

Department	Geography						
Class	Undergraduate Programmes in Geography (2024-2025) NEP						
Name of the Teacher	Course Code	Course Title	Sub-units	Class Hour	Total No. of Lectures	Teaching Aids Used	Remarks (if any)
Daisy Nargis	Major (GEOG-M-T-1)	GEOTECTONICS AND GEOMORPHOLOGY	1. Earth's tectonic and structural evolution with reference to geological time scale	5	72	White Board , Marker Pen, Model	
Nabin Mandal	Major (GEOG-M-T-1)		2. Earth's crust and interior: Internal structure with reference to seismological evidences	5		White Board , Marker Pen, Model	
Daisy Nargis	Major (GEOG-M-T-1)		3. Theories of Isostasy: Airy and Pratt	5		White Board , Marker Pen, Model	
Daisy Nargis	Major (GEOG-M-T-1)		4. Continental drift theory: Evidences and criticism; Concept of Sea Floor Spreading and Palaeomagnetism	5		White Board , Marker Pen, Model	
Nabin Mandal	Major (GEOG-M-T-1)		5. Plate Tectonics: Mechanism and resultant landforms; Earthquakes and Vulcanicity	8		White Board , Marker Pen, Model	
Nabin Mandal	Major (GEOG-M-T-1)		6. Folds and Faults: Origin and classification	5		White Board , Marker Pen, Model	
Daisy Nargis	Major (GEOG-M-T-1)		1. Fundamental principles of Geomorphology	5		White Board , Marker Pen, Model	
Daisy Nargis	Major (GEOG-M-T-1)		2. Degradation processes: Weathering, Mass wasting and resultant landforms	6		White Board , Marker Pen, Model	
Nabin Mandal	Major (GEOG-M-T-1)		3. Theories of landscape evolution: Davis, Penck and Hack	6		White Board , Marker Pen, Model	
Daisy Nargis	Major (GEOG-M-T-1)		4. Slope development: Theories of King and Wood	5		White Board , Marker Pen, Model	
Nabin Mandal	Major (GEOG-M-T-1)		5. Development of river network and landforms on uniclinal and folded structures	5		White Board , Marker Pen, Model	
Daisy Nargis & Nabin Mandal	Major (GEOG-M-T-1)		Processes and landforms: Fluvial, Glacial, Aeolian and Coastal	12		White Board , Marker Pen, Model	
Nabin Mandal	SEC (G)	Basics of Computer and Computer Applications	1. Basics of computer and its operation 2. Numbering Systems - Binary Arithmetic, 3. Preparation of Annotated diagrams and its interpretation: Line graph, Bar and Pie diagrams, Histogram and Scatter diagrams, 4. Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Coefficient of Variation, Regression, 5. Internet Surfing: Generation and Extraction of Information	36	36	computer, internet, printer, electricity.	

Daisy Nargis	Minor (GEOG-MI-T-1)	PHYSICAL GEOGRAPHY	1. Internal structure of the earth, 2. Continental drift theory: Mechanism, evidences and criticisms	6	48	Map, model, white board, marker pen	
Nabin Mandal	Minor (GEOG-MI-T-1)		3. Plate tectonics: Mechanism and resultant landforms, 4. Geomorphic process: Weathering	6		Map, model, white board, marker pen	
Daisy Nargis & Nabin Mandal	Minor (GEOG-MI-T-1)		5. Processes and landforms: Fluvial, Glacial, Aeolian and Coastal	12		Map, model, white board, marker pen	
Daisy Nargis	Minor (GEOG-MI-T-1)		6. Composition and structure of the atmosphere, 7. Insolation, Heat budget, Horizontal and vertical distribution of temperature	10		Map, model, white board, marker pen	
Daisy Nargis	Minor (GEOG-MI-T-1)		8. Hydrological cycle, 9. Definition of soil, concept of soil profile and soil forming factors;	6		Map, model, white board, marker pen	
Nabin Mandal	Minor (GEOG-MI-T-1)		10. Types of soil: Zonal, Azonal and Intrazonal, 11. Concept of ecology and ecosystem; Biome: Tropical rain forest and Taiga	8		Map, model, white board, marker pen	
Daisy Nargis	Major (GEOG-M-T-2)	POPULATION AND SETTLEMENT GEOGRAPHY	Development of Population Geography; Relation between Population Geography and Demography	5	72	Map, model, white board, marker pen	
Nabin Mandal	Major (GEOG-M-T-2)		2. Determinants of Population Dynamics: Fertility, Mortality and Migration	10		Map, model, white board, marker pen	
Nabin Mandal	Major (GEOG-M-T-2)		3. Population Composition (Age-Sex and Occupational Structure)	5		Map, model, white board, marker pen	
Daisy Nargis	Major (GEOG-M-T-2)		4. Theories of population growth: Malthus and Marx;	5		Map, model, white board, marker pen	
Daisy Nargis	Major (GEOG-M-T-2)		5. Demographic Transition Theory (Thompson and Notestein)	5		White Board , Marker Pen, world map.	
Daisy Nargis	Major (GEOG-M-T-2)		6. Migration: types, causes and theories	7		White Board , Marker Pen, Model, world map, indian map	
Nabin Mandal	Major (GEOG-M-T-2)		Population Policies (India and Sweden)	3		White Board , Marker Pen, Model, world map, indian map	
Daisy Nargis	Major (GEOG-M-T-2)		1. Development of Settlement Geography 2. Rural settlement: Site, situation, types and pattern 3. Morphology of rural settlements: layout-internal and external Theory and hierarchy of settlements	15		White Board , Marker Pen, Model, world map, indian map	
Nabin Mandal	Major (GEOG-M-T-2)		4. Urban settlements: Census definition, Urban agglomeration; Urban sprawl, Rural-urban continuum, Rurban and Periurban 5. Urban morphology: Classical Models of Burgess, Hoyt, Harris and Ullman 6. Central Place	17		White Board , Marker Pen, Model, world map, indian map	

