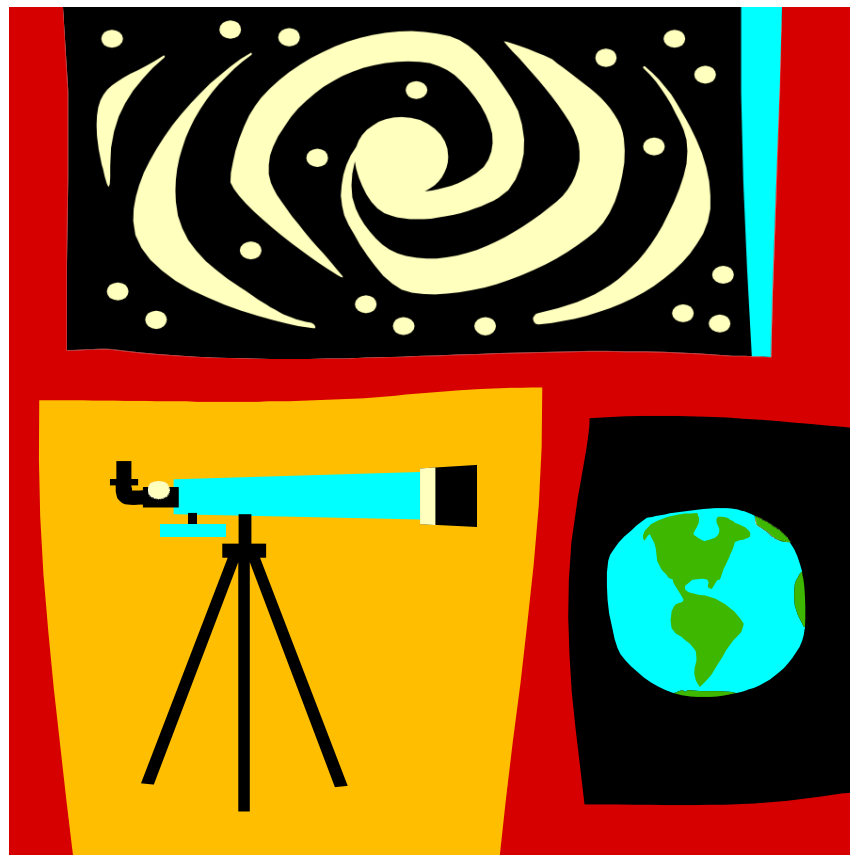


**SHAHID MATANGINI HAZRA
GOVERNMENT GENERAL DEGREE
COLLEGE FOR WOMEN**



LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: GEOGRAPHY

HONOURS COURSE

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **FIRST**

B.Sc. HONOURS

Teacher	Course Title	Units	Contents	Commence ment Date	Classes required	Total Classes
Nabendu Sekhar Kar	C1T	UNIT-I Geotectonics	1. Earth's tectonic and structural evolution with reference to geological time scale	19 Sep 2022	02	10
			2. Earth's interior with special reference to seismology. Isostasy: Models of Airy and Pratt		02	
			3. Plate Tectonics: Processes at constructive, conservative, destructive margins and hotspots; resulting landforms		04	
			4. Folds and Faults—origin and types		02	
Nabendu Sekhar Kar	C1T	UNIT –II Geomorphology	1. Degradational processes: Weathering, mass wasting and resultant landforms	19 Sep 2022	04	12
			2. Processes of entrainment, transportation and deposition by different geomorphic agents. Role of humans in landform development.		04	
			3. Development of river network and landforms on uniclinal and folded structures		04	
Dr. Ina Dhar Roy Dasgupta	C1T	UNIT –II Geomorphology	4. Landforms on igneous rocks with special reference to Granite and Basalt	19 Sep 2022	02	14
			5. Karst landforms: Surface and sub-surface. Coastal processes and landforms.		03	
			6. Glacial and fluvio-glacial processes and landforms; fluvio-glacial landforms		02	
			7. Aeolian and fluvio-aeolian processes and landforms; fluvio-aeolian processes		03	

