GDC Memorial College

Bahal (Bhiwani) - 127028

NAAC Accredited Grade "B" (Second Cycle) and Recognized under the Sections 2(f) & 12B of the UGC Act, 1956

Affiliated to Ch. Bansi Lal University, Bhiwani

Lesson Plan- January to April 2026

Name - Dr. Himanshu Grover **Department - Geography**

Class - M.Sc. Geography **Subject - Oceanography**

Semester - 2nd **Subject Code - 25 PG GEO 201**

Week -1	**UNIT-1**
27.01.2026	Introduction to the subjects and its outcome & objectives
28.01.2026	Nature, scope, and significance of oceanography in Geography and Earth System Scienc
29.01.2026	do
30.01.2026	Branches of oceanography
Week -2	
02.02.2026	Origin, evolution and Distribution of oceans
03.02.2026	do
04.02.2026	continental shelf, slope, rise, abyssal plains, mid-ocean ridges, seamounts, trenches,
05.02.2026	do
06.02.2026	do
Week-3	
09.02.2026	Physical and chemical properties of seawater
10.02.2026	do
11.02.2026	heat budget
13.02.2026	do
14.02.2026	Latitudinal and vertical distribution of temperature and salinity
Week-4	**UNIT-2**
16.02.2026	Waves: types and characteristics
17.02.2026	do
18.02.2026	Tides: theories, spring and neap tides, tidal patterns of the Indian coast,
20.02.2026	do
21.02.2026	Ocean currents: causes, types, and global circulation
Week-5	
23.02.2026	do
24.02.2026	Indian Ocean circulation and monsoon-driven currents
25.02.2026	do
26.02.2026	Ocean–atmosphere interaction and heat transfer
27.02.2026	do
Week-6	
02.03.2026	ENSO and Indian Ocean Dipole (IOD) and their climatic influence
03.03.2026	do
04.03.2026	Sea-level changes and coastal implications

05.03.2026	do
06.03.2026	**Mid Term Exam**
Week-7	**UNIT-3**
09.03.2026	Marine ecosystems: pelagic and benthic systems
10.03.2026	do
11.03.2026	Coral reefs, mangroves, and estuaries
12.03.2026	do
13.03.2026	Marine productivity and food chains
Week-8	
16.03.2026	do
17.03.2026	Living and non-living marine resources
18.03.2026	do
19.03.2026	India's Exclusive Economic Zone (EEZ) and Blue Economy
Week-9	
23.03.2026	Marine pollution and environmental degradation
24.03.2026	do
25.03.2026	Coastal hazards: cyclones, storm surges, tsunamis
27.03.2026	do
28.03.2026	Climate change and ocean warming
Week-10	**UNIT-4**
01.04.2026	Interpretation of SST and salinity charts of the Indian Ocean
02.04.2026	do
03.04.2026	Inventory and analysis of ISRO oceanographic missions, satellites, and data products
04.04.2026	do
Week-11	
06.04.2026	Analysis of wave characteristics along the Indian coast
07.04.2026	do
08.04.2026	Tidal analysis of selected Indian ports
09.04.2026	do
10.04.2026	Mapping of major surface currents of the Indian Ocean using atlases/GIS
Week-12	
13.04.2026	do
15.04.2026	Identification and mapping of major fishing grounds of India
16.04.2026	do
17.04.2026	Mapping coral reefs and mangrove ecosystems of India using satellite images
18.04.2026	do
Week-13	
20.04.2026	Analysis of coastal hazards
21.04.2026	do
22.04.2026	do
23.04.2026	Preparation of a thematic map on marine resources/coastal vulnerability using GIS
24.04.2026	do
Week-14	

27.04.2026	Revision
28.04.2026	Presentation of Student
29.04.2026	Class Test
30.04.2026	Presentation of Student

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Lesson Plan- January to April 2026

Name - Priyanka Rani **Department - Geography**

Class - M.Sc. Geography **Subject - Theories and Models in Human Geography**

Semester - 2nd **Subject Code - 25 PG GEO 202**

Week -1	**UNIT-1**
27.01.2026	Introduction to the subjects and its outcome & objectives
28.01.2026	Nature, scope, and significance of Human Geography
29.01.2026	do
30.01.2026	Philosophical foundations of human geographical thought
Week -2	
02.02.2026	environmental determinism, possibilism
03.02.2026	do
04.02.2026	neo-determinism, Areal differentiation
05.02.2026	do
06.02.2026	regional approach, Quantitative revolution
Week-3	
09.02.2026	do
10.02.2026	spatial science, Behavioural and humanistic geography
11.02.2026	heat budget
13.02.2026	Radical, welfare, and Marxist geography, Post-modernism, feminist geography
14.02.2026	do
Week-4	**UNIT-2**
16.02.2026	Concept of spatial organization and spatial interaction
17.02.2026	do
18.02.2026	Models of spatial interaction: gravity model and intervening opportunity model
20.02.2026	do
21.02.2026	Population theories and models: Malthusian theