MAHARANI KASISWARI COLLEGE

DEPARTMENT OF GEOGRAPHY

LESSON PLAN

SEMESTER: 2

ACADEMIC YEAR: 2025-2026

COURSE: HONOURS

PAPER	TOPICS	HOURS	FACULTY
DSCC-2 THEORY (HUMAN GEOGRAPHY)	Unit I (Scope and Approaches) 1. Elements of human geography: Nature, scope, and recent trends	4	Avik Kumar Bayen
	2. Human geography schools of thought: Resource, locational, landscape, environment	6	
	Unit II (Social Geography) 3. Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming, and industrial society	6	Dr. Uttam Kumar Sardar
	4. Human adaptation to the environment: Chenchu, Toda, and Gond	6	
	5. Evolution and characteristics of post-industrial urban societies	2	
	Unit III (Population Geography) 6. Demographic transition. Significance of demographic dividend	3	Sharmistha Dhar
	7. Distribution, density, and growth of population in India	4	
	Unit IV (Settlement Geography) 8. Characteristics of settlements: Urban and rural	4	Riyanka Chatterjee
	9. Site, situation, types, and patterns of rural settlements	6	
	Unit V (Urban Geography) 10. Size-class classification of urban settlements after Census of India	4	Ritabrita Saha
DSCC-2 PRACTICAL	1. Growth rate of population: Arithmetic growth comparing two	6	Emily Saha

(HUMAN GEOGRAPHY	decadal datasets		
	2. Representation and interpretation of population density of Indian states or West Bengal districts by choropleth method	8	Soha Hossain
	3. Identification of types of settlements according to sites from Survey of India 1:50k topographical maps	8	Emily Saha
	4. Construction of proportional squares depicting number of houses	8	Soumi Mitra

COURSE: MULTIDISCIPLINARY (MDC)

PAPER	TOPICS	HOURS	FACULTY
CC-2 THEORY (HUMAN GEOGRAPHY)	As same as Honours course	A total of 45	Riyanka Chatterjee
CC-2 PRACTICAL (HUMAN GEOGRAPHY	1. Growth rate of population: Arithmetic growth comparing two decadal datasets	6	Sharmistha Dhar
	2. Representation and interpretation of population density of Indian states or West Bengal districts by choropleth method	8	Avik Kumar Bayen
	3. Identification of types of settlements according to sites from Survey of India 1:50k topographical maps	8	Sharmistha Dhar
	4. Construction of proportional squares depicting number of houses	8	Avik Kumar Bayen

COURSE: IDC

PAPER	TOPICS	HOURS	FACULTY
GEOD-1 THEORY (GEOMATICS AND SPATIAL ANALYSIS)	Unit I (Cartography) 1. Concept and applications of scales and projections. Components and classification of maps	4	Soha Hossain
	2. Bearing: Magnetic and true, whole-circle and reduced. Concept of geoid and spheroid with special reference to WGS-84.	3	
	3. Map projections: Classification, properties and uses with special reference to simple conical projection and Universal Transverse Mercator (UTM)	5	
	Unit II (Surveying) 4. Basic concepts of surveying, survey equipment, and their capabilities: Dumpy level, theodolite, total station, and Global Navigation Satellite System (GNSS)	10	
	Unit III (Remote Sensing and Geographical Information System) 5. Principles of remote sensing (RS). Types of RS satellites and sensors with reference to IRS and Landsat missions	5	Soumi Mitra
	6. Principles of • preparing standard false colour composites (FCCs) and • supervised image classification	4	
	7. GIS data types: Spatial and non-spatial (attribute table and metadata), raster and vector	2	
	8. Principles of preparing attribute tables, data manipulation, query, and overlay	7	
GEOD-1 PRACTICAL (GEOMATICS AND SPATIAL ANALYSIS)	1. Construction of simple conical projection with one standard parallel	6	Soha Hossain
	2. Traverse survey and plotting UTM coordinates using smartphone GNSS application	8	
	3. Identification of land use / land cover features from standard FCCs and preparation of inventories	8	Soumi Mitra
	4. Change detection of riverbank or coastline shift from multi-dated maps and images	8	

MAHARANI KASISWARI COLLEGE

DEPARTMENT OF GEOGRAPHY

LESSON PLAN

SEMESTER: FOUR

ACADEMIC YEAR: 2025-2026

COURSE: HONOURS

PAPER	TOPICS	HOURS	FACULTY
DSCC-05 THEORY (GEOMORPHOLOGY)	1. Time and space in geomorphology: Schumm and Lichty's model. Landform ordering: Ga Scale of Tricart and Haggett.	4	Dr. Uttam Kumar Sardar
	2. Degradational processes: Classification of mass wasting, and resultant landforms.	4	Sharmishtha Dhar
	3. Processes of entrainment, transportation, and deposition by different geomorphic agents.	5	Soumi Mitra
	4. Development of river network and landforms on uniclinal and folded structures. Surface expression of faults.	6	Sharmishtha Dhar
	5. Development of river network and landforms on granites, basalts, and limestones.	6	
	6. Coastal processes and landforms.	4	Ritabrita Saha
	7. Glacial and glacio-fluvial processes and landforms.	4	
	8. Aeolian and fluvio-aeolian processes and landforms.	4	
	9. Models on landscape evolution: Views of Davis, Penck, King, and Hack. Significance of systems approach.	6	Soumi Mitra
	10. Role of humans in landform development.	2	
DSCC-05 PRACTICAL (GEOMORPHOLOGY)	1. Extraction and interpretation of geomorphic information	7	Sharmishtha Dhar

