Department of Geography
Sarat Centenary College

Academic Calendar & Plan of 2019-20

Distribution of syllabus into Modules and Units of B.A. Honours Course CBCS

Semester-I

Orientation Programme – 1st week of July - General outline on the emergence of Geography as an academic discipline and its Scope & Importance along with brief introduction programme

1st Module (July to September)

Core Course I: Geotectonics and Geomorphology

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Aditi Sinha, Suchana Banerjee,

Unit 1: Earth's tectonic and structural evolution with reference to geological time scale (SB)
Unit 2: Earth's interior with special reference to seismology. (SB)
Unit 3: Degradational processes: Weathering, mass wasting and resultant landforms (AS)
Unit 4: Models of landscape evolution: Views of Davis, Penck, and Hack (AS)
Unit 5: Slope Development: Concept of Wood (SN)
Unit 6: Development of river network and landforms on uniclinal and folded structures (SN)

Core Course II: Cartographic Techniques and Geological map study

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Soumi Chattopadhyay, Suchana Banerjee

Theory

Unit 1: Maps: Classification and Types. Components of a Map (SB)
Unit 2: Concept of Scales: Plain, Comparative, Diagonal and Vernier (SB)
Unit 3: Coordinate Systems: Polar and Rectangular. Concept of Geoid and Spheroid. Map Projections: Classification, Properties and Uses. Concept and Significance of UTM Projection (SB)
Unit 4: Concept of Generating Globe, Grids: Angular and Linear Systems of Measurement (SB)

Practical

Unit 1: Construction of Scales: Plain, Comparative, Diagonal and Vernier (SN)
Unit 2: Construction of Projections: Polar Zenithal Stereographic, Simple Conic with two Standard Parallels, Bonne's and Mercator's (SC)

2nd Module (October to December)

Core Course I: Geotectonics and Geomorphology

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay

Unit 7: Concept of Isostasy: Theories of Airy and Pratt (SC)
Unit 8: Plate Tectonics: Processes at constructive, conservative, destructive boundaries and hotspots: resulting landforms (SC)
Unit 9: Types of rocks, mineralogical composition of igneous rocks; Landforms on igneous rocks with special reference to Granite and Basalt (SN)
Unit 10: Karst landforms: Surface and sub-surface (SN)

Unit 11: Glacial and fluvio-glacial processes and landforms (BH)
Unit 12: Aeolian and fluvio-aeolian processes and landforms. (BH)

Internal Assessment: 1st Week of December
Theory Examination: as per notification of B.U. (Tentatively on December)

Core Course II: Cartographic Techniques and Geological map study
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Jayanta Manik

Theory
Unit 5: Survey of India Topographical Maps: Reference scheme of Old and Open series (JM)
Unit 6: Delineation of Drainage Basin from Survey of India Topographical Map. Concept of Relief, Slope and Stream Order. (JM)
Unit 7: Types of rocks and minerals. Characteristics of Granite, Basalt, Dolerite, Pegmatite, Gneiss, Shale, Sandstone, Slate, Marble, Quartzite, Quartz, Feldspar, Mica, Limestone, Calcite, Bauxite, Magnetite, Hematite, Galena. (JM)
Unit 8: Concept of Bedding Plane, Unconformity and Non-conformity, thickness of Bed, Dip, Throw, Hade, heave. (JM)
Practical
Unit 3: Construction and Interpretation of Relief Profiles (Superimposed, Projected and Composite), Preparation of Relative Relief Map, Slope map (Wentworth), and Stream Ordering (Strahler) on a Drainage Basin. (BH)
Unit 4: Geological Map (Problems related to Horizontal, Uniclinal, Folded and Faulted structure); Drawing of Geological section and Interpretation of the Map. (JM)

Internal Assessment: 1st Week of December
Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

Semesterr-II

Ist Module (January to March)

Core Course III: Human Geography
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Soumi Chattopadhyay, Aditi Sinha, Suchana Banerjee

Unit 1: Nature, scope and recent trends of Human Geography (SB)
Unit 2: Evolution of humans, concept of race and ethnicity; Major Racial Groups of the world (SB)
Unit 3: Evolution of human societies: Hunting and gathering, Pastoral nomadism, Subsistence farming, Industrial and urban societies (AS)
Unit 4: Human - environment relations with special reference to Arctic and hot desert regions (AS)
Unit 5: Population growth and distribution, population composition; demographic transition model (SC)
Unit 6: Population–Resource regions (SC)