			8. Models on landscape evolution: Views of Davis, Penck, King and Hack		04	
Dr. Ina Dhar Roy Dasgupta	C2T	Cartographic Techniques	1. Maps: Classification and types. Components of a map	19 Sep 2022	02	15
			2. Concept and application of scales: Plain, comparative, diagonal and vernier		03	
			3. Coordinate systems: Polar and rectangular. Concept of geoid and spheroid		02	
			4. Concept of generating globe. Grids: angular and linear systems of measurement		02	
			5. Bearing: Magnetic and true, whole-circle and reduced		02	
			6. Map projections: Classification, properties and uses. Concept and significance of UTM projection		04	
Nabendu Sekhar Kar	C2T	Cartographic Techniques	7. Basic concepts of surveying and survey equipment: Prismatic compass, dumpy level, theodolite, Abney level, clinometer.	19 Sep 2022	07	11
			8. Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps		04	
Dr. Ina Dhar Roy Dasgupta	C2P	Cartographic Techniques Lab	1. Graphical construction of scales: Plain, comparative, diagonal and vernier	19 Sep 2022	10	20
			2. Construction of projections: Polar Zenithal Stereographic, Simple conic with two standard parallels, Bonne's, Cylindrical Equal Area, and Mercator's		10	
Nabendu Sekhar Kar	C2P	Cartographic Techniques Lab	3 Delineation of drainage basin from Survey of India topographical map. Construction and interpretation of relief profiles (superimposed, projected and composite), relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin	19 Sep 2022	12	15
			4. Correlation between physical and cultural features from Survey of India topographical maps. using transect chart		03	

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **THIRD**

B.Sc. HONOURS

Teacher	Course Title	Units	Contents	Commence ment Date	Classes required	Total Classes
Nabendu Sekhar Kar	C5T	UNIT-I Climatology: Elements of the Atmosphere	1. Nature, composition and layering of the atmosphere	9 Sep 2022	02	09
			2. Insolation: controlling factors. Heat budget of the atmosphere		02	
			3. Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and consequences		03	
			4. Greenhouse effect and importance of ozone layer.		02	
Nabendu Sekhar Kar	C5T	UNIT –II Atmospheric Phenomena and Climatic Classification	1. Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory, collision and coalescence. Forms of precipitation	9 Sep 2022	04	22
			2. Air mass: Typology, origin, characteristics and modification.		02	
			3. Fronts: warm and cold; frontogenesis and frontolysis		02	
			4. Weather: stability and instability; barotropic and baroclinic conditions		02	
			5. Circulation in the atmosphere: Planetary winds, jet stream, index cycle		04	
			6. Tropical and mid-latitude cyclones		02	
			7. Monsoon circulation and mechanism with reference to India		03	
			8. Climatic classification after Köppen, Thornthwaite and Oliver		03	
Dr. Ina Dhar Roy Dasgupta	C6T	UNIT-I Statistical Methods in Geography	1. Importance and significance of Statistics in Geography. Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio), sources of data	9 Sep 2022	02	08
			2. Collection of data and formation of statistical tables		02	

			3. Sampling: Need, types, and significance and methods of random sampling		02	
			4. Theoretical distribution: frequency, cumulative frequency, normal and probability		02	
Dr. Ina Dhar Roy Dasgupta	C6T	UNIT-II Statistical Methods in Geography	1. Central tendency: Mean, median, mode, partition values	9 Sep 2022	02	08
			2. Measures of dispersion range, mean deviation, standard deviation, coefficient of variation		02	
			3. Association and correlation: Rank correlation, product moment correlation		02	
			4. Regression (linear and non-linear) and time series analysis (moving average)		02	
Dr. Ina Dhar Roy Dasgupta	C6P	Statistical Methods in Geography Lab	1. Construction of data matrix with each row representing an aerial unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes	9 Sep 2022	05	16
			2. Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted		03	
			3. Histograms and frequency curve would be prepared on the dataset		02	
			4. From the data matrix a sample set (20%) would be drawn using, random, systematic and stratified methods of sampling and locate the samples on a map with a short note on methods used		04	
			5. Based on of the sample set and using two relevant attributes, a scatter diagram and regression line would be plotted and residual from regression would be mapped with a short interpretation		02	
Dr. Ina Dhar Roy Dasgupta	C7T	UNIT I Geography of India	1. Tectonic and stratigraphic provinces, physiographic divisions	9 Sep 2022	01	17
			2. Climate, soil and vegetation: Characteristics and classification		02	

