to get insights to the space-time scale variation of weather and climate.</p> <p>CO₃: Students will understand the weather and climatic processes working on earth and this understanding will help them to assess and predict the weather phenomena and its related hazards. Through this understanding, they can take part in hazard and disaster management programmes.</p>
	GEO 103.2: Soil and Agricultural Geography	<p>CO₁: Learners will understand about functional integration of various process that results in formation and distribution of different types of soil and their implication of agricultural systems.</p> <p>CO₂: They will be able to achieve integrated knowledge on soil and landscape.</p> <p>CO₃: They will develop special aptitude on soil survey techniques to analyse patio-temporal distribution of agricultural systems.</p>
GEO 104: ENVIRONMENTAL GEOGRAPHY	GEO 104.1: Basics Of Environment And Ecology	<p>CO₁: The living things interact with each other in various ways and with the non-living components that make up the environment in which we live. These non-living components include rocks, soils and water, as well as the atmosphere. All these interactions produce a complicated set of interrelationships and these interrelationships can take many forms. Thus, this paper on basics of environment and ecology prepares students for careers as leaders in understanding and addressing complex environmental issues from a problem-oriented, interdisciplinary perspective.</p> <p>CO₂: Ecology is a scientific way of thinking about the world. This means that it involves a certain way of investigating, studying and writing about the systems.</p> <p>CO₃: Student can learn the core concepts and methods from ecological and environmental perspectives and their application in environmental problem solving.</p>
	GEO 104.2: Landscape Ecology And Planning	<p>CO₁: Landscape ecology is the study of the pattern and interaction between ecosystems within a region of interest, and the way the interactions affect ecological processes, especially the unique effects of spatial heterogeneity on these interactions.</p> <p>CO₂: This paper provides students with an introduction to the discipline of landscape ecology. Thus, this paper focuses on the characteristic scale of spatial pattern; defining the elements of pattern; connectedness, fractal geometry, how these aspects of pattern are interconnected in landscapes, and how they vary.</p> <p>CO₃: It may help students detecting, analyzing, or simulating landscape change; and modeling populations or communities in landscape mosaics and educate students for professional life.</p>

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PRACTICAL COURSE

GEO 195: HYDROLOGICAL TECHNIQUES AND SEDIMENTOLOGICAL ANALYSIS	GEO 195.1: Hydrological Techniques	<p>CO₁: Students will develop skills in application of theoretical knowledge of hydrology.</p> <p>CO₂: They will learn on field as well as laboratory techniques for estimating different hydrological attributes as for example rainfall, run off, infiltration etc. in order to construct water budget.</p> <p>CO₃: Students are enabled to analyse magnitude frequency of different hydrological hazards like fold and droughts and their social and economic applications.</p> <p>CO₄: This knowledge will help them in formulating various hydrological projects and their successful management.</p>
	GEO 195.2: Sedimentological Analysis	<p>CO₁: Students will develop aptitude and abilities on different methods of sediment sampling from field.</p> <p>CO₂: They will also be trained thoroughly on laboratory method and field method of sediment analysis.</p> <p>CO₃: This will help them to understand various types of environment and process domain under which sediments were deposited. Thus they can develop skills for reconstructing past.</p>
GEO 196: THEMATIC MAPPING	GEO 196.1: Environmental Mapping	<p>CO₁: Students will develop cartographic skills for constructing various thematic maps and foster their abilities in showing the spatial distribution of various environmental elements and their proper interpretation.</p> <p>CO₂: This ability will help them to formulate environmental plans and to manage and conserve vegetation, soil, water etc.</p>
	GEO196.2: Physical and Social Thematic Mapping	<p>CO₁: Students will develop cartographic skills for constructing various thematic maps and foster their abilities in showing the spatial distribution of various physical as well as social elements and their proper interpretation.</p> <p>CO₂: Skill of understanding spatial integration among physical and social elements will be developed to foster the abilities of holistic abilities.</p>

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M.Sc. Semester-II

Course Code & Title	Course Units, Sub-codes & Sub-title	Course Outcome
THEORETICAL COURSE		
GEO 201: Environmental Approaches & Application	GEO 201.1: Environmental Ethics and Regulation	<p>CO₁: Environmental Ethics examines the ways we supposed to value the environment and thenon-human inhabitants of the earth. It examines the moral relationship between human beings and non-human beings (including the environment itself). This paper will consider the implications of this examination for an ethical life. It demonstrates the ethical conduct in all scientific activities.</p> <p>CO₂: The paper includes both philosophical bases (moral obligations, the nature of value) and policy measures to be adopted for the betterment of the environment and earth.</p> <p>CO₃: The students will be able to explain and apply principles of environmental ethics and apply philosophical concepts used in environmental ethical decision-making.</p> <p>CO₄: They may apply theories and concepts to particular cases, and ability to provide critical assessment of arguments.</p>
	GEO 201.2: Environmental Engineering	<p>CO₁: Students will learn about the necessity and mechanism of waste water treatment and understand the procedures to manage air and noise pollution.</p> <p>CO₂: This course aims to enablethe learners to participate in making of pollution free environment.</p> <p>CO₃: This fundamental understanding and knowledge help them to get engaged in various non-government and government initiatives in this regard.</p>
GEO 202: POPULATION & DEVELOPMENT	GEO 202.1: Population Geography	<p>CO₁: Through this module students will learn the various aspects of population growth process,its impact on economy, society and politics.</p> <p>CO₂: Various policy regarding the control and development of human resources, their necessity, and outcome will be understood. This understanding will help them to take part in various govt schemes and programmes relating to population issues.</p>
	GEO 202.2: Population & Development	<p>CO₁: The course is designed to give an account of the population and development debate including some of the measures of human development measurements.</p> <p>CO₂: Students will also aware about the migration pattern of people from one place to other.</p> <p>CO₃: They will be able to calculate the Human Development Index and other indices to assess the quality of human population.</p> <p>CO₄: Any planning activities relating to economy and population need such knowledge to proper implementation and outcome.</p>

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GEO 203: REGIONAL GEOMORPHOLOGY & RESOURCE MANAGEMENT	GEO 203.1: Regional Geomorphology of India and West Bengal	CO₁: Students will be able to learn about the regional boundaries of geomorphological regions in India and also understand the physiographic diversity of India and West Bengal, their unique characteristics and regional importance.
	GEO 203.2: Land, Water and Forest: Conflict and Conservation	CO₁: Students will acquire knowledge about primary resources, their conflicts in uses, availability and need for conservations. CO₂: They will understand the environmental and economic services of land, water and forests. It will enhance their ability of being a resource planner.
C-GEO 204: Resource Management and Earth System science	C-GEO 204.1: Resource and Its Management	CO₁: The course is designed for basic understanding for the students from different discipline other than Geography. CO₂: It includes the fundamental concepts of natural and human resources and their management and planning strategies. CO₃: On completion of this course, the students get a founding knowledge of the natural resources in environment.
	C-GEO 204.2: Earth System Science	CO₁: The course is designed with an interdisciplinary approach for the students from outside Geography. CO₂: It includes the fundamental ideas of Geotectonics, atmospheric composition and processes, the surface geomorphology and sea bathymetry. CO₃: On completion of this course, these fundamental concepts will help the students from other branches to have a basic idea of geosciences.
PRACTICAL COURSE		
GEO 295: STATISTICAL TECHNIQUES	GEO 295.1: Basic Statistics in Geography	CO₁: The course, split into two units, corresponds to the basic and advance statistics, is a starting point of escalating the statistical analytical skills. CO₂: It includes the founding concepts of probability distribution including the advanced linear modelling with matrix solution to the multivariate linear and non-linear model.
	GEO 295.2: Advanced Quantitative Methods	CO₃: These concepts are essential for augmenting the analytical skills of any beginner in Geography that includes both physical and social aspects of academic discipline. CO₄: Upon completion of this course, the students get the benefit of having strong mathematical and statistical analytical skills.
GEO 296: REMOTE SENSING AND COMPUTER APPLICATION	GEO 296.1: Principles of Remote Sensing and Aerial Photography	CO₁: The course content is focused on basic understanding of satellite remote sensing and aerial photography. CO₂: Basic principles of satellite motion and sensor parameters including the principles of air photo help the students to formalize with the modern space based analytical techniques. CO₃: Upon completion of this course, the students will get benefit from rigorous practice and comprehensive theories.
	GEO 296.2: Computer Basics and Applications	CO₁: The course is designed to get a comprehensive knowledge of fundamentals of computer application. CO₂: It also includes the exercise from Microsoft excel and SPSS regarding the basic statistical computation. CO₃: The course, therefore, lay the foundation for software-based computing skills. CO₄: Upon completion, the students get adequate level of skills to do statistical analysis.