	from Survey of India 1:50k topographical maps of plateau region: Construction of relief profiles (superimposed, projected, and composite).		
	2. Construction of relative relief map, slope map (after Wentworth), drainage density map on a delineated drainage basin (c. 5’ x 5’).	9	
	3. Construction of hypsometric curve and derivation of hypsometric integer of a drainage basin (c. 5’ x 5’) of a plateau region	7	Soumi Mitra
	4. Determination of channel sinuosity index (channel length/valley length measured through straight line) and braiding index of rivers from topographical maps (c. 10-km reach).	7	
DSCC-06 THEORY (CLIMATOLOGY)	Unit I: Elements of the Atmosphere 1. Insolation: Controlling factors. Heat budget of the atmosphere.	3	Sharmishtha Dhar
	2. Temperature: horizontal and vertical distribution. Inversion of temperature: Types, causes and consequences.	4	
	3. Overview of climate change: Causes, trends, and predictions of global temperature rise since 1850 CE. Formation, depletion, restoration, and significance of the ozone layer.	6	
	Unit II: Atmospheric Phenomena and Climatic Classification 4. Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory, and collision & coalescence theory. Forms of precipitation.	5	Dr. Uttam Kumar Sardar
	5. Air mass: Typology, origin, characteristics, and modification.	4	
	6. Types of fronts.	5	

	Frontogenesis and frontolysis.		
	7. Weather: Stability and instability, barotropic and baroclinic conditions.	4	
	8. Atmospheric disturbances: Tropical cyclones and thunderstorms.	6	
	9. Monsoon circulation and mechanism with reference to India.	4	
	10. Climatic classification after Köppen (1936) and Thornthwaite (1948).	4	
DSCC-06 PRACTICAL (CLIMATOLOGY)	1. Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure, relative humidity, and rainfall.	6	Soha Hossain
	2. Interpretation of a daily weather map of India (any two): Pre-Monsoon, monsoon, and post-monsoon.	12	
	3. Construction and interpretation of monthly rainfall dispersion diagram (quartile method). Climatic water budget.	6	Soumi Mitra
	4. Construction and interpretation of hythergraph and climograph (after Taylor).	6	Soha Hossain
DSCC-07 THEORY (SOCIAL GEOGRAPHY)	Unit I: Concepts 1. Nature, scope, and content of Social Geography.	4	Avik Kumar Bayen
	2. Social structure: caste and class. Social process: Urbanisation, industrialisation, and migration.	6	
	3. Social differentiation and region formation.	3	
	Unit II: Social Issues 4. Social indicators of development: Education and health	3	Riyanka Chatterjee
	5. Concepts of social justice and social security with examples from India.	6	Ritabrita Saha
	6. Contemporary social issues: Gender related problems.	4	Riyanka Chatterjee
	7. Social problems in urban	4	Dr. Uttam Kumar

	areas: Poverty and crime.		Sardar
	8. Social problems in rural areas: Marginalisation and deprivation.	4	
	9. Social welfare schemes for tribes, women, and children.	6	Ritabrita Saha
	10. Social segregation: A comparison between cities of global north and south.	5	Emily Saha
DSCC-07 PRACTICAL (SOCIAL GEOGRAPHY)	1. Preparation of human development index (after UNDP).	8	Ritabrita Saha
	2. Preparation of gender development index (after UNDP).	10	
	3. Construction and interpretation of cartograms showing distribution of people living below poverty line in India.	5	Avik Kumar Bayen
	4. Preparation of a questionnaire on socio-economic status / access to amenities in slum areas (rural or urban, as applicable).	7	
DSCC-08 THEORY (CARTOGRAPHIC TECHNIQUES)	1. Coordinate systems: Polar and rectangular.	3	Riyanka Chatterjee
	2. Grids: Angular and linear systems of measurement.	3	
	3. Bearing: Magnetic and true, whole-circle and reduced.	2	Soha Hossain
	4. Concept of geoid and spheroid with special reference to Everest and WGS-84. Conversion of angular distance to linear distance.	4	Emily Saha
	5. Map projections: Classification, properties and uses.	10	
	6. Properties, uses and limitations of projections: Polar Zenithal Stereographic, Simple Conic with one standard parallel, Bonne’s, Cylindrical Equal Area, and Mercator’s.	5	
	7. Concept and significance of UTM projection.	3	
	8. Representation of data using dots, spheres, and divided	6	Soha Hossain

	proportional circles.		
	9. Representation of data using isopleth, choropleth, and chorochromatic maps.	6	
	10. Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps.	3	Riyanka Chatterjee
DSCC-08 PRACTICAL (CARTOGRAPHIC TECHNIQUES)	1. Construction of projections: Polar Zenithal Stereographic, Simple Conic with one standard parallel, Bonne's.	8	Emily Saha
	2. Construction of projections: Cylindrical Equal Area and Mercator's.	6	
	3. Construction and interpretation of thematic maps: Simple and composite line and bar graphs bar. Dots and spheres.	8	Soha Hossain
	4. Construction and interpretation of thematic maps: Dasymetric density, isopleth, and chorochromatic maps.	8	

COURSE: MULTIDISCIPLINERY (MDC)

PAPER	TOPICS	HOURS	FACULTY
CC-04 THEORY (CLIMATOLOGY)	Unit I: Elements of the Atmosphere 1. Insolation: Controlling factors. Heat budget of the	3	Dr. Uttam Kumar Sardar

	atmosphere.		
	2. Temperature: horizontal and vertical distribution. Inversion of temperature: Types, causes and consequences.	4	
	3. Overview of climate change: Causes, trends, and predictions of global temperature rise since 1850 CE. Formation, depletion, restoration, and significance of the ozone layer.	6	
	Unit II: Atmospheric Phenomena and Climatic Classification 4. Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory, and collision & coalescence theory. Forms of precipitation.	5	
	5. Air mass: Typology, origin, characteristics, and modification.	4	
	6. Types of fronts. Frontogenesis and frontolysis.	5	
	7. Weather: Stability and instability, barotropic and baroclinic conditions.	4	
	8. Atmospheric disturbances: Tropical cyclones and thunderstorms.	6	
	9. Monsoon circulation and mechanism with reference to India.	4	
	10. Climatic classification after Köppen (1936) and Thornthwaite (1948).	4	
CC-04 PRACTICAL (CLIMATOLOGY)	1. Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure, relative humidity, and rainfall.	6	Soha Hossain
	2. Interpretation of a daily weather map of India (any two): Pre-Monsoon, monsoon, and post-monsoon.	12	
	3. Construction and interpretation of monthly rainfall dispersion diagram (quartile method). Climatic	6	

	water budget.		
	4. Construction and interpretation of hythergraph and climograph (after Taylor).	6	
CC-05 THEORY (GEOMORPHOLOGY)	1. Time and space in geomorphology: Schumm and Lichty's model. Landform ordering: Ga Scale of Tricart and Haggett.	4	Riyanka Chatterjee
	2. Degradational processes: Classification of mass wasting, and resultant landforms.	4	
	3. Processes of entrainment, transportation, and deposition by different geomorphic agents.	5	
	4. Development of river network and landforms on uniclinal and folded structures. Surface expression of faults.	6	
	5. Development of river network and landforms on granites, basalts, and limestones.	6	
	6. Coastal processes and landforms.	4	
	7. Glacial and glacio-fluvial processes and landforms.	4	
	8. Aeolian and fluvio-aeolian processes and landforms.	4	
	9. Models on landscape evolution: Views of Davis, Penck, King, and Hack. Significance of systems approach.	6	
	10. Role of humans in landform development.	2	
DSCC-05 PRACTICAL (GEOMORPHOLOGY)	1. Extraction and interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region: Construction of relief profiles (superimposed, projected, and composite).	7	Ritabrita Saha
	2. Construction of relative relief map, slope map (after Wentworth), drainage density map on a delineated drainage basin (c. 5' x 5').	9	
	3. Construction of hypsometric	7	

	curve and derivation of hypsometric integer of a drainage basin (c. 5’ x 5’) of a plateau region		
	4. Determination of channel sinuosity index (channel length/valley length measured through straight line) and braiding index of rivers from topographical maps (c. 10-km reach).	7	

COURSE: FOUR YEAR MINOR

PAPER	TOPICS	HOURS	FACULTY
MN-2 THEORY (HUMAN	Unit I (Scope and Approaches) 1. Elements of human geography: Nature, scope, and recent trends	4	Soumi Mitra

GEOGRAPHY)	2. Human geography schools of thought: Resource, locational, landscape, environment	6	
	Unit II (Social Geography) 3. Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming, and industrial society	6	Avik Kumar Bayen
	4. Human adaptation to the environment: Chenchu, Toda, and Gond	6	
	5. Evolution and characteristics of post-industrial urban societies	2	
	Unit III (Population Geography) 6. Demographic transition. Significance of demographic dividend	3	Soumi Mitra
	7. Distribution, density, and growth of population in India	4	
	Unit IV (Settlement Geography) 8. Characteristics of settlements: Urban and rural	4	Emily Saha
	9. Site, situation, types, and patterns of rural settlements	6	
	Unit V (Urban Geography) 10. Size-class classification of urban settlements after Census of India	4	Avik Kumar Bayen
MN-2 PRACTICAL (HUMAN GEOGRAPHY	1. Growth rate of population: Arithmetic growth comparing two decadal datasets	6	Emily Saha
	2. Representation and interpretation of population density of Indian states or West Bengal districts by choropleth method	8	
	3. Identification of types of settlements according to sites from Survey of India 1:50k topographical maps	8	Avik Kumar Bayen
	4. Construction of proportional squares depicting number of houses	8	Soumi Mitra