			3. Population: Distribution, growth, structure and policy		02	
			4. Distribution of population by race, caste, religion, language, tribes and their correlates		04	
			5. Agricultural regions. Green revolution and its consequences		02	
			6. Mineral and power resources distribution and utilisation of iron ore, coal, petroleum, gas		02	
			7. Industrial development: Automobile and information technology		02	
			8. Regionalisation of India: Physiographic (R. L. Singh), Socio-cultural (Sopher) and Economic (Sengupta)		02	
Dr. Ina Dhar Roy Dasgupta	C7T	UNIT II Geography of West Bengal	1. Physical perspectives: Physiographic divisions, forest and water resources	9 Sep 2022	03	10
			2. Population: Growth, distribution and human development		02	
			3. Resources: Mining, agriculture and industries		02	
			4. Regional Problem: Darjeeling Hills, Jangalmahal and Sundarban		03	
Nabendu Sekhar Kar	SEC- 1T	Coastal Management	1. Components of a coastal zone. Coastal morphodynamic variables and their role in evolution of coastal forms	9 Sep 2022	03	16
			2. Environmental impacts and management of mining, oil exploration, salt manufacturing, land reclamation and tourism		04	
			3. Coastal hazards and their management using structural and non-structural measures: Erosion, flood, sand encroachment, dune degeneration, estuarine sedimentation and pollution		05	
			4. Principles of Coastal Zone Management. Exclusive Economic Zone and Coastal Regulation Zones with reference to India		04	

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **FIFTH**

B.Sc. HONOURS

Teacher	Course Title	Units	Contents	Commencement Date	Classes required	Total Classes
Dr. Ina Dhar Roy Dasgupta	C11T	UNIT-I Research Methodology	1. Research in Geography: Meaning, types and significance	01 Oct 2022	02	10
			2. Literature review and formulation of research design		02	
			3. Defining research problem, objectives and hypothesis. Research materials and methods		04	
			4. Techniques of writing scientific reports: Preparing notes, references, bibliography, abstract and keywords		02	
Dr. Ina Dhar Roy Dasgupta	C11T	UNIT –II Fieldwork	1. Fieldwork in Geographical studies – Role and significance. Selection of study area and objectives. Pre-field preparations. Ethics of fieldwork	01 Oct 2022	04	16
			2. Field techniques and tools: Observation (participant, non-participant), questionnaires (open, closed, structured, non-structured). Interview with special reference to focused group discussions		04	
			3. Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording		04	
			4. Positioning and collection of samples. Preparation of inventory from field data. Post-field tasks		04	
Dr. Ina Dhar Roy Dasgupta/Na bendu Sekhar Kar	C11P	Research Methodology and Field Work Lab	1. Each student will prepare an individual report based on primary data collected from field survey and secondary data collected from different sources for either a rural area (mouza) or an urban area (municipal	01 Oct 2022 (Pre-field, Syn-field, Post-field)	20 [Excluding days of field work]	20 [Excluding days of field work]

			<p>ward) based on cadastral or municipal maps to study specific problems.</p> <p>2. The duration of the field work shall not exceed 10 days</p> <p>3. The report should be hand written in English on A4 size paper in candidate's own words within 5,000 to 8,000 words excluding figures, tables, photographs, maps, references and appendices</p> <p>4. A copy of the bound report, duly signed by the concerned teacher, should be submitted</p>			
Nabendu Sekhar Kar	C12T	UNIT – I Remote Sensing	<p>1 Principles of Remote Sensing (RS): Types of RS satellites and sensors</p> <p>2. Sensor resolutions and their applications with reference to IRS and Landsat missions, image referencing schemes and data acquisition</p> <p>3. Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data</p>	01 Oct 2022	03 03 03	09
Nabendu Sekhar Kar	C12T	UNIT – II GIS & GNSS	<p>1. GIS data structures: types (spatial and non-spatial), raster and vector</p> <p>2. Principles of preparing attribute tables, data manipulation and overlay analysis</p> <p>3. Principles of GNSS positioning and waypoint collection</p> <p>4. Transferring of waypoints to GIS. Area and length calculations from GNSS data</p>	01 Oct 2022	06 04 01 04	15
Nabendu Sekhar Kar	C12P	Remote Sensing and GIS Lab	<p>1. Georeferencing of maps and images</p> <p>2. Image enhancement. Preparation of reflectance libraries of LULC features across different image bands of IRS L3 or Landsat OLI data</p> <p>3. Image classification, post-classification analysis and class editing</p> <p>4. Digitisation of features. Data attachment, overlay and preparation of thematic map</p>	01 Oct 2022	03 03 08 06	20