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M.Sc. Semester-III		
Course Code & Title	Course Units, Sub-codes & Sub-title	Course Outcome
Theoretical Courses		
GEO-301: APPROACHES TO REGIONAL DEVELOPMENT	GEO 301.1: Regional Approach in Geography	<p>CO₁: This course is focused on the fundamental concepts of regional geography including the classical approach to define an area as region.</p> <p>CO₂: It includes the methods of regional delineation and classification of region based on their properties.</p> <p>CO₃: On completion of this course, the pupils get a comprehensive understanding of the regional analysis.</p> <p>CO₄: They will also learn about the concept of planning region and their delineation methods and this understanding may help them to assist in various planning process.</p>
	GEO 301.2: Rural Development	<p>CO₁: The focus of the course is to develop an idea about the approach to understanding the rural development.</p> <p>CO₂: It includes the status report of the rural development in India on various accounts, i.e. agriculture, health, education, rural employment, infrastructure and rural electrification.</p> <p>CO₃: The role of micro finance is also included to give students an understanding of the rural economic development.</p> <p>CO₄: The students get an inclusive understanding of the rural development and its dynamics upon completion of this course.</p>
GEO- 302: SETTLEMENT AND TRANSPORT GEOGRAPHY	GEO 302.1: Settlement Geography	<p>CO₁: The primary aim of studying settlement geography is to acquaint with the spatial and structural characteristics of human settlements under varied environmental conditions.</p> <p>CO₂: The paper deals with multi disciplinary perspectives on the formation, evolution of human settlement.</p> <p>CO₃: The paper will help the students to make an understanding on the reasons people settle in certain locations and the geographical features lead to the development of civilizations.</p> <p>CO₄: The Nature and Scope of Settlement Geography, Characteristics of Rural and Urban Settlements according to Indian Census and nature, scope, evolution and several study methods are learned.</p> <p>CO₅: The students will learn the settlement types, pattern and nature and process of urban settlement, different cultural landscapes.</p>
	GEO 302.2: Transport Geography	<p>CO₁: Students will learn about the role of transport in entire economic and social processes.</p> <p>CO₂: This course aims to make students understand the locational advantage of different economic and social institutes based on transport principle.</p> <p>CO₃: They are made aware of the role of public transport in addressing the problems of congestion and air pollution.</p> <p>CO₄: This understanding may help them in formulating plan for regional development and economic regeneration by proper transport planning.</p>

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GEO 303: SPECIAL PAPERS		
303A: ADVANCED GEOMORPHOLOGY	GEO 303A.1: Process Geomorphology-1	<p>CO1: Students will learn about the mechanism and working principle of geomorphic processes in details that lead to shape present earth-surface.</p> <p>CO2: This understanding may help in formulating engineering plan for management of land, water and soil, three basic resources on earth surface.</p> <p>CO3: They will also have a clear insight into the process and forms on the surface of Moon and Mars</p>
	GEO 303A.2: Process Geomorphology-2	<p>CO1: Students will learn about the mechanism and working principle of geomorphic processes in details that are operating since historical time to shape present earth-surface.</p> <p>CO2: This course aims to build an understanding role of humans in shaping earth surface and regulating natural processes and their outcome on natural systems.</p> <p>CO3: Learners may take part in sustainable resource management.</p>
303B: COASTAL MANAGEMENT	GEO 303B.1: Coastal Processes	<p>CO1: The learners will understand the systematic interactions among terrestrial atmospheric and marine processes along the coast as a systematic whole.</p> <p>CO2: They will learn the dynamic and functional interrelationship between forms and processes in a coastal region and their dynamic equilibrium.</p>
	GEO 303B.2: Coastal Environments: Focus on Indian Regions	<p>CO1: Students will get knowledge about long term and short-term development of landforms by several processes in some of the coastal regions in India and form process relationships in different spatial and temporal scales.</p> <p>CO2: They will understand the problems of coastal erosion and other hazards in the context of global climatic change.</p>
303C: URBAN GEOGRAPHY AND REGIONAL PLANNING	GEO 303C.1: Foundation of Urban Geography	<p>CO1: This paper will provide knowledge on spatial analysis of functions of urban areas. Social and economic characteristics of cities and suburbs will be discussed under this paper. Urban land use and its impact on environment and ecology will be addressed.</p> <p>CO2: This paper will introduce students to the basics of urban geography, such as definition of cities, central place theory, National urban systems, and traditional models of urban spatial structure.</p> <p>CO3: More importantly, students will be exposed to contemporary urban topics such as global cities, urban sprawling, urban green space, urban ecology and footprints etc. Emphasis will be placed on the urban experience of developing countries, especially India.</p> <p>CO4: The students will be able to assemble knowledge of urbanism and urbanization as historic, geographic, social, and cultural processes, historical development, contemporary condition, and environmental impact of cities and urban related issues growing from exposure to the disciplines of Geography and Planning</p>
	GEO 303C.2: Contemporary Urban Issues	<p>CO1: Student will understand through this module various socio-economic and environmental problems with the growing urbanisation in our country as well as various parts of the world.</p> <p>CO2: This knowledge will help them to surmise the necessity of urban</p>

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		planning and they will be able to evaluate the effectiveness of various govt programmes for urban planning.
303D: Remote Sensing and Geographic Information System	GEO 303D.1: Physical Basis of Remote Sensing	<p>CO₁: The course is designed to give fundamental and some advanced knowledge of spacebased remote sensing and aerial photography.</p> <p>CO₂: From orbital parameters of satellite to complexity of aerial camera and film in association with the flight parameters, all of these will allow students to get an in-depth understanding of remote sensing and aerial photographic system.</p>
	GEO 303D.2: Photogrammetry, Aerial Photo and Satellite System	
ELECTIVE PAPER		
C-GEO 304: Environmental Issues and Management	C-GEO 304.1: Emerging Issues and Policies on Environment	<p>CO₁: Students will develop their interest in various aspects of environment and contemporary environmental issues.</p> <p>CO₂: Students will develop their deep understanding in the nature of increasing intensity and magnitude of various hazards in connection to global pattern of economic disparity, social discrimination and climate change.</p>
	C-GEO 304.2: Environmental Hazards and Disaster Management	<p>CO₁: Students will foster their skill in managing various types of natural hazards by analysing their risk and vulnerability.</p> <p>CO₂: They will be trained in the procedures of hazard management through proactive approach by increasing the resilience of the community in tune with national policy of hazard management and international laws.</p>
PRACTICAL COURSE		
GEO 395: GIS APPLICATION IN RESEARCH	GEO 395. 1: Applications of Remote Sensing & Geographic Information System	<p>CO₁: The course is designed for the general ideas of GIS and image-based information.</p> <p>CO₂: Upon completion of this course, students get benefit from these baseline concepts to further increase their knowledge.</p>
	GEO 395.2: Research Methodology	<p>CO₁: The learners will get the initial training on various steps involved in geographical research.</p> <p>CO₂: They will develop the idea on fundamentals of research methodology including data collection, methodology and report writing.</p> <p>CO₃: This course aims to develop fundamental research aptitude among all the students.</p>
GEO 396: SPECIAL PAPER BASED FIELD WORK & FIELD REPORT	GEO 396: SPECIAL PAPER BASED FIELD WORK	
	396A: Advanced Geomorphology	<p>CO₁: This course aims to present the essence of geography as a field science.</p> <p>CO₂: Students will develop their aptitude in observation, data generation through field survey, data analysis with various software and advanced techniques.</p> <p>CO₃: They will also know how to represent spatial data through various cartographic techniques and mapping.</p> <p>CO₄: A hands on practical training is practiced through rigorous involvement in all the stages of pre-field, field and post field works.</p>
	396B: Coastal Management	
	396C: Urban Geography and Regional Planning	
	396D: Remote Sensing and Geographic Information System	

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M.Sc. Semester-IV		
Course Code & Title	Course Units, Sub-codes & Sub-title	Course Outcome
Theoretical Courses		
GEO 401: GEOGRAPHICAL PHILOSOPHY	GEO 401.1: Schools in Geographical Thought	<p>CO₁: The course incorporated the fundamental concepts of geographical thought.</p> <p>CO₂: It includes the premier concepts of geography at the time of its emergence to the past century (20th century).</p> <p>CO₃: Upon completion of this course, the students would have a comprehensive idea of the fundamental nature of Geography and how it evolves with time.</p>
	GEO 401.2: Contemporary Discourses in Geography	<p>CO₁: Students will learn about the philosophical background that guides the approaches and ways of thinking to design teaching-learning and research under different discourses of Geography.</p> <p>CO₂: It aims to achieve a clear insight into theoretical foundation of the subject that is articulated among different courses and guides to design objectives and methodological framework of geographical enquiry.</p> <p>CO₃: This understanding helps the learners to locate themselves in the wide and dynamic philosophical domain of the discipline and help them to concentrate towards developing geography as a science of holistic synthesis.</p>
GEO 402: POLITICAL GEOGRAPHY AND GLOBALIZATION	GEO 402.1: Political Geography	<p>CO₁: Students will develop their understanding on politics of space and spatial patterns of political and economic power distribution.</p> <p>CO₂: This course will enable the of Government in India based on the principle of regional disparities in India.</p> <p>CO₃: They will also know about the nature of conflict at national and global level centered on water and power resources.</p> <p>CO₄: They will develop their interest in analyzing factors and local as well as global implications of economic and political agglomerations in the form of economic and political blocs.</p>
	GEO 402.2: Geography of Globalization	<p>CO₁: This course is focused on the fundamental concepts of globalization and its overall impacts on agriculture, industry, trade and culture.</p> <p>CO₂: It also focused on the issues and challenges of globalization faced by the countries across the world.</p> <p>CO₃: The students get a leading idea about the globalization and its consequences upon completion of this course.</p>
GEO 403: SOCIETY AND REGIONAL PLANNING	GEO 403.1: Social and Cultural Geography	<p>CO₁: The paper is based on the nature, scope and content of social and cultural Geography.</p> <p>CO₂: The paper will examine the role of social divisions such as class, 'race'/ethnicity, gender and sexuality in shaping the social geographies of regions. Emphasis is given on cross-disciplinary, critical engagement with current events.</p> <p>CO₃: On completion of the course, students are able to Understand the nature, scope, and concept, relationship between culture and social environment, and right of information act, the cultural complex and traits of culture and its concepts, evolution to civilization and cultural system according to religion, language and geography, and global cultural changes.</p>
	GEO 403.2: Regional Planning	<p>CO₁: The learners will be able to know the process of planning in India, its role and various strategy for the development of our country.</p> <p>CO₂: The students will understand how they can participate in the planning and</p>