Core Course IV: Cartograms, Survey and Thematic Mapping
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Soumi Chattopadhyay, Aditi Sinha, Suchana Banerjee

Theory
Unit 1: Concepts of Cartograms and Thematic Maps (SN)
Unit 2: Concept and utility of Isopleths and Choropleth (SN)
Unit 3: Concept, utility, and interpretation of:Climograph, Hythergraph and Ergograph (SB)
Unit 4: Preparation and interpretation of demographic charts and diagrams (Age-Sex Pyramid) (SB)

Practical
Unit 1: Diagrammatic representation of data: Star and Age-sex pyramid diagram, pie diagram (AS
Unit 2: Representation of data on map by proportional circles, dots and spheres, isolines and Choropleth method. (SC)

2nd Module (October to December)

Core Course III: Human Geography

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Suchana Banerjee

Unit 7: Space, society and cultural regions (language and religion) (SB)
Unit 8: Concept of Culture, Cultural Diffusion, Convergence, Cultural Realms of the world (SB)
Unit 9: Human, population and environment relations with special reference to development– environment conflict (SN)
Unit 10: Social morphology and rural house types in India (SN)
Unit 11: Types and patterns of rural settlements (BH)
Unit 12: Functional Classification of urban settlements (BH)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

Core Course IV: Cartograms, Survey and Thematic Mapping

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Jayanta Manik

Theory
Unit 5: Concepts of Bearing: magnetic and true, whole-circle and reduced (JM)
Unit 6: Basic concepts of surveying and survey equipments: Abneys Level, Clinometer (JM)
Unit 3: Basic concepts of surveying and survey equipments: Prismatic Compass, Dumpy Level,Transit Theodolite (JM)
Unit 4: Interpretation of Land use and land cover maps (JM)
Practical
Unit 1: Contouring by Dumpy Level and Prismatic Compass (BH)
Unit 2: Determination of Height of objects using Transit Theodolite (Accessible and Inaccessible bases) (JM)

Internal Assessment: 4th Week of May
Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Semesterr-III

1st Module (July to September)

Core Course 5: Climatology

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Soumi Chattopadhyay, Aditi Sinha

Unit 1: Nature, composition and layering of the atmosphere, (SC)
Unit 2: Insolation: controlling factors. Heat budget of the atmosphere. (SC)
Unit 3: Condensation: Processes and forms. Mechanism of precipitation: Bergeron-Findeisen theory, collision and coalescence. Forms of precipitation. (AS)
Unit 4: Air mass: Typology, origin, characteristics and modification. (AS)
Unit 5: Fronts: warm and cold; frontogenesis and frontolysis. (AS)
Unit 6: Weather: stability and instability; barotropic and baroclinic conditions. (AS)

Core Course 6: Statistical Methods in Geography

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay

Theory

Unit 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 (SC)
Unit 2: Collection of data and formation of statistical tables (SC)
Unit 3: Central tendency: Mean, median, mode,partition values (SN)
Unit 4: Measures of dispersion range, mean deviation, standard deviation, coefficient of variation (SN)
Practical
Unit 1: Construction of data matrix with each row representing an aerial unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes (BH)
Unit 2: Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted. (BH)

Core Course 7: Geography of India

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Suchana Banerjee

Unit 1: Geology and physiographic divisions (SB)
Unit 2: Climate, soil and vegetation: Characteristics and classification (SB)
Unit 3: Population: Distribution, growth, structure and policy (SB)
Unit 4: Distribution of population by race, caste, religion, language, tribes (SB)
Unit 5: Physical perspectives: Physiographic divisions, forest and water resources (SN)
Unit 6: Population: Growth, distribution and human development (SN)

SEC-1
Computer Basics and Computer Applications

Credits: Theory-2, Marks – 50, Practical – 40, Internal Assessment – 10

Name of the Teacher: Basudev Halder, Raj Kumar Kundu

Practical

Unit 1: Numbering Systems; Binary Arithmetic (RKK)
Unit 2: Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Covariance and regression; Selection of technique and interpretation.(BH)

2nd Module (October to December)
Core Course 5: Climatology

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Soumi Chattopadhyay, Aditi Sinha

Unit 7: Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and consequences. (SC)
Unit 8: Greenhouse effect and importance of ozone layer (SC)
Unit 9: Circulation in the atmosphere: Planetary winds, jet stream and monsoons (AS)
Unit 10: Tropical and mid-latitude cyclones (AS)
Unit 11: Evidences and causes of climate change (SN)

Unit 12: Climatic classification after Köppen, Thornthwaite (1948) (SN)