Dr. Ina Dhar Roy Dasgupta	DSE1T	Geography of Health and Wellbeing	1. Definition, scope and trends of Geography of Health in relation to allied disciplines	01 Oct 2022	01	18
			2. Linkages of health with environment and development		01	
			3. Geographical perspective of health in developed and developing countries		01	
			4. Factors influencing health and wellbeing		01	
			5. Parameters of health and wellbeing		01	
			6. Health in relation to population dynamics and urbanization		01	
			7. Health in relation to inequality, malnutrition and poverty		01	
			8. Exposure and Health Risks: Air pollution; household wastes; water; housing; workplace		02	
			9. Health and disease pattern in Environmental Context with special reference to India		01	
			10. Types of Diseases and their regional pattern (Communicable and Lifestyle related diseases)		02	
			11. Climate change and morbidity. Biological agents of disease		02	
			12. WHO programmes of health and wellbeing		04	
Nabendu Sekhar Kar	DSE2T	UNIT-I Social Geography	1. Social Geography: Concept, Origin, Nature and Scope	01 Oct 2022	01	12
			2. Concept of Space, Social differentiation and stratification; social processes		02	
			3. Social Categories: Caste, Class, Religion, Race and Gender and their Spatial distribution		02	
			4. Basis of Social region formation; Evolution of social-cultural regions of India		02	
			5. Peopling Process of India: Technology and Occupational Change; Migration		02	
			6. Social groups, social behaviour and contemporary social environmental issues with special reference to India		03	

Nabendu Sekhar Kar	DSE2T	UNIT-II Social Geography	1. Concept of Social Well-being, Quality of Life, Gender and Social Well-being	01 Oct 2022	01	06
			2. Measures of Social Well- being: Healthcare, Education, Housing, Gender Disparity		01	
			3. Social Geographies of Inclusion and Exclusion, Slums, Gated Communities, Communal Conflicts and Crime		01	
			4. Social Planning during the Five Year Plans in India		01	
			5. Social Policies in India: Education and Health		01	
			6. Social Impact Assessment (SIA): Concept and importance		01	



GENERAL COURSE

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **FIRST**

B.Sc. GENERAL

Teacher	Course Title	Units	Contents	Commence ment Date	Classes required	Total Classes
Dr. Ina Dhar Roy Dasgupta	DSC 1AT	Physical Geography	1. Physical Geography – Definition and Scope, Components of Earth System	19 Sep 2022	02	20
			2. Atmosphere – Heat Balance, Global Circulation Pattern, Tropical Cyclones, Monsoon, Climatic Classification (Koppen)		08	
			3 Lithosphere – Internal Structure of Earth based on Seismic Evidence, Plate Tectonics and its Associated Features		04	
			4. Fluvial Cycle of Erosion – Davis and Penck		02	
			5. Hydrosphere – Hydrological Cycle, Ocean Bottom Relief Features, Tides and Currents		04	

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **THIRD**

B.SC. GENERAL

Teacher	Course Title	Units	Contents	Commencement Date	Classes required	Total Classes
Dr. Ina Dhar Roy Dasgupta	DSC 1CT	UNIT – I Maps & Diagrams: Scale & Cartograms	1. Maps – Types, Elements and Uses	9 Sep 2022	01	14
			2. Map Scale – Types and Application, Reading Distances on a Map		02	
			3. Construction of Linear and Comparative (Unit)		02	
			4. Cartograms: Circle, Square and Pie graph		02	
			5. Age-Sex Pyramid, Dependency Ratio		01	
			6. Population Maps and Diagrams: Population Density by Choropleth, Distribution by Dot and Sphere		02	
			7. Representation of Data – Symbols, Dots, Choropleth, Isopleth and Flow Diagrams, Interpretation of Thematic Maps		04	
		UNIT – II Map Projections	1. Map Projections: Nature and Classification	9 Sep 2022	01	06
			2. Principles, Theories, Criteria for Choice of Projections; Construction and Properties of select Map Projections: Conical projection with two standard parallel, Cylindrical Equal Area, Polar Zenithal Stereographic, Zenithal Gnomonic Polar Case, Mercator's Projection, Bonne's Projection		05	
Nabendu Sekhar Kar	DSC 1CT	UNIT – III Surveying	1. Concepts and Principles: Angles, Bearing and Azimuths, Traversing, Radiation, Intersection	9 Sep 2022	02	10
			2. Prismatic Compass: Preparation of landuse maps by open and closed traverse; computations of compass traverse- Included Angle, Area of traverse		04	
			3. Levelling by Dumpy Level: Profile		04	