Nabin Mandal	SEC (GEOG-SEC-P-2)	COMPUTER BASICS AND COMPUTER APPLICATION	Students are required to carry out a comprehensive field work in a village/mouza/town/C.D. Block/ drainage basin selecting a particular research problem. There should be a clear-cut title, problem statement, objectives, methodology and major findings. The text of the report should not exceed 5000 words and 15-20 pages of illustrations (A4 Pages). The diagrams and illustrations should be prepared in computer using the standard format	36	36	computer, internet, printer, electricity.	
Nabin Mandal	Multidisciplinary Course (GEOG-MU-T-1)	DISASTER MANAGEMENT	1. Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification of hazards 2. Flood, drought, landslide: causes, impact and distribution in India 3. Earthquake: causes, effects and seismic zones of India; Tsunami: causes and effects 4. Tropical Cyclone: structure, formation and impact with reference to India	24	36	White Board , Marker Pen, Model, world map, indian map	
Deisy Nargis	Multidisciplinary Course (GEOG-MU-T-1)	DISASTER MANAGEMENT	5. Manmade disasters in India: soil erosion and accidental release of toxic chemicals – causes and impact 6. Disasters - response and mitigation measures: Institutional set up - NDMA and NIDM; Indigenous knowledge and community-based Disaster Management; Do's and Don'ts during and post disasters	12		White Board , Marker Pen, Model, world map, indian map	
Daisy Nargis	Minor (GEOG-MI-T-2)	HUMAN GEOGRAPHY	1. Distribution and growth of population in India 2. Demographic Transition Theory 3. Migration: Concept, types and causes 4. Economic activities: Primary, Secondary and Tertiary 5. Types and patterns of rural settlements	24	48	White Board , Marker Pen, Model, world map, indian map	
Nabin Mandal	Minor (GEOG-MI-T-2)	HUMAN GEOGRAPHY	6. Urban settlement: Census definition and characteristics 7. Functional classification of towns 8. Major ethnic groups in India: Santhal, Gond, Toda and Khasi 9. Concept of culture, Cultural hearths and Cultural diffusion Human Development Index	24		White Board , Marker Pen, Model, world map, indian map	
Deisy Nargis	Multidisciplinary Course (GEOG-MU-T-2)	RURAL DEVELOPMENT	Rural Development; Gandhian Approach of Rural Development; Inter-Dependence of Urban and Rural Sectors of the Economy 2. Rural Economic Base: Panchayatiraj System, Agriculture and allied activities, Seasonal nature of Indian agriculture; need for expanding non-farm activities; Role of Co-operatives; PURA 3. Area based approach to rural development: Drought Prone Area Programmes, PMGSY.	18	36	White Board , Marker Pen, indian map	
Nabin Mandal	Multidisciplinary Course (GEOG-MU-T-2)	RURAL DEVELOPMENT	4. Target Group Approach to rural development: SGSY, M	18		White Board , Marker Pen, Map,	
Daisy Nargis	Major (GEOG-M-T-3)	FUNDAMENTALS OF REMOTE SENSING, GIS AND GNSS	1. Definition and stages of remote sensing; EMR and its sp 2. Remote sensing platforms, satellites and sensors 3. Sensor resolutions and their applications with reference 4. Concept of FCC; Principles of image interpretation (visu 5. Aerial Photographs: types, geometry and photo interpret 6. Applications of remote sensing in managing agriculture, water and forest resources; Monitoring urban growth and environmental degradation	36	72	computer, internet, printer, electricity, White Board, Marker, Pen.	
Nabin	Major	FUNDAMENTALS OF	1. Definition, components and applications of GIS 2. GIS data structures types: spatial and non-spatial, raster and vector			computer, internet, printer, electricity	

Mandal	(GEOG-M-T-3)	REMOTE SENSING, GIS AND GNSS	3. Principles of preparing attribute tables, data manipulation and overlay analysis 4. Principles and significance of buffer preparation 5. Basic concept of GPS 6. Principles of GNSS positioning and waypoint collection;	36		printer, electricity, White Board, Marker, Pen.	
Nabin Mandal	SEC (GEOG-SEC-P-3)	APPLIC OF REMOTE SENSING AND GIS	1. Acquisition procedure of free geospatial data from NRSC /Bhoonidhi and USGS 2. Georeferencing of maps and images; Digitisation of features: Point, Line and Polygon 3. Data attachment and preparation of thematic map (bargraph, pie-chart and choropleth); Overlay analysis 4. Preparation of FCC using IRS LISS-III/IV and/or LANDSAT (ETM+) data; Image enhancement 5. Preparation of LULC map by Supervised Image Classification (Maximum Likelihood) using IRS LISS-III/IV or LANDSAT (ETM+) data	36	36	Sattile image, Air photo, computer, internet, printer, electricity, White Board, Marker, Pen.	
Daisy Nargis	Minor (GEOG-MI-T-2)	HUMAN GEOGR APHY	1.Distribution and growth of population in India 2.Demographic Transition Theory 3.Migration: Concept, types and causes 4.Economic activities: Primary, Secondary and Tertiary 5.Types and patterns of rural settlements	24	48	White Board , Marker Pen, Model, world map, indian map	
Nabin Mandal	Minor (GEOG-MI-T-2)	HUMAN GEOGR APHY	6.Urban settlement: Census definition and characteristics 7.Functional classification of towns 8.Major ethnic groups in India: Santhal, Gond, Toda and Khasi 9.Concept of culture, Cultural hearths and Cultural diffusion Human Development Index	24		White Board , Marker Pen, Model, world map, indian map	
Daisy Nargis	Major (GEOG-M-T-4)	CLIMATO LOGY, SOIL AND BIOGEOG RAPHY	1. Temperature: Horizontal and vertical distribution; Heat budget of the atmosphere; Inversion of temperature: types and causes 2. Circulation in the Atmosphere: Planetary winds; Jet stream 3. Air mass and front: Origin, characteristics and types 4. Monsoon Circulation and Mechanism with reference to India 5. Condensation: Processes and forms; Mechanism of precipitation: Bergeron-Findeisen Theory, Collision and coalescence; Forms of precipitation 6. Concept of climate change; Climatic Classification after Köppen and Thorntwaite (1931 and 1948)	36	72	White Board , Marker Pen, Model, world map, indian map	
Nabin Mandal	Major (GEOG-M-T-4)	CLIMATO LOGY, SOIL AND BIOGEOG RAPHY	1. Factors of soil formation; Concept of soil profile; origin 2. Physical and chemical properties of soil: Texture, structure and moisture, pH, organic matter and NPK 3. Principles of soil classification: Genetic and USDA. Concept of land capability and its classification 4. Concepts of ecology, biosphere, ecosystem, biome, ecotone, community; Energy flow in ecosystems 5. Geographical extent and characteristic features of Tropical rain forest, Taiga and Grassland biomes 6. Bio-geochemical cycles with special reference to carbon dioxide and nitrogen; Bio-diversity: Definition, types, threats and conservation measures	36		White Board , Marker Pen, Model, world map, indian map	
	MAJO	CARTO GRAPHI C	1. Construction of Scales: Linear, Comparative, 2. Representation of Data on Map by Proportional Circles, Dots and Spheres, Isolpleth and Choropleth			White Board ,	

Daisy Nargis	MAJOR (GEOG-M-P-5)	TECHNIQUES AND SURVEYING	3. Diagrammatic Representation of Data: Bar and Age-sex Pyramid Diagram, Pie Diagram 4. Preparation and Interpretation of Climograph, Taylor Hythergraph and Ergograph	36	72	Marker Pen, Model, world map, indian map, Scale	
Nabin Mandal	MAJOR (GEOG-M-P-5)	CARTOGRAPHIC TECHNIQUES AND SURVEYING	1. Measures of Concentration: Location Quotient 2. Proximity Analysis: Nearest Neighbour Analysis 3. Traversing by Prismatic Compass and Dumpy Level Surveying with One Change Point (profile drawing and contouring) 4. Determination of height of objects by Transit Theodolite (level ground base accessible case)	36		White Board, Marker Pen, Model, world map, indian map, Scale	
Daisy Nargis	Minor (GEOG-MI-T-2)	HUMAN GEOGRAPHY	1. Distribution and growth of population in India 2. Demographic Transition Theory 3. Migration: Concept, types and causes 4. Economic activities: Primary, Secondary and Tertiary 5. Types and patterns of rural settlements	24	48	White Board, Marker Pen, Model, world map, indian map	
Nabin Mandal	Minor (GEOG-MI-T-2)	HUMAN GEOGRAPHY	6. Urban settlement: Census definition and characteristics 7. Functional classification of towns 8. Major ethnic groups in India: Santhal, Gond, Toda and Khasi 9. Concept of culture, Cultural hearths and Cultural diffusion Human Development Index	24		White Board, Marker Pen, Model, world map, indian map	
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Daisy Nargis	Multidisciplinary Course (GEOG-MU-T-1)	DISASTER MANAGEMENT	5. Manmade disasters in India: soil erosion and accidental release of toxic chemicals – causes and impact 6. Disasters - response and mitigation measures: Institutional set up - NDMA and NIDM; Indigenous knowledge and community-based Disaster Management; Do's and Don'ts during and post disasters	12		White Board, Marker Pen, Model, world map, indian map	


 10/12/24
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