Internal Assessment: 1st Week of December
Theory Examination: as per notification of B.U. (Tentatively in December)

Core Course 6: Statistical Methods in Geography
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Jayanta Manik

Theory
Unit 1: Sampling: Need, types, and significance and methods of random sampling (JM)
Unit 2: Distribution: frequency, cumulative frequency (JM)
Unit 3: Association and correlation: Rank correlation, product moment correlation (SN)
Unit 4: Linear Regression and time series analysis (SN)
Practical
Unit 1: Histograms and frequency curve would be prepared on the dataset. (BH)
Unit 2: 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 (JM)

Internal Assessment: 1st Week of December
Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Core Course 7: Geography of India
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Suchana Banerjee

Unit 7: Agricultural regions, Green revolution and its consequences (SB)
Unit 8: Mineral and power resources distribution and utilisation of iron ore, coal, petroleum (SB)
Unit 9: Industrial development since independence. (BH)
Unit 10: Regionalisation of India: Views of Spate and Bhatt. (BH)
Unit 11: Resources: Mining, agriculture and industries (SN)
Unit 12: Regional Development: Darjeeling Hills and Sundarban (SN)

Internal Assessment: 1st Week of December
Theory Examination: as per notification of B.U. (Tentatively in December)

SEC-1
Computer Basics and Computer Applications
Credits: Theory-2, Marks – 50, Practical – 40, Internal Assessment – 10

Name of the Teacher: Basudev Halder, Jayanta Manik

Practical
Unit 3: Preparation of Annoted Diagrams and its interpretation: Scatter diagram and Histogram (BH)
Unit 4: Internet Surfing: Generation and extraction of information (JM)

Internal Assessment: 1st Week of December
Practical Examination: as per notification of B.U. (Tentatively in December)

Semester IV

Ist Module (July to September)

Core Course 8: REGIONAL PLANNING AND DEVELOPMENT
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek

Unit-1. Concept and Classification of Regions (SN)
Unit-2. Types of Planning; Principles and Techniques of Regional Planning (SN)
Unit-3. Development: Meaning, Growth versus Development (BH)
Unit-4. Models for Regional Development: Growth Pole (Perroux) and Core Periphery (Hirschman) (BH)
Unit-5: Model for Regional Development in India: Growth Foci (R.P.Misra) (SN)
Unit-6: Concept of Regional Inequality and Disparity (SN)

Core Course 9: ECONOMIC GEOGRAPHY
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay

Unit 1: Meaning and Approaches to Economic Geography (SC)
Unit 2: Concepts in Economic Geography: Goods; Services; Production; Consumption (SC)
Unit 3: Enzymes Concept and Classification of Economic Activities (BH)
Unit 4: Location Theories: Von Thünenand Alfred Weber (BH)
Unit 5: Primary Activities: Subsistence and Commercial Agriculture; Forestry; Fishing (SN)
Unit 6: Secondary Activities: Manufacturing (Iron and Steel in India and Japan, Petrochemical in India and USA) (SN)

Core Course 10: ENVIRONMENTAL GEOGRAPHY
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Suchana Banerjee, Jayanta Manik

Theory
Unit 1: Geographers' Approach to Environmental Studies (SB)
Unit 2. Changes in Perception of Environment in different stages of Human Civilization (SB)
Unit 3: Ecosystem: Concept, Structure and Functions (SB)
Unit 4: Environmental Degradation and Pollution: Water and Air (SB)
Practical
Unit 1: Preparation of questionnaire for perception survey on environmental problems (JM)
Unit 2: Environmental Impact Assessment: Leopold Matrix (BH)

SEC-2: ADVANCED SPATIAL STATISTICAL TECHNIQUES
Credits: Theory-2, Marks – 50, Practical – 40, Internal Assessment – 10

Name of the Teacher: Basudev Halder, Raj Kumar Kundu

Practical
Unit 1: Concept of Probability and Normal Distribution and their Geographical Applications, Skewness (Pearson's Method) (RKK)
Unit 2: Differences between Spatial and non-Spatial data,Nearest Neighbour Analysis (BH)

2nd Module (October to December)
Core Course 8: REGIONAL PLANNING AND DEVELOPMENT
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Aditi Sinha, Suchana Banerjee

Unit 1: Need for Regional Planning; Multilevel Planning in India (SB)
Unit 2: Metropolitan Concept: Metropolis, Metropolitan Areas, Metropolitan Region (SB)
Unit 5: Human Development: Significance, Indicators and Measurement (AS)
Unit 6: Status of Regional Imbalances in India (AS)

Unit 7: Strategies for Regional Development in India (AS)
Unit 8: NITI Aayog and its Functions (AS)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

Core Course 9: ECONOMIC GEOGRAPHY
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Jayanta Manik

Unit 1: Factors Influencing Location of Economic Activity and Forces of Agglomeration (JM)
Unit 2: Determining Factors of Transport Cost (JM)
Unit 5: Tertiary Activities: Types of Trade and Services (SN)
Unit 6: Agricultural Systems: Tea Plantation in India and Mixed Farming in Europe (SN)
Unit 7: Highways: Roles in Economic Development of Indiasince 1990s (SN)
Unit 8: International Trade Blocs: WTOand OPEC Practical (SN)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

Core Course 10: ENVIRONMENTAL GEOGRAPHY
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Soumi Chattopadhyay

Theory
Unit 5: Environmental Issues related to Agriculture (SB)
Unit 6: Urban Environmental issues related to Waste Management (SB)
Unit 7: Concept and Issues related to Bio-diversity (BH)
Unit 8: Environmental Programs and Policies on Forest and Wetland: National and Global (BH)
Practical
Unit 3: Quality assessment of soil using field kit: pH and NPK (SC)
Unit 4: Interpretation of air quality using CPCB / WBPCB data (BH)

Internal Assessment: 4th Week of May
Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

SEC-2: ADVANCED SPATIAL STATISTICAL TECHNIQUES
Credits: Theory-2, Marks – 50, Practical – 40, Internal Assessment – 10

Name of the Teacher: Basudev Halder, Jayanta Manik

Practical
Unit 3: Correlation and Regression Analysis, t-test, Spearman's Rank Correlation, Product Moment Correlation; Linear Regression (BH)
Unit 4: Time Series Analysis;Smoothing time series by Least Square and/or Moving Average Method (JM)

Internal Assessment: 4th Week of May
Practical Examination: as per notification of B.U. (Tentatively on June)

Semester V

Ist Module (July to September)

Core Course 11: RESEARCH METHODOLOGY AND FIELD WORK
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay, Suchana Banerjee, Jayanta Manik

Theory

Unit 1: Research in Geography: Meaning, types and significance (SN)
Unit 2: Significance of Literature review in research (SN)
Unit 3: Fieldwork in Geographical studies – Role and significance. Selection of study area and objectives. Pre-field preparations. Ethics of fieldwork (SB)
Unit 4: Field techniques and tools: Questionnaires (open, closed, structured, nonstructured). Interview with special reverence to focused group discussions. (SB)
Practical
Unit 1: Students will prepare a field report based on primary data collected form field survey and secondary data collected from different sources for either a rural area (mouza) or an urban area (municipal ward) based on cadastral or municipal maps to study specific problems (BH)
Unit 2: The report should be typed in MS-Word in English language on A4 size paper in candidate's own words within 2500 words. The total number of pages in the Field Report should not exceed 25 pages including texts, figures, tables, photographs, maps, references (APA) and appendices (JM)
Unit 3: A copy of the bound report, duly signed by the concerned teacher, should be submitted (SC)

Core Course 12: REMOTE SENSING AND GIS

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Aditi Sinha, Suchana Banerjee

Theory

Unit 1: Definition, Concepts and Principles of Remote Sensing (RS): Types of Air Photo, RS satellites, sensors and platforms. (AS)
Unit 2: EMR Interaction with Atmosphere and Earth Surface, Sensor resolutions and their applications with reference to IRS (AS)
Unit 3: Definition and Components of Geographical Information System (GIS) and raster and vector data structures (SB)
Unit 4: Principles of preparing attribute tables and overlay analysis Practical (SB)
Practical
Unit 1: Georeferencing of Scanned Maps (BH)
Unit 2: Preparation of FCC using IRS LISS-III and/or Landsat (ETM+) data (BH)

Discipline Specific Elective

DSE 1 OR: CULTURAL AND SETTLEMENT GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Soumi Chattopadhyay

Unit 1: Definition, Scope and Content of Cultural Geography (SN)
Unit 2: Development of Cultural Geography (SN)
Unit 3: Concept of Cultural Hearth, Realm; Cultural Landscape (SN)
Unit 4: Scope and Content of Settlement Geography (SC)
Unit 5: Definition and Characteristics of Rural Settlement (SC)
Unit 6: Rural Settlements: Site and Situation (SC)

DSE- 2: POPULATION GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Suchana Banerjee

Unit 1: Development of Population Geography; Relation between Population Geography and Demography (SB)
Unit 2: Determinants of Population Dynamics; Concept of Optimum Population (SB)

Unit 3: Population Composition and Characteristics: Age-Sex; Female-Male Ratio (SB)
Unit 4: Measures of Fertility and Mortality (SN)
Unit 5: Population Composition of India: Rural and Urban, Occupational Structure as per Census of India (SN)
Unit 6: Migration: Theories, Causes and Types (SN)

2nd Module (October to December)

Core Course 11: RESEARCH METHODOLOGY AND FIELD WORK

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay, Suchana Banerjee, Jayanta Manik

Unit 1: Defining research problem, objectives and hypothesis. Research materials and methods (SN)
Unit 2: Techniques of writing scientific reports: Preparing notes, references, bibliography (APA Style), abstract and keywords (SN)
Unit 3: Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording. (SB)
Unit 4: Collection of samples. Preparation of inventory from field data. Post-field tasks. (SB)
Practical
Unit 1: Preparation of maps (hand-drawn) with suitable scale and latitude and longitude (BH)
Unit 2: Preparation of charts/graphs in MS-Excel and duly labelled (JM)
Unit 3: The report should be typed in MS-Word. The font size is fixed at 12 in Times New Roman and the line spacing 1.5 (SC)

Internal Assessment: 1st Week of December
Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

Core Course 12: REMOTE SENSING AND GIS

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Aditi Sinha, Suchana Banerjee, Jayanta Manik

Theory
Unit 1: Principles of False Colour Composites (FCC) from IRS LISS-III and Landsat Images (ETM+) data: Image Processing, Pre-processing; Enhancement; Classification. (AS)
Unit 2: Principles of image interpretation for Forest, Water and Soil (AS)
Unit 3: Principles of GNSS positioning - Uses and Waypoint Collection Methods (SB)
Unit 4: Applications of Geographical Information System in Flood Management and Urban Sprawl (SB)
Practical
Unit 1: Preparation of LULC Map by Supervised Image Classification (Maximum Likelihood) using IRS LISS-III or Landsat (ETM+) data (JM)
Unit 2: Digitisation of Point. Line and Polygon Features and Preparation of Thematic Map (using bar, pie and choropleth method) (JM)

Internal Assessment: 1st Week of December
Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

DSE 1 OR: CULTURAL AND SETTLEMENT GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Dr. Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay

Unit 1: Cultural Innovation and Diffusion; Diffusion of Major World Religions (SN)
Unit 2: Cultural Segregation, Cultural Diversity, and Acculturation (BH)
Unit 3: Major Races of the World: Distribution and Characteristics (BH)
Unit 4: Urban Settlements: Census Definition, Urban Outgrowth, Urban Agglomeration (SC)
Unit 5: Urban Morphology: Classical Models of Burgess, Hoyt, Harris and Ullman (SC)
Unit 6: Functional Classification of Cities: Harris and Nelson (SC)

Internal Assessment: 1st Week of December
Theory Examination: as per notification of B.U. (Tentatively on December)

DSE- 2: POPULATION GEOGRAPHY
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Suchana Banerjee

Unit 1: Theories of population growth: Malthusian Theory and Marxian Approach, Demographic Transition Model (SB)
Unit 2: Distribution, Density and Growth of Population in India since 1951 (SB)
Unit 3: Concept of Human Development Index (SB)
Unit 4: Population and development: population-resource regions (SB)
Unit 5: Population policies in Selected Countries: Sweden and China (SB)
Unit 6: Contemporary Issues in Population: Health and Unemployment (SB)

Internal Assessment: 1st Week of December
Theory Examination: as per notification of B.U. (Tentatively in December)

Semester VI

Ist Module (July to September)

Core Course 13: EVOLUTION OF GEOGRAPHICAL THOUGHT
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Suchana Banerjee

Unit 1: Definition, Scope and Content of Geography; Geography as a Spatial Science (BH)
Unit 2: Geography in Ancient Period: Greek and Roman (BH)
Unit 3: Development of Geography in Medieval period: Arabian (SN)
Unit 4: German School of Thought (SB)
Unit 5: French School of Thought (SB)
Unit 6: American School of Thought Practical (SB)

Core Course 14: DISASTER MANAGEMENT
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Aditi Sinha, Suchana Banerjee, Jayanta Manik