Dr. Ina Dhar Roy Dasgupta	DSC1DP	Cartographic Techniques (Lab)	Project File, comprising one exercise each is to be submitted: 1. Graphical construction of scales: Plain, comparative 2. Construction of projections: Polar Zenithal Stereographic, Simple conic with one standard parallel and Cylindrical Equal Area		10	40
Nabendu Sekhar Kar			Project File, comprising one exercise each is to be submitted: 3. Preparation of land use maps by open and closed traverse; computations of compass traverse- Included Angle, Area of traverse 4. Leveling by Dumpy Level: Profile	9 Sep 2022	10	
Dr. Ina Dhar Roy Dasgupta/ Nabendu Sekhar Kar			Field Report Report should be written with the following Tentative Chapter Schemes: Preface & Acknowledgement Introduction: Objective, Extent and Space Relations, Data sources and Methodology Physical Environment: Lithology, Drainage, Slope, Climate, Soil, Vegetation etc. Socio Economic Environment: Population Characteristics, Occupational Structure, Ethnic and Religions Composition, Per- Capita income, any other aspects. Problems and Prospects, Bibliography if any Appendix: Survey Questionnaire(s), Additional Tables, if any Word Limit: 3000 (Excluding Tables and Appendix). A copy of the bound report, duly signed by the concerned teacher, should be Submitted.	9 Sep 2022	20 (Excluding field survey days)	

Nabendu Sekhar Kar	SEC 1	Geographical Information System	1. G.I.S: Basic Concepts, Components	9 Sep 2022	01	04
			2. GIS Data structure: Raster and vector		01	
			3. Georeferencing, Digitization		01	
			4. Map Composition and Layout		01	

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **FIFTH**

B.Sc. GENERAL

Teacher	Course Title	Units	Contents	Commence ment Date	Classes required	Total Classes
Nabendu Sekhar Kar	DSE 1AT	Soil and Biogeography	1. Factors or soil formation. Man as an active agent of soil transformation	1 Oct 2022	01	20
			2. Soil profile. Origin and profile characteristics of Laterite and Podzol soils		03	
			3. Definition and significance of soil properties: Texture and structure		02	
			4. Definition and significance of soil properties: pH and organic matter		02	
			5. Soil erosion and degradation: Factors, processes and mitigation measures		02	
			6. Concepts of biosphere, ecosystem, biome, Eco tone, community and ecology		02	
			7. Concepts of trophic structure, food chain and food web. Energy flow in ecosystems		02	
			8. Geographical extent and characteristic features of: Tropical rain forest, Taiga and Grassland biomes		02	
			9. Bio-geochemical cycles with special reference to carbon dioxide and nitrogen		02	
			10. Deforestation: Causes, consequences and management		02	



GENERIC ELECTIVE COURSE

[FOR ECONOMICS HONOURS]

SHAHID MATANGINI HAZRA GOVERNMENT COLLEGE FOR WOMEN

LESSON PLAN FOR THE ACADEMIC SESSION 2022–23

DEPARTMENT: **GEOGRAPHY**

SEMESTER: **THIRD**

B.SC. GENERIC ELECTIVE

Teacher	Course Title	Units	Contents	Commencement Date	Classes required	Total Classes
Nabendu Sekhar Kar	GE 3	Geography of Tourism	1. Scope and Nature: Concepts and Issues, Tourism, Recreation and Leisure Inter Relations; Geographical Parameters of Tourism by Robinson	TBD	02	12
			2. Types of Tourism: Ecotourism, Cultural Tourism, Adventure Tourism, Medical Tourism, Pilgrimage, International, National		02	
			3. Factors influencing tourism: historical, natural, socio-cultural and economic; motivating factors for pilgrimages		02	
			4. Spatial pattern of tourism: Spatial affinity; areal and locational dimensions comprising physical, cultural, historical and economic; International travel destinations- cultural and historical		02	
			5. Impact of tourism: physical, economic and social and perceptive positive and negative impacts		02	
			6. Environmental laws and tourism - current trends, spatial patterns and recent changes		02	
Dr. Ina Dhar Roy Dasgupta			7. Role of foreign capital and impact of globalization on tourism		02	13
			8. Recent Trends of Tourism: International and Regional; Domestic (India); Sustainable Tourism, Meeting Incentives Conventions and Exhibitions (MICE)		02	

			9. Tourism in India: Tourism Infrastructure; Regional dimensions of tourist attraction; Case Studies of Dal lake, Goa, Garhwal Himalaya, Desert and Coastal Areas		04	
			10. Promotion of Tourism - National Tourism Policy		01	
			11. Infrastructure and support system - accommodation and supplementary accommodation; other facilities and amenities		02	
			12. Tourism circuits-short and longer detraction - Agencies and intermediaries - Indian hotel industry		02	