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		development of the nation. CO ₃ : This knowledge is very effective for the government also for smooth conduction of the development planning.
GEO 404: SPECIAL PAPERS		
404A: ADVANCED GEOMORPHOLOGY	GEO 404A.1: Advanced Geomorphic Techniques	CO ₁ : Students will learn about the empirical methods to estimate various geomorphic attributes by using field instruments or through models run by sophisticated software. CO ₂ : This will offer them training on data generation, computation and analysis. CO ₃ : This course aims to enable learners deal with real world problems using advanced technology recently available to the department from DST-FIST programme, Department of Science and Technology, Govt. of India.
	GEO 404A.2: Applied Geomorphology	CO ₁ : Students will learn how to apply theoretical knowledge of geomorphology in wide range of engineering and management problems ranging from drainage basin management to hazard management. CO ₂ : They are trained to apply geomorphic understanding on water management, land use planning, sewage and solid waste management. They are also trained on their contribution in EIA and EMP. CO ₃ : This course aims in revival of the applied value of the discipline.
404B: COASTAL MANAGEMENT	GEO 404B.1: Coastal Ecology and Hazards	CO ₁ : Students will understand the ecological importance of coast as an important habitat between terrestrial and marine system. CO ₂ : They will also develop their deep insight into the significance and techniques of coastal study in the context of increasing hazards forced by global climatic change. CO ₃ : They will be exposed to the information on the future scope of coastal studies in India.
	GEO 404B.2: Coastal Issues and Management	CO ₁ : Students will understand about the complexities of emerging coastal issues and their better management techniques. CO ₂ : They will get employment opportunities as research scientist in the various institutes like INCOIS, MOEF, DST, NIO, NCSCM, Dept. of Earth Sciences and TOURISIM Department etc.
404C: URBAN GEOGRAPHY AND REGIONAL PLANNING	GEO 404C.1: Theoretical Bases of Regional Planning	CO ₁ : This paper will provide knowledge on spatial analysis of functions of urban areas. CO ₂ : Social and economic characteristics of cities and suburbs will be discussed under this paper. CO ₃ : Urban land use and its impact on environment and ecology will be addressed. CO ₄ : This paper will introduce students to the basics of urban geography, such as definition of cities, central place theory, National urban systems, and traditional models of urban spatial structure. CO ₅ : More importantly, students will be exposed to contemporary urban topics such as global cities, urban sprawling, urban green space, urban ecology and footprints etc. Emphasis will be placed on the urban experience of developing countries, especially India. CO ₆ : The students will be able to assemble knowledge of urbanism and

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		urbanization as historic, geographic, social, and cultural processes, historical development, contemporary condition, and environmental impact of cities and urban related issues growing from exposure to the disciplines of Geography and Planning.
	GEO 404C.2: Planning for Urban Development	CO1: Students will understand the urban planning process in various issues like sanitation, transport, housing, water supply etc and various policies of the govt. CO2: The knowledge about the remote sensing and GIS is also important for urban planning. CO3: The students will be able to participate in various works relating to urban planning.
404D: REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM	GEO 404D.1: Advanced Remote Sensing	CO1: This core content of this course is focused on some advanced ideas of microwave and hyper spectral remote sensing including image-based statistics for digital image processing. CO2: The course is also focused on some of the advanced ideas of GIS including remote sensing and GIS integration.
	GEO 404D.2: Advanced GIS and Applications of Remote Sensing	CO3: It includes the application of GIS and remote sensing in various purposes. CO4: Upon completion of this course, students would be benefited from these advanced levels of applications, and allow them to pursue their future career in GI Science.
PRACTICAL COURSES		
GEO 495: GEODESY AND GIS	GEO 495.1: Map Transformation and Geodesy	CO1: The course is designed for providing the fundamental ideas of Geodesy and map projection. CO2: It includes some advance projective transformation from 3D to 2D surface.
	GEO 495. 2: Geographic Information System	CO3: The course also includes the fundamentals of GI science and its application. CO4: The students get an exposure to the theoretical and practical understanding upon completion of this course.
GEO 496: SPATIAL ANALYSIS AND PROTOTYPE RESEARCH	GEO 496. 1: Spatial Analysis in Geography	CO1: The focus of this course is to give a comprehensive understanding of the spatial organization through mathematical and statistical analysis. CO2: Upon completion of this course, the students get an inclusive knowledge and skills to perform spatial analysis at different spatial scale.
	GEO 496. 2: Research Exercise in Geography	CO1: The learners will get the initial training on various steps involved in geographical research. CO2: They will develop the idea on fundamentals of research methodology including data collection, methodology and report writing. CO3: This course aims to develop fundamental research aptitude among all the students. CO4: Upon completion of this course, the students get an inclusive knowledge and skills to perform future research work like Ph.D., Minor and Major Research Projects, Post Doc. Research Works, etc.

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Programme Outcome (PO) of M.A. / M.Sc. in Geography	
PO₁	Fostering the ability of the students to encounter practical problems with theoretical knowledge in Geography and Environment.
PO₂	Promotion of research aptitude and field work aptitude as well as laboratory based practical works for the students of Geography.
PO₃	Capacity enhancement of the students in spatial mapping on digital platform for the Geographical research and studies.
PO₄	Orientation of the students of Geography to develop competitive examinations aptitude among them including NET / SET/ and other professional jobs.
PO₅	Preparing students for Higher Academic programmes for institutes of National and International repute.
PO₆	On completion of the M.A. / M. Sc in Geography, students are able to get absorbed in various Govt Departments (like planning and developmental commissions, forestry, environmental, and disaster management departments) travel agencies, manufacturing firms, etc. They can be cartographer (NATMO), surveyor (Survey of India), GIS and Remote Sensing experts, environmental planner, Environment Reporter, urban and regional planner, transportation manager, Teacher/Professoretc.
PO₇	Instill confidence and develop a sense of identity in facing the real world.
PO₈	Foster cooperation among students enabling them to connect and contribute towards teamwork activities.
PO₉	Develop effective communications skills that promote leadership qualities individually as well as within a group.
PO₁₀	Develop critical thinking and skills that train students to analyze problems and validate real life solutions.
PO₁₁	Prepare objective scientific approach so that students can address research problems in Applied Geography and allied fields.
PO₁₂	Strive towards making enlightened citizens with commitment and empathy to social concerns.
PO₁₃	Inculcate a sense of environmental ethics that focus research and concerns on sustainability.
PO₁₄	Inculcate strong moral and ethical values and a sense of discipline among the students.
PO₁₅	Ensure that the lessons are self-directed and lead to lifelong learning.

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B.Sc. (Honours) Semester-I

Course Code & Title	Course Segment with Sub-title	Course Outcome
CORE COURSE [For Mother Discipline]		
GEOH: CC-1: C1T: Geotectonics and Geomorphology	Unit-I: Geotectonics	<p>CO1: Understand the theories and fundamental concepts of Geotectonic.</p> <p>CO2: Understand earth's tectonic and structural evolution. Gain knowledge about earth's interior. Develop an idea about concept of plate tectonics, and resultant landforms.</p> <p>CO3: Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms.</p> <p>CO4: Understanding crustal mobility and tectonics; with special emphasis on their role in landform development.</p>
	Unit-II: Geomorphology	<p>CO1: Develop an idea about geomorphology and different types of fundamental concepts.</p> <p>CO2: Explain different types of geomorphic processes like weathering and mass wasting and cycle of erosion.</p> <p>CO3: Overview and critical appraisal of landform development models.</p> <p>CO4: Understand the processes of erosion, deposition and resulting landforms.</p> <p>CO5: Acquire knowledge about slope forms and processes.</p> <p>CO6: Develop the skills of identification of features and correlation between them.</p> <p>CO7: Identification of rocks and minerals.</p>
GEOH: CC-2: C2T & C2P: Cartographic Techniques	C2T: Cartographic Techniques	<p>CO1: Understand and prepare different kinds of scales.</p> <p>CO2: Understanding the types of maps and appreciate the elements of maps.</p> <p>CO3: Recognize methodological, structural and functional themes/ aspects of map and map making.</p> <p>CO4: Development of observation skills.</p> <p>CO5: Explaining projections and its application to prepare maps from the globe.</p>
	C2P : Cartographic Techniques Lab	<p>CO6: Analyzing geographical data and use it to prepare maps.</p> <p>CO7: Comprehension of locational and spatial aspects of earth surface for regional development and decision-making.</p> <p>CO8: Gain knowledge about topographical maps and apply this knowledge in ground surface.</p>
GENERIC ELECTIVE (GE) COURSE [Interdisciplinary for other department]		

Course and Programme Outcomes & Programme Specific Outcomes

GE-1: Disaster Management	GE1T: Disaster Management	<p>CO1: Assessing the processes, impact and management of natural and man – made hazards.</p> <p>CO2: Understanding the fundamental concepts of hazard, disaster and extreme events.</p> <p>CO3: Assessing risk, perception and vulnerability with respect to hazards.</p> <p>CO4: Investigation and assessment of causes, impact, causality and mechanism of various types of hazards/ disasters.</p> <p>CO5: Understanding the roles of various characters in disaster management from different ends of efforts.</p> <p>CO6: Understanding the essential tools and techniques for response, mitigation, preparedness to disaster in terms of its management.</p> <p>CO7: Knowledge gaining to prepare hazard zonation maps.</p> <p>CO8: Helping to build an appreciation for the challenges and complexities involved in Disaster Management.</p>
B.Sc. (General) Semester-I		
CORE COURSE		
GEOG: DSC-1A (CC-1) : DSC1AT: Physical Geography	DSC1AT: Physical Geography	<p>CO1: Understand different view and approaches regarding physical geography.</p> <p>CO2: Develop history of geomorphic ideas of different schools.</p> <p>CO3: Gain knowledge about earth's interior and understanding about the plate tectonics and the resultant outcome of plate dynamics.</p> <p>CO3: Develop an idea about concept of internal structure of the earth and related conditions.</p> <p>CO4: Acquire knowledge about different process of denudation.</p> <p>CO5: Understand the processes of erosion, deposition and resulting landforms.</p> <p>CO6: Understand concept of normal cycle of erosion and its interruption.</p> <p>CO7: Develop an idea about the fundamentals of atmosphere and climatic classification.</p> <p>CO8: Acquire knowledge about hydrology.</p>

Course and Programme Outcomes & Programme Specific Outcomes

✍ Course and Programme Outcomes & Programme Specific Outcomes ✍		
B.Sc. (Honours) Semester-II		
Course Code & Title	Course Segment with Sub-title	Course Outcome
CORE COURSE [For Mother Discipline]		
GEOH: CC-3: C3T: Human Geography	Unit-I: Nature and Principles	<p>CO₁: Understanding the approaches and processes of Human Geography as well as the diverse patterns of habitat and adaptations and gaining knowledge about major themes of Human Geography.</p> <p>CO₂: Develop an idea about space and society.</p> <p>CO₃: Understanding the concept and dynamics of human society and acquiring the knowledge on the history and evolution of humans.</p>
	Unit-II: Society, Demography and Ekistics	<p>CO₄: Identifying the different global population dynamics and building up an idea about population growth and distribution of population.</p> <p>CO₅: Explaining the correlation between man and environment and the resultant cultural landscape.</p> <p>CO₆: Knowing about population –resource relationship.</p> <p>CO₇: Examining the human societies and how they develop, their culture, economy and politics, all within the context of their environment.</p>
GEOH: CC-4 : C4T & C4P: Cartograms and Thematic Mapping	C4 T : Cartograms and Thematic Mapping	<p>CO₁: Developing the idea about different types of thematic mapping techniques for its preparation.</p> <p>CO₂: Interpreting, reading, analyzing and identifying features from Topographical maps.</p> <p>CO₃: Interpreting, reading, analyzing and identifying features from various types of Thematic maps.</p>
	C4 P: Cartography (Lab)	<p>CO₄: Construction and representation of geographical data through Cartograms.</p> <p>CO₅: Comprehend the concept of scales and representation of data through cartograms.</p> <p>CO₆: Learn the uses of various survey instruments.</p> <p>CO₇: Brings direct interaction of different types of surveying instruments like Dumpy level, Prismatic Compass, etc. with environment.</p> <p>CO₈: Knowledge about different techniques for preparation, presentation and interpretation of various geographical data in term of diagram, graph and map making.</p>
GENERIC ELECTIVE (GE) COURSE [Interdisciplinary for other department]		

Course and Programme Outcomes & Programme Specific Outcomes

GE-2 : GE2T: Geospatial Technology	Geospatial Technology	<p>CO1: Understanding the concept, components, scope and historical development of geospatial technology.</p> <p>CO2: Understanding the concepts of spheroid, ellipsoid and projection systems.</p> <p>CO3: Knowing the data types and structures in spatial technology.</p> <p>CO4: Gaining the principle based knowledge of land-based surveying with reference to auto level and total station</p> <p>CO5: Developing an idea about classification of Remote Sensing platforms, sensors, resolution and satellite systems.</p> <p>CO6: Understanding the principles and techniques about georeferencing, image enhancement, image classification and preparation of thematic maps.</p> <p>CO7: Developing the idea about sources, preparation and manipulation of GIS data, spatial modelling and overlayanalysis.</p> <p>CO7: Understanding the principles of satellite positioning and navigation and collection of waypointsand exporting to GIS.</p> <p>CO8: Knowledge gaining for preparing DEMs.</p> <p>CO9: Understanding the integration of different components of spatial technology.</p>
B.Sc. (General) Semester-II		
CORE COURSE		
GEOG: DSC-1B (CC-2): Human Geography	DSC1BT: Human Geography	<p>CO1: Understanding the approaches and processes of Human Geography as well as the diverse patterns of habitat and adaptations and gaining knowledge about major themes of Human Geography.</p> <p>CO2: Understanding the concept and evolution of human society.</p> <p>CO3: Identifying the different global population dynamics with reference to population growth and distribution of population.</p> <p>CO4: Examining the human societies and how they develop, their culture, economy and politics, all within the context of their environment.</p> <p>CO5: Knowing about population –resource relationship.</p> <p>CO6: Making the idea about the types, pattern and development of rural and urban settlement.</p>

Course and Programme Outcomes & Programme Specific Outcomes

✍ Course and Programme Outcomes & Programme Specific Outcomes ✍		
B.Sc. (Honours) Semester-III		
Course Code & Title	Course Segment with Sub-title	Course Outcome
CORE COURSE [For Mother Discipline]		
GEOH: CC-5: C5T: Climatology	Unit I: Elements of the Atmosphere	<p>CO₁: Acquiring clear cut concepts of climatology and meteorology.</p> <p>CO₂: Greater understanding of the nature and scope of climatology; ocean atmospheric interaction; climate change and its impacts</p> <p>CO₃: Understanding the composition, processes, functions and importance of the atmosphere.</p> <p>CO₄: Understanding the mechanism and consequences of various atmospheric and climatic events over time.</p> <p>CO₅: Understanding the elements of weather and climate, different atmospheric phenomena and climate change.</p> <p>CO₆: Learning to associate climate with other environmental and human issues.</p> <p>CO₇: Analyzing the dynamics of the Earth's atmosphere and global climate.</p> <p>CO₈: Assessing the role of man in global climate change.</p> <p>CO₉: Learning to use of various meteorological instruments, tools and techniques and prepare various climatic maps and charts and interpret them.</p> <p>CO₁₀: Study various methods of data collection, check weather conditions and learn the theoretical basis of meteorological instruments</p> <p>CO₁₁: Acquiring techniques of hydro-meteorology and agro-meteorology.</p> <p>CO₁₂: Responding to global warming at individual as well as societal levels; responding to issues of climate change and its impacts</p> <p>CO₁₃: Helping for weather interpretation and forecasting with focus on application of climatology and meteorology for future research work.</p>
	Unit II: Atmospheric Phenomena and Climatic Classification	
GEOH: CC-6 : C6T & C6P: Statistical Methods in Geography	C6T: Statistical Methods in Geography	<p>CO₁: Learning the significance of statistics in geography.</p> <p>CO₂: Understanding the importance of use of data in geography</p> <p>CO₃: Recognizing the importance and application of Statistics in Geography</p> <p>CO₄: Interpreting statistical data for a holistic understanding of geographical phenomena.</p> <p>CO₅: Understanding data collection and its processing for meaningful outcomes and comprehension, representation and interpretation of data outcomes.</p> <p>CO₆: Knowing about different types of sampling, its techniques and application in various geographical study or researches.</p> <p>CO₇: Developing an idea about theoretical distribution.</p> <p>CO₈: Learning to use tabulation of data.</p> <p>CO₉: Gaining the knowledge about association and correlation.</p> <p>CO₁₀: Escalating the statistical analytical skills through the learning and practices of both basic and advance statistics.</p> <p>CO₁₁: Augmenting the analytical skills of any beginner in Geography that includes both physical and social aspects of academic discipline.</p> <p>CO₁₂: Upon completion of this course, the students get the benefit of having strong mathematical and statistical analytical skills.</p>
	C6P: Statistical Methods in Geography	

Course and Programme Outcomes & Programme Specific Outcomes

GEOH: CC-7 : C7T: Geography of India	Unit I: Geography of India	<p>CO₁: Understanding the physical and socio – cultural set up and profile of our country, India.</p> <p>CO₂: Making the base knowledge about nature, types and distribution of Indian soil, vegetation and climate.</p> <p>CO₃: Understanding the fate-fortune scenario of Indian population and related policy over time.</p> <p>CO₄: Appraisal of distribution, utilization and resource endowment of the country.</p>
	Unit II: Geography of West Bengal	<p>CO₅: Developing the concepts of regionalization in India from physiographic, economic and socio-cultural points of view.</p> <p>CO₆: Making the analytical knowledge base about Green Revolution in India and growing importance of Automobile Industry and Information Technology throughout the nation.</p> <p>CO₇: Understanding the major physical, demographic, socio-economic and problematic features and dimensions of West Bengal from regional view point and as the homeland of us.</p>
SKILL ENHANCEMENT COURSE (SEC) [For Mother Discipline]		
GEOH: SEC-1: SEC1T: Coastal Management	SEC-1T: Coastal Management (Option-1)	<p>CO₁: Understanding the various components and coastal morphodynamic variables.</p> <p>CO₂: Understanding the systematic interactions among terrestrial atmospheric and marine processes along the coast as a systematic whole.</p> <p>CO₃: Learning the dynamic and functional interrelationship between forms and processes in a coastal region and their dynamic equilibrium.</p> <p>CO₄: Drawing the knowledge about long term and short-term development of landforms by several processes in some of the coastal regions in India and form process relationships in different spatial and temporal scales.</p> <p>CO₅: Understanding the problems of coastal erosion and other hazards in the context of global climatic change.</p> <p>CO₆: Identifying the different environmental impacts and management of anthropogenic interventions.</p> <p>CO₇: Analyzing the policies of coastal zone management, focussing on EEZ and CRZ.</p> <p>CO₈: Assessing coastal hazards and its management.</p>
GEOH: SEC-1: SEC1T: Computer Basics and Computer Applications	SEC1T: Computer Basics and Computer Applications (Option-2)	<p>CO₁: Drawing a comprehensive knowledge of fundamentals of computer application.</p> <p>CO₂: Understanding the representation and computation of data using statistical techniques, bivariate analysis and its representation.</p> <p>CO₃: Making the comprehension of representation and interpretation of the results.</p> <p>CO₄: Having the skills from theory to exercise using Microsoft excel and SPSS regarding the basic statistical computation.</p> <p>CO₅: Laying the foundation for software-based computing skills.</p> <p>CO₆: Upon completion, the students get adequate level of digital skills to do statistical analysis and small scale study or research.</p>
GENERIC ELECTIVE (GE) COURSE [Interdisciplinary for other department]		

Course and Programme Outcomes & Programme Specific Outcomes

GE-3: GE3T: Geography of Tourism (Option-1)	Geography of Tourism	<p>CO₁: Knowing the concepts, nature and scope, inter-relationships of tourism, recreation and leisure.</p> <p>CO₂: Learning the factors influencing tourism and conceptualizing different types of tourism like ecotourism, cultural tourism, adventure tourism, medical tourism, pilgrimage, international, national, etc.</p> <p>CO₃: Understanding about different types of tourism and recent trends of tourism in India.</p> <p>CO₄: Developing an idea about tourism development, problems and potentiality in India.</p> <p>CO₅: Knowing about National Tourism Policy for promotion of tourism in India. Using the information on factors (Historical, natural, socio-cultural and economic; motivating factors for pilgrimages) to plan destination marketing; tourism products; niche tourism planning; tourism impact assessment, sustainable tourism, Information Technology and Tourism, Tour operations planning and guiding.</p> <p>CO₆: Understanding increasing global tourism on national platform, etc.</p>
GE-3 : GE3T: Rural Development (Option-2)	Rural Development	<p>CO₁: Understanding the concept, basic elements, and measures of level of rural development.</p> <p>CO₂: Knowing the paradigms of rural development: Gandhian approach to rural development Lewis model of economic development, 'big push' theory of development, Myrdal's model of 'spread and backwash effects'.</p> <p>CO₃: Understanding the Area based approach to rural development like Drought prone area programmes, PMGSY, SJSY, MNREGA, Jan Dhan Yojana.</p> <p>CO₄: Developing the idea of Rural Governance including Panchayati Raj System and rural development policies and Programmes in India.</p> <p>CO₅: Developing an idea about target group approach to rural development.</p> <p>CO₆: Gaining the knowledge about Rural Infrastructural Programmes and Development Programmes for Women and children in India.</p> <p>CO₇: Knowing the Rural Development Policies and Programmes in India throughout the time.</p>
B.Sc. (General) Semester-III		
CORE COURSE		
GEOG: DSC-1C (CC- 3): DSC1CT: Maps and Diagrams	DSC1CT: Maps and Diagrams	<p>CO₁: Developing the theoretical and practical idea, techniques and applications of different types of scale like linear, diagonal and vernier.</p> <p>CO₂: Acquiring knowledge about principles, techniques and applications of different types of map projection.</p> <p>CO₃: Gaining knowledge about topographical maps and apply this knowledge in ground surface.</p> <p>CO₄: Lessons on cartograms like pie graph, bar graph, age-sex pyramid, etc.</p> <p>CO₅: Brings direct interaction of different types of surveying instruments like Prismatic Compass and Dumpy level with environment.</p> <p>CO₆: Learning to draw many cartography diagram and apply this is in different statistical data.</p> <p>CO₇: Understanding the appropriate technique for graphical presentation of a data to their field work.</p> <p>CO₈: Drawing the knowledge about primary and secondary data collection helps them to prepare their survey report.</p> <p>CO₉: Fieldwork provides an opportunity for students to develop their sensitivity to and appreciation of a wide range of different environments.</p>
	DSC1DP: Cartographic Techniques (Lab)	

Course and Programme Outcomes & Programme Specific Outcomes

SKILL ENHANCEMENT COURSE (SEC)		
GEOG: SEC-1: SEC1T: Remote Sensing	SEC1T: Remote Sensing	<p>CO₁: Knowing about concept and principles of remote sensing, sensor, resolutions and image referencing schemes.</p> <p>CO₂: Understanding the satellite remote sensing and knowing the techniques for the preparation of maps using satellite data.</p> <p>CO₃: Understanding the image processing and developing the idea about satellite image interpretation.</p> <p>CO₄: Enhancement of skill to use digital satellite data using software.</p> <p>CO₅: Interpretation of maps and compare with ground realities.</p>
GEOG: SEC-1: SEC1T: Geographic Information System	SEC1T: Geographic Information System	<p>CO₁: Knowing about concept and components of Geographical Information System.</p> <p>CO₂: Understanding the Global Positioning System.</p> <p>CO₃: Understanding the GIS Data Structures.</p> <p>CO₄: Developing an idea about GIS Data Analysis.</p> <p>CO₅: Knowing about application of GIS.</p> <p>CO₆: Interpreting satellite imagery and understanding the preparation of false color composites from them.</p> <p>CO₇: Training in the use Geographic Information System (GIS) software for contemporary mapping skills.</p> <p>CO₈: Analyzing and interpreting remotely sensed satellite images and aerial photographs in order to understand topographical and cultural variations on the Earth's surface.</p> <p>CO₉: Conducting field excursions and preparation of field report on research on problem in different areas of India</p> <p>CO₁₀: Applying GIS to the preparation of thematic maps.</p> <p>CO₁₁: Using GNSS.</p>

Course and Programme Outcomes & Programme Specific Outcomes

✍ Course and Programme Outcomes & Programme Specific Outcomes ✍		
B.Sc. (Honours) Semester-IV		
Course Code & Title	Course Segment with Sub-title	Course Outcome
CORE COURSE [For Mother Discipline]		
GEOH: CC-8: C8T: Regional Planning and Development	Unit I: Regional Planning	CO1: Knowledge about identification, interpretation of types of regions as an integral part of geographical study. CO2: Knowledge about identification of backward regions and possible solutions for its development. CO3: Knowing about delineation of formal regions by weighted index method and also delineation of functional regions by breaking point analysis. CO4: Gaining knowledge about measuring inequality by Location Quotient, and also measuring regional disparity by Sopher Index CO5: Gaining knowledge about evolution and types of regional planning. CO6: Developing an idea about choice of a region for planning. CO7: Building up an idea about theories and models for regional planning. CO8: Comprehension and understanding of different models and theories for integrated regional development. CO9: Analysing indicators for the measurement of socio – economic regional development. CO10: Knowing about measuring development indicators. CO11: Appreciating the varied aspects of development and regional disparity, in order to formulate measures of balanced development. CO12: Analyzing the concept of regions and regionalization. CO13: Studying typical physiographic, planning, arid and biotic regions of India. Understanding the detailed geography of India.
	Unit I: Regional Development	(Continued from Unit I: Regional Planning)
GEOH: CC-9 : C9T: Economic Geography	Unit I: Concepts	CO1: Understanding the fundamental principles of Economic Geography. CO2: Examining the significance and relevance of theories in relation to the location of different economic activities. CO3: Understanding the concept of economic activity, factors affecting location of economic activity. CO4: Gaining knowledge about different types and utilities of primary activities, secondary activities and tertiary activities. CO5: Assessing the significance of Economic Geography, the concept of economic man and theories of choice. CO6: Analyzing the factors of location of agriculture and industries. CO7: Analyzing map and interpret data on production, economic indices, transport network and flows. CO8: Understanding the establishment and roles of International agreements and trade blocs like GATT and OPEC.
	Unit II: Economic Activities	(Continued from Unit I: Concepts)

Course and Programme Outcomes & Programme Specific Outcomes

GEOH: CC-10 : C10T & C10P: Environmental Geography	C10T: Environmental Geography	<p>CO₁: Gaining knowledge about concept, scope of environmental geography and components of environment.</p> <p>CO₂: Understanding the dynamics of man–environment relationship.</p> <p>CO₃: Building up an idea about structural and functional dimensions of ecosystem.</p> <p>CO₄: Examining the distribution, utilization and management of natural resources base.</p> <p>CO₅: Assessment of planning, policies and programmes related to environment resources.</p> <p>CO₆: Preparation and interpretation of various inventories on environment problems.</p>
	C10P: Environment Geography Lab	<p>CO₁: Gaining the knowledge to prepare the questionnaire for perception survey on any environmental problems.</p> <p>CO₂: Understanding the techniques for preparation of check-list for Environmental Impact Assessment of an urban /industrial project.</p> <p>CO₃: Knowing the quality assessment of soil using field kit.</p> <p>CO₄: Gaining interpretation knowledge of air quality using CPCB / WBPCB data.</p>
SKILL ENHANCEMENT COURSE (SEC) [For Mother Discipline]		
GEOH: SEC-2: SEC2T: Research Methods	SEC-2T: Research Methods (Option-1)	<p>CO₁: Understanding the concepts, characteristics, types, ethics and needs of research.</p> <p>CO₂: Assessing the types and approaches to research in geography.</p> <p>CO₃: Understanding different tools and techniques in geographical research.</p> <p>CO₄: Conducting proper field work for the collection of primary data to bring out grass - root realities.</p> <p>CO₅: Preparing the suitable field report based on field data.</p> <p>CO₆: Learning the significance of field work in geographical studies.</p> <p>CO₇: Understanding the meaning of field and identifying the case study.</p> <p>CO₈: Knowing about different types of field techniques.</p> <p>CO₉: Developing an idea about research problems.</p> <p>CO₁₀: Having expertise in identification of area of study, methodology, quantitative and quantitative analysis, and conclusions to be drawn about the area – fundamental to geographical research.</p> <p>CO₁₁: Handling logistics and other emergencies on field/ research.</p> <p>CO₁₂: Developing skills in photography, mapping and video recording.</p>
GEOH: SEC-2: SEC2T: Advanced Spatial Statistical Techniques	SEC2T: Advanced Spatial Statistical Techniques (Option-2)	<p>CO₁: Understanding the Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their geographical applications.</p> <p>CO₂: Making sampling plans for spatial and non-spatial data and sampling estimates for large and small samples tests involving means and proportions.</p> <p>CO₃: Understanding and applications of Correlation and Regression Analysis in Geography and Spatial Science.</p> <p>CO₄: Understanding and applications of Time Series Analysis in Geographical Study or Researches.</p> <p>CO₅: Upon completion of this course, the students get the benefit of having strong mathematical and statistical analytical skills.</p>
GENERIC ELECTIVE (GE) COURSE [Interdisciplinary for other department]		

Course and Programme Outcomes & Programme Specific Outcomes

GE-4: GE4T: : Regional Development	GE4T: Regional Development	<p>CO₁: Knowledge about identification, interpretation of types of regions as an integral part of geographical study.</p> <p>CO₂: Knowledge about identification of backward regions and possible solutions for its development.</p> <p>CO₃: Knowing about delineation of formal regions by weighted index method and also delineation of functional regions by breaking point analysis.</p> <p>CO₄: Gaining knowledge about measuring inequality by Location Quotient, and also measuring regional disparity by Sopher Index</p> <p>CO₅: Gaining knowledge about evolution and types of regional planning.</p> <p>CO₆: Developing an idea about choice of a region for planning.</p> <p>CO₇: Building up an idea about theories and models for regional planning.</p> <p>CO₈: Comprehension and understanding of different models and theories for integrated regional development.</p> <p>CO₉: Analysing indicators for the measurement of socio – economic regional development.</p> <p>CO₁₀: Knowing about measuring development indicators.</p> <p>CO₁₁: Appreciating the varied aspects of development and regional disparity, in order to formulate measures of balanced development.</p>
GE-4 : GE4T: Sustainable Development	GE4T: Sustainable Development	<p>CO₁: Gaining the knowledge about historical background, definition, components and limitations of Sustainable Development.</p> <p>CO₂: Understanding the Millennium Development Goals on international and national scales of strategies.</p> <p>CO₃: Assessment of need from different ecosystems for Sustainable Regional Development.</p> <p>CO₃: Developing the idea of Inclusive Development with respect to education and health.</p> <p>CO₄: Assessment of policies and global cooperation for sustainable development with respect to climate change.</p> <p>CO₅: Estimation of the role of higher education in sustainable development.</p> <p>CO₆: Understanding the Sustainable Development Policies and Programmes over time.</p> <p>CO₇: Assessment of the financial issues for Sustainable Development.</p> <p>CO₈: Understanding the Good Governance for sustainable development.</p> <p>CO₉: Assessment of National Environmental Policy and clean development mechanism.</p> <p>CO₁₀: Developing an idea on sustainable regional resource development and livelihood security.</p>

B.Sc. (General) Semester-IV

CORE COURSE

GEOG: DSC-1D (CC-4): DSC1DT: Environmental Geography	DSC1DT: Environmental Geography	<p>CO₁: Gaining knowledge about concept, scope of environmental geography and components of environment.</p> <p>CO₂: Understanding the dynamics of man–environment relationship.</p> <p>CO₃: Building up an idea about structural and functional dimensions of ecosystem.</p> <p>CO₄: Examining the distribution, utilization and management of natural resources base.</p> <p>CO₅: Assessment of planning, policies and programmes related to environment resources.</p> <p>CO₆: Preparation and interpretation of various inventories on environment problems.</p>
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Course and Programme Outcomes & Programme Specific Outcomes

SKILL ENHANCEMENT COURSE (SEC)		
GEOG: SEC-2: SEC2T: Regional Planning and Development	SEC2T: Regional Planning and Development (Option-1)	<p>CO1: Knowledge about identification, interpretation of types of regions as an integral part of geographical study.</p> <p>CO2: Knowledge about identification of backward regions and possible solutions for its development.</p> <p>CO3: Knowing about delineation of formal regions by weighted index method and also delineation of functional regions by breaking point analysis.</p> <p>CO4: Gaining knowledge about measuring inequality by Location Quotient, and also measuring regional disparity by Sopher Index</p> <p>CO5: Gaining knowledge about evolution and types of regional planning.</p> <p>CO6: Developing an idea about choice of a region for planning.</p> <p>CO7: Building up an idea about theories and models for regional planning.</p> <p>CO8: Comprehension and understanding of different models and theories for integrated regional development.</p> <p>CO9: Analysing indicators for the measurement of socio – economic regional development.</p> <p>CO10: Knowing about measuring development indicators.</p> <p>CO11: Appreciating the varied aspects of development and regional disparity, in order to formulate measures of balanced development.</p>
GEOG: SEC-2: SEC2T: Geographic Information System	SEC2T: Computer Basics (Option-2)	<p>CO1: Drawing a comprehensive knowledge of fundamentals of computer application.</p> <p>CO2: Understanding the representation and computation of data using statistical techniques, bivariate analysis and its representation.</p> <p>CO3: Making the comprehension of representation and interpretation of the results.</p> <p>CO4: Having the skills from theory to exercise using Microsoft excel and SPSS regarding the basic statistical computation.</p> <p>CO5: Laying the foundation for software-based computing skills.</p> <p>CO6: Upon completion, the students get adequate level of digital skills to do statistical analysis and small scale study or research.</p>

Course and Programme Outcomes & Programme Specific Outcomes

✂ Course and Programme Outcomes & Programme Specific Outcomes ✂				
B.Sc. (Honours) Semester-V				
Course Code & Title	Course Segment with Sub-title	Course Outcome		
CORE COURSE [For Mother Discipline]				
GEOH: CC-11: C11T & C11P: Field Work and Research Methodology	C11T: Field Work and Research Methodology	Unit I: Research Methodology	<p>CO₁: Understanding the concepts, characteristics, types and needs of research.</p> <p>CO₂: Assessing the types and approaches to research in geography.</p> <p>CO₃: Understanding different tools and techniques in geographical research.</p> <p>CO₄: Conducting proper field work for the collection of primary data to bring out grass - root realities.</p> <p>CO₅: Preparing the suitable field report based on field data.</p> <p>CO₆: Learning the significance of field work in geographical studies.</p> <p>CO₇: Understanding the meaning of field and identifying the case study.</p> <p>CO₈: Knowing about different types of field techniques.</p> <p>CO₉: Developing an idea about research problems.</p> <p>CO₁₀: Having expertise in identification of area of study, methodology, quantitative and quantitative analysis, and conclusions to be drawn about the area – fundamental to geographical research.</p> <p>CO₁₁: Handling logistics and other emergencies on field/ research.</p> <p>CO₁₂: Developing skills in photography, mapping and video recording.</p> <p>CO₁₃: Developing skills in Landscape Survey and Research.</p> <p>CO₁₄: Developing knowledge about quality enhancement of any research in geography.</p> <p>CO₁₅: Building up an idea about the ethics for research as well as field work.</p>	
	Unit II: Fieldwork	C11P: Research Methodology and Field Work Lab		
GEOH: CC-12 : C12T & C12P: Remote Sensing and GIS	C12T: Remote Sensing and GIS			Unit I: Remote Sensing
	Unit II: Geographical Information Systems and Global Navigation Satellite System			

Course and Programme Outcomes & Programme Specific Outcomes

	C12 P: Remote Sensing and GIS Lab	<p>CO₁: Giving the fundamental and some advanced knowledge of spacebased remote sensing and GIS.</p> <p>CO₂: Drawing an in-depth understanding of remote sensing and GIS.</p> <p>CO₄: Developing the ideas of GIS and image-based information.</p> <p>CO₅: Preparation of maps using satellite data.</p> <p>CO₆: Interpretation of maps and compare with ground realities.</p> <p>CO₇: Upon completion of this course, students get benefit from these baseline concepts to further increase their knowledge.</p>
DISCIPLINE SPECIFIC ELECTIVES COURSE (DSE) [For Mother Discipline]		
GEOH: DSE-1: DSE1T: Hydrology and Oceanography (Option-1)	Unit-1: Hydrology	<p>CO₁: Understanding the basic concepts of Hydrology and Oceanography.</p> <p>CO₂: Evaluate the variations of global hydrological cycle.</p> <p>CO₃: Assessment of significance of ground water quality and its circulation.</p> <p>CO₄: Studying the behavior and characteristics of the global oceans.</p> <p>CO₅: Understanding the characteristics of global ocean circulation.</p>
	Unit-2: Oceanography	<p>CO₆: Emphasizing the significance of groundwater quality and its circulation</p> <p>CO₇: Understanding role of the global hydrological cycle.</p> <p>CO₈: Realizing the importance of water conservation.</p> <p>CO₉: Identifying marine resources and characteristics of ocean waters.</p> <p>CO₁₀: Interpreting hydrological and rainfall dispersion graphs and diagrams.</p>
GEOH: DSE-1: DSE1T: Geography of Health and Wellbeing (Option-2)	DSE1T: Geography of Health and Wellbeing	<p>CO₁: Understanding the concept, scope and trends of Geography of Health in relation to allied disciplines</p> <p>CO₂: Estimating the linkages of health with environment and development</p> <p>CO₃: Understanding the geographical perspective of health in developed and developing countries</p> <p>CO₄: Analysing the factors and measurable parameters influencing health and wellbeing</p> <p>CO₅: Developing idea of health in relation to population dynamics and urbanization.</p> <p>CO₆: Understanding the health exposure and risks.</p> <p>CO₇: Estimating Health and disease pattern in Environmental Context with special reference to India</p> <p>CO₈: Assessing climate change and its relationship with health and disease pattern.</p> <p>CO₉: Assessing WHO programmes of health and wellbeing.</p>
GEOH: DSE-1: DSE1T: Cultural and Settlement Geography (Option-3)	Unit I: Cultural Geography	<p>CO₁: Understanding the fundamental concepts of cultural geography.</p> <p>CO₂: Assessing the characteristics of global cultural phenomena.</p> <p>CO₃: Assessing the spatio-temporal variations in distribution of rural settlement.</p> <p>CO₄: Understanding the different theories influencing urban morphology. Understand the scope and content of cultural geography</p> <p>CO₅: Tracing out the development of cultural geography in relation to allied disciplines</p> <p>CO₆: Understanding the concept of cultural hearth and realm, cultural diffusion, diffusion of religion</p> <p>CO₇: Developing an understanding of cultural segregation and cultural diversity, technology and development</p> <p>CO₈: Learning about the various races and racial groups of the world</p>

Course and Programme Outcomes & Programme Specific Outcomes

	Unit I: Settlement Geography	<p>CO₉: Identifying the cultural regions of India CO₁₀: Acquiring knowledge about rural and urban settlements. CO₁₁: Analyze the morphology and functions of rural and urban settlements. CO₁₂: Learning the rural house types, census categories of rural settlements and idea of social segregation</p>
GEOH: DSE-2: DSE2T: Resource Geography	DSE2T: Resource Geography	<p>CO₁: Understanding the concept and classification of resources. CO₂: Understanding the approaches of resource utilization, management and development. CO₃: Assessing the distribution, utilization and management of different resources. CO₄: Appreciating the significance of resources and assessing the pressure on resources. CO₅: Analyzing the problems of resource depletion with special reference to forests, water, minerals and fossil fuels. CO₆: Understanding the distribution, utilization, problems and management of metallic and non-metallic mineral resources throughout the globe and nation. CO₇: Analyzing the contemporary energy crisis and assess the future scenario CO₈: Understanding the concept of Limits to Growth, resource sharing and sustainable use of resources. CO₉: Understanding the components and efforts and initiatives of sustainable development. CO₁₀: Learning to compute HDI, GDI, etc.</p>
GEOH: DSE-2: DSE2T: Fluvial Geomorphology	DSE2T: Fluvial Geomorphology	<p>CO₁: Examining the mechanisms and controls and functioning of rivers. CO₂: Interpretation of fluvial geomorphological maps and properties and its application in geographical research. CO₃: Assessing the anthropological factors operating and affecting landforms development. CO₄: Learning about the mechanism and working principle of fluvial geomorphic processes in details that are operating since historical time to shape present earth-surface. CO₅: Building up an understanding role of humans in shaping earth surface and regulating fluvial processes and their outcome on fluvial systems. CO₆: Considering the applied roles of Fluvial Geomorphology in sustainable resource management.</p>
GEOH: DSE-2: DSE2T: Social Geography	DSE2T: Social Geography	<p>CO₁: Assessment of various components of Social geography. CO₂: Understanding social space and the anthropogenic factors influencing it. CO₃: Assessing and examining the role of various social policies in Indian context. CO₄: Evaluating the social issues such as- racism, cast conflict, social distance. CO₅: Understanding the causes of social inequality and their impact on society. CO₆: Understanding indicators of social well-being and quality of life. CO₇: Understanding the social space, social groups and intra-urban mobility. CO₈: Estimating socio-cultural region of the world and India. CO₉: Learning about rural settlement morphology, urban-industrial landscape. CO₁₀: Analysng the social set-up in Indian villages.</p>

Course and Programme Outcomes & Programme Specific Outcomes

B.Sc. (General) Semester-V		
CORE COURSE		
GEOG: DSC: DSE-1: DSE1T: Geography of India (Option-1)	DSE1T: Geography of India	<p>CO1: Understanding the physical and socio – cultural set up and profile of our country, India.</p> <p>CO2: Making the base knowledge about nature, types and distribution of Indian soil, vegetation and climate.</p> <p>CO3: Understanding the fate-fortune scenario of Indian population and related policy over time.</p> <p>CO4: Appraisal of distribution, utilization and resource endowment of the country.</p> <p>CO5: Developing the concepts of regionalization in India from physiographic, economic and socio-cultural points of view.</p> <p>CO6: Making the analytical knowledge base about Green Revolution in India and growing importance of Automobile Industry and Information Technology throughout the nation.</p>
GEOG: DSC: DSE-1: DSE1T: Disaster Management (Option-2)	DSE1T: Disaster Management	<p>CO1: Understanding the fundamental concepts of hazard, disaster and extreme events.</p> <p>CO2: Assess risk, perception and vulnerability with respect to hazards.</p> <p>CO3: Prepare hazard zonation maps with the help of proper tools, techniques and technology.</p> <p>CO4: Assessing the nature, impact and management of major natural and man-made hazards.</p> <p>CO5: Analysing the roles of local bodies, panchayats and educational institutions on hazard mitigation: Awareness and action programmes</p> <p>CO6: Developing concepts and skills regarding mitigation measures concerning various hazards.</p>
GEOG: DSC: DSE-1: DSE1T: Soil & Biogeography (Option-3)	DSE1T: Soil & Biogeography	<p>CO1: Evaluating soil as a basic resource and also its distribution, problems and management.</p> <p>CO2: Identifying the basic concepts of biosphere.</p> <p>CO3: Understanding the dynamics of vegetal growth and climate.</p> <p>CO4: Assessing different aspects of floral and faunal provinces.</p> <p>CO5: Having knowledge about the character and profile of different soil types.</p> <p>CO6: Understanding the impact of man as an active agent of soil transformation, erosion and degradation.</p> <p>CO7: Recognizing land capability and classify it.</p> <p>CO8: 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.</p> <p>CO9: Understanding the varied ecosystems and classify them.</p> <p>CO10: Recognizing the significance of biogeochemical cycles and biodiversity.</p> <p>CO11: Comprehending the devastating impact of deforestation.</p> <p>CO12: Identifying soil types and derive their pH.</p>

Course and Programme Outcomes & Programme Specific Outcomes

SKILL ENHANCEMENT COURSE (SEC)		
<p>GEOG: SEC-3: SEC3T & P: Remote Sensing & GPS Based Project Work</p>	<p>SEC3T & P: Remote Sensing & GPS Based Project Work</p>	<p>CO1: Understanding the concept and development of Remote Sensing and knowledge achieving about the platforms and its types.</p> <p>CO2: Understanding the Principles, Types and Geometry of Aerial Photography.</p> <p>CO3: Understanding the Satellite Remote Sensing and its principles;</p> <p>CO4: Estimating the EMR Interaction with Atmosphere and Earth Surface; Satellites (Landsat and IRS) and Sensors.</p> <p>CO5: Interpretating and applying the Remote Sensing specifically in Land use/ Land Cover analysis.</p> <p>CO5: Making the understanding about Global Positioning System (GPS) and its principles and uses</p> <p>CO6: Enhancing the capability and skill to conduct the Field/ Project Work and make/ prepare the Field/ Project Report with the help of Remote Sensing and GPS.</p>

Course and Programme Outcomes & Programme Specific Outcomes

✍ Course and Programme Outcomes & Programme Specific Outcomes ✍			
B.Sc. (Honours) Semester-VI			
Course Code & Title	Course Segment with Sub-title	Course Outcome	
CORE COURSE [For Mother Discipline]			
GEOH: CC-13: C13T: Evolution of Geographical Thought	C13T: Evolution of Geographical Thought	Unit I: Nature of Pre Modern Geography	<p>CO1: The course incorporated the fundamental concepts of geographical thought.</p> <p>CO2: Appreciation of evolution of geographical thought through time.</p> <p>CO3: Understanding the paradigm shift in geographical thinking in different regions of the world.</p> <p>CO4: Assessing the past and future trends of development of different ideologies and establishing relationship of Geography with other traditional, upgraded and contemporary disciplines</p> <p>CO5: It includes the premier concepts of geography at the time of its emergence to the past century (20th century).</p> <p>CO6: Students will learn about the philosophical background that guides the approaches and ways of thinking to design teaching-learning and research under different discourses of Geography.</p> <p>CO7: It aims to achieve a clear insight into theoretical foundation of the subject that is articulated among different courses and guides to design objectives and methodological framework of geographical enquiry.</p> <p>CO8: This understanding helps the learners to locate themselves in the wide and dynamic philosophical domain of the discipline and help them to concentrate towards developing geography as a science of holistic synthesis.</p> <p>CO9: Upon completion of this course, the students would have a comprehensive idea of the fundamental nature of Geography and how it evolves with time.</p>
		Unit II: Foundation of Modern Geography & Recent Trends	
GEOH: CC-14 : C14T & C14P: Disaster Management	C14T: Disaster Management	Unit I: Concept	<p>CO1: Understanding the fundamental concepts of hazard, disaster and extreme events.</p> <p>CO2: Assess risk, perception and vulnerability with respect to hazards.</p> <p>CO3: Prepare hazard zonation maps with the help of proper tools, techniques and technology.</p> <p>CO4: Assessing the nature, impact and management of major natural and man-made hazards.</p> <p>CO5: Preparation of field report on disaster and risk management.</p> <p>CO6: Analysing the roles of local bodies, panchayats and educational</p>
		Unit II: Disaster Case Studies	

Course and Programme Outcomes & Programme Specific Outcomes

	C14P: Disaster Management Based Project Book	institutions on hazard mitigation: Awareness and action programmes CO7: Developing concepts and skills regarding mitigation measures concerning various hazards.
DISCIPLINE SPECIFIC ELECTIVES COURSE (DSE) [For Mother Discipline]		
GEOH: DSE-3: DSE3T: Population Geography (Option-1)	Unit-1: Unit-2:	<p>CO1: Establishing population studies as a distinct field of human geography.</p> <p>CO2: Understanding the key concepts and components of population along with its drivers.</p> <p>CO3: Examining population dynamics and characteristics with contemporary issues.</p> <p>CO4: Through this paper students will learn the various aspects of population growth process, its impact on economy, society and politics.</p> <p>CO5: Various policy regarding the control and development of human resources, their necessity, and outcome will be understood. This understanding will help them to take part in various govt schemes and programmes relating to population issues.</p> <p>CO6: The course is designed to give an account of the population and development debate including some of the measures of human development measurements.</p> <p>CO7: Students will also aware about the migration pattern of people from one place to other.</p> <p>CO8: Any planning activities relating to economy and population need such knowledge to proper implementation and outcome.</p>
GEOH: DSE-3: DSE3T: Political Geography (Option-2)	DSE3T: Political Geography	<p>CO1: Understanding the concept, scope and trends of Political Geography in relation to allied disciplines</p> <p>CO2: Understanding the concepts of nation, state and geo – political theories.</p> <p>CO3: Assessing the different dimensions of electoral geography and resource conflicts.</p> <p>CO4: Analyzing the politics of displacement, focussing on dams and SEZ.</p> <p>CO5: Students will develop their understanding on politics of space and spatial patterns of political and economic power distribution.</p> <p>CO6: This course will enable the Government in India based on the principle of regional disparities in India.</p> <p>CO7: They will also know about the nature of conflict at national and global level centered on water and power resources.</p> <p>CO8: They will develop their interest in analyzing factors and local as well as global implications of economic and political agglomerations in the form of economic and political blocs.</p> <p>CO9: This course is focused on the fundamental concepts of globalization and its overall impacts on agriculture, industry, trade and culture.</p>

Course and Programme Outcomes & Programme Specific Outcomes

GEOH: DSE-3: DSE3T: Soil and Bio-geography (Option-3)	DSE3T: Soil and Bio-geography	<p>CO₁: Evaluating soil as a basic resource and also its distribution, problems and management.</p> <p>CO₂: Identifying the basic concepts of biosphere.</p> <p>CO₃: Understanding the dynamics of vegetal growth and climate.</p> <p>CO₄: Assessing different aspects of floral and faunal provinces.</p> <p>CO₅: Having knowledge about the character and profile of different soil types.</p> <p>CO₆: Understanding the impact of man as an active agent of soil transformation, erosion and degradation.</p> <p>CO₇: Recognizing land capability and classify it.</p> <p>CO₈: 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.</p> <p>CO₉: Understanding the varied ecosystems and classify them.</p> <p>CO₁₀: Recognizing the significance of biogeochemical cycles and biodiversity.</p> <p>CO₁₁: Comprehending the devastating impact of deforestation.</p> <p>CO₁₂: Identifying soil types and derive their pH.</p>
GEOH: DSE-4: DSE4T: Agricultural Geography (Option-1)	DSE4T: Agricultural Geography	<p>CO₁: Assessing the components of agricultural geography and its determinants.</p> <p>CO₂: Over viewing the Indian and World agricultural regions and systems.</p> <p>CO₃: Understanding agricultural revolutions and food security.</p> <p>CO₄: Understanding about functional integration of various process that results in formation and distribution of different types of soil and their implication of agricultural systems.</p> <p>CO₅: Achieving integrated knowledge on soil and landscape.</p> <p>CO₆: Developing special aptitude on soil survey techniques to analyse spatio-temporal distribution of agricultural systems.</p>
GEOH: DSE-4: DSE4T: Urban Geography (Option-2)	DSE4T: Urban Geography	<p>CO₁: Understand the nature, scope, approaches and recent trends in Urban Geography</p> <p>CO₂: Assessing the past and future trends of urbanization.</p> <p>CO₃: Understanding the fundamentals and patterns of urbanization.</p> <p>CO₄: Learning functional classification of cities and various theories of urban growth and urban hierarchies.</p> <p>CO₅: Understanding the contemporary issues and problems of Delhi, Mumbai, Kolkata and Chennai.</p> <p>CO₆: Tracing out the origin of urban places over time and analyze the factors, stages and characteristics of these places</p> <p>CO₇: Analyzing the theories of urban evolution and growth, Hierarchy of urban settlements</p> <p>CO₈: Understanding the various aspects of urban place : location, site and situation; Rank-size rule and Law of primate city</p> <p>CO₉: Understanding the concept of urban hierarchies</p> <p>CO₁₀: Understanding the patterns of urbanization in developed and developing countries</p> <p>CO₁₁: Understanding the ecological processes of urban growth; urban fringe; city-region</p> <p>CO₁₂: Analyzing the models on city structure</p> <p>CO₁₃: Identifying and analyzing the problems of housing, slums and civic amenities</p> <p>CO₁₄: Understanding the patterns and trends of urbanization in India</p> <p>CO₁₅: Assessing the policies on urbanization in post-liberalized India</p>

Course and Programme Outcomes & Programme Specific Outcomes

GEOH: DSE-4: DSE4T & DSE4P: Project Work (Option-3)	DSE4T & DSE4P: Project Work	CO₂: Understanding knowledge about any project and project work. CO₃: Understanding the methods and methodology for planning, conducting and completing any project work. CO₄: Achieving the knowledge about field, reality, and its planning and development. CO₅: Understanding the importance and relevance of project work. CO₆: Enhancing the skills for any field related work. CO₇: Capability enhancement to manage any problem and issue. CO₈: Making the plan for development and management purpose.
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B.Sc. (General) Semester-VI

CORE COURSE

GEOG: DSC: DSE-2: DSE2T: Economic Geography (Option-1)	DSE2T: Economic Geography	CO₁: Understanding the concept of Economic Geography and various economic activities. CO₂: Understanding the approaches of resource utilization, management and development. CO₃: Assessing the distribution, utilization and management of different resources and establishing the relation among population, development and environment in this 3-tier globe. CO₄: Appreciating the significance of resources and assessing the pressure on resources. CO₅: Analyzing the problems of resource depletion with special reference to forests, water, minerals and fossil fuels. CO₆: Understanding the distribution, utilization, problems and management of metallic and non-metallic mineral resources throughout the globe and nation. CO₇: Analyzing the contemporary energy crisis and assess the future scenario CO₈: Understanding the concept of Limits to Growth, resource sharing and sustainable use of resources. CO₉: Understanding the components and efforts and initiatives of sustainable development.
GEOG: DSC: DSE-2: DSE2T: Urban Geography (Option-2)	DSE2T: Urban Geography	CO₁: Understand the nature, scope, approaches and recent trends in Urban Geography CO₃: Understanding the fundamentals and patterns of urbanization. CO₄: Learning functional classification of cities and various theories of urban growth and urban hierarchies. CO₆: Tracing out the origin of urban places over time and analyze the factors, stages and characteristics of these places CO₇: Analyzing the theories of urban evolution and growth, Hierarchy of urban settlements CO₉: Understanding the concept of urban hierarchies CO₁₀: Understanding the patterns of urbanization in developed and developing countries CO₁₁: Understanding the ecological processes of urban growth; urban fringe; city-region CO₁₂: Analyzing the models on city structure CO₁₃: Identifying and analyzing the problems of housing, slums and civic amenities CO₁₄: Understanding the patterns, trends and policy of urbanization in India

Course and Programme Outcomes & Programme Specific Outcomes

GEOG: DSC: DSE-2: DSE2T: Population Geography (Option-3)	DSE2T: Population Geography	<p>CO₁: Establishing population studies as a distinct field of human geography.</p> <p>CO₂: Understanding the key concepts and components of population along with its drivers.</p> <p>CO₃: Examining population dynamics and characteristics with contemporary issues.</p> <p>CO₄: Through this paper students will learn the various aspects of population growth process, its impact on economy, society and politics.</p> <p>CO₅: Various policy regarding the control and development of human resources, their necessity, and outcome will be understood. This understanding will help them to take part in various govt schemes and programmes relating to population issues.</p> <p>CO₆: The course is designed to give an account of the population and development debate including some of the measures of human development measurements.</p> <p>CO₇: Students will also aware about the migration pattern of people from one place to other.</p> <p>CO₈: Any planning activities relating to economy and population need such knowledge to proper implementation and outcome.</p>
SKILL ENHANCEMENT COURSE (SEC)		
GEOG: SEC-4: SEC4T & P: Field Techniques and Survey Based Project Report	SEC4T: Field Techniques and Survey Based Project Report: Course Content	<p>CO₁: Understanding Field Work in Geographical Studies</p> <p>CO₂: Knowledge achieving about the role, value and ethics of Field-Work.</p> <p>CO₁: Defining the Field and Identifying the Case Study – Rural / Urban / Physical / Human / Environmental.</p> <p>CO₃: Understanding the field techniques – merits, demerits and selection of the appropriate technique; observation (participant / non participant).</p> <p>CO₄: Making questionnaires (Open/ Closed / Structured / Non-Structured); and conducting interview with Special Focus on Focused Group Discussions for Primary data collection;</p> <p>CO₅: Understanding Space Survey Techniques (Transects and Quadrants, Constructing a sketch).</p>
GEOG: SEC-4: SEC4T & P: Field Techniques and Survey Based Project Report	SEC4P: Field Techniques and Survey Based Project Report: Practical	<p>CO₁: Designing the Field Report having the basics as Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.</p> <p>CO₂: Preparing an individual report based on primary and secondary data collected during field work.</p> <p>CO₃: Quality enhancement and skill development regarding any field/ project/ research work.</p>

Course and Programme Outcomes & Programme Specific Outcomes

Programme Outcome (PO) of B.Sc. in Geography	
PO₁	Fostering the ability of the students to encounter practical problems with theoretical knowledge in Geography and Environment.
PO₂	Promotion of research aptitude and field work aptitude as well as laboratory based practical works for the students of Geography.
PO₃	Capacity enhancement of the students in spatial mapping on digital platform for the Geographical research and studies.
PO₄	Orientation of the students of Geography to develop competitive examinations aptitude among them including NET / SET/ and other professional jobs.
PO₅	Preparing students for Higher Academic programmes for institutes of National and International repute.
PO₆	On completion of the B. Sc. in Geography, students are able to get absorbed in various Govt Departments (like planning and developmental commissions, forestry, environmental, and disaster management departments) travel agencies, manufacturing firms, etc. They can be the representative of higher education like M.Sc. in Geography or equivalent for running the career as cartographer (NATMO), surveyor (Survey of India), GIS and Remote Sensing experts, environmental planner, Environment Reporter, urban and regional planner, transportation manager, Teacher/Professor, etc. in near or far future.
PO₇	Instill confidence and develop a sense of identity in facing the real world.
PO₈	Foster cooperation among students enabling them to connect and contribute towards teamwork activities.
PO₉	Develop effective communications skills that promote leadership qualities individually as well as within a group.
PO₁₀	Develop critical thinking and skills that train students to analyze problems and validate real life solutions.
PO₁₁	Prepare objective scientific approach so that students can address research problems in Applied Geography and allied fields.
PO₁₂	Strive towards making enlightened citizens with commitment and empathy to social concerns.
PO₁₃	Inculcate a sense of environmental ethics that focus research and concerns on sustainability.
PO₁₄	Inculcate strong moral and ethical values and a sense of discipline among the students.
PO₁₅	Ensure that the lessons are self-directed and lead to lifelong learning.