Theory
Unit 1: Classification of hazards and disasters (SB)
Unit 2: Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms (SB)
Unit 3: Earthquake: Factors, vulnerability, consequences and management (AS)
Unit 4: Landslide: Factors, vulnerability, consequences and management (AS)
Practical
An individual Project Report based on any one among the following disasters incorporating preparedness, mitigation and management plan.
Unit 1: Earthquake (BH)
Unit 2: Landslide (BH)
Unit 3: Cyclone (JM)
Unit 4: Flood (JM)

DSE-3 OR: RESOURCE GEOGRAPHY
Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Aditi Sinha, Jayanta Manik

Unit 1: Resource Geography: Its Importance and relation with other sub-disciplines (AS)
Unit 2: Resource: Concept and Classification (AS)
Unit 3: Functional Theory of Resource (AS)
Unit 4: Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Iron ore, Bauxite (JM)
Unit 5: Distribution and Utilisation of Non-Metallic Mineral Resourcesin Indian Context: Mica, Limestone (JM)
Unit 6: Distribution, Problems and Management of Energy Resourcesin Indian Context: Conventional (Coal) and Non-Conventional (Solar) (JM)

DSE-4: SOIL AND BIO GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Soumi Chattopadhyay

Unit 1: Soil: Definition, Factors of Formation (SC)
Unit 2: Development and Characteristics of an ideal Soil Profile (SC)
Unit 3: Physical and Chemical Properties of Soil with special reference to Texture, Structure, Organic Carbon and pH (SN)
Unit 4: Definition and Scope of Bio-geography, Meaning of Biosphere,Ecology, Ecosystem, Environment, Communities, Habitats, Niche,Ecotoneand Biotopes (BH)
Unit 5: Biosphere and Energy: Laws of Energy Exchange, Food Chain, Food Weband Energy Flow (BH)
Unit 6: Bio-Geo Chemical Cycle: Carbon, Nitrogen (BH)

2nd Module (October to December)

Core Course 13: EVOLUTION OF GEOGRAPHICAL THOUGHT

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Soumi Chattopadhyay, Suchana Banerjee

Unit 1: Development of Mapping and Knowledge about the World Regional Geography in the Age of Explorations (SN)
Unit 2: Classical Geography in 19th Century: Humboldt, Ritter (SN)
Unit 3: Quantitative Revolution and its Critique (SN)
Unit 4: Indian Contribution to Geography (SB)
Unit 5: Concept of Determinism, Possibilism and Neo-Determinism (SC)
Unit 6: Approaches to the study of Geography: Systematic and Regional (SC)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

Core Course 14: DISASTER MANAGEMENT

Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Suchana Banerjee, Jayanta Manik

Theory
Unit 1: Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building (SB)
Unit 2: Hazards mapping: Data and techniques. (SB)
Unit 3: Cyclone: Factors, vulnerability, consequences and management (BH)
Unit 4: Fire: Factors, vulnerability, consequences and management (BH)
Practical
An individual Project Report based on any one among the following disasters incorporating preparedness, mitigation and management plan
5. Drought (BH)
6. River Bank Erosion (BH)
7. Mining Area Subsidence (BH)
8. Tsunami (JM)

Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

DSE-3 OR: RESOURCE GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Sanjib Nayek, Aditi Sinha, Jayanta Manik

Unit 1: Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels (AS)
Unit 2: Resource Conservation: Principles and Methods (AS)
Unit 3: Concept of 'Limits to Growth' (AS)
Unit 4: Power resources and problems with reference to Petroleum (JM)
Unit 5: Contemporary Energy Crisis and Future Scenario (SN)
Unit 6: Sustainable Resource Development (SN)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

DSE-4: SOIL AND BIO GEOGRAPHY

Credits: Theory-6, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Name of the Teacher: Basudev Halder, Sanjib Nayek, Suchana Banerjee

Unit 1: Concept of Zonal, Azonal and Intrazonal Soil; Formation and Profile Characteristics of Laterite and Podsol (SN)
Unit 2: Classification of Soil: Russianand Indian (ICAR) (SB)
Unit 3: Soil Degradation and Management (SB)
Unit 4: Factors of Plant Growth: Light, Heat, Moisture, Wind, Soil and Topography (BH)
Unit 5: Biomes – Concept and Classification;Tropical Rainforest and Temperate Grassland (SN)
Unit 6: Threat to Biodiversity- Causes, Consequences and Conservation (SN)

Internal Assessment: 4th Week of May
Theory Examination: as per notification of B.U. (Tentatively on June)

Counselling Programme – Final week of June- General outline on the admission and scope of higher education and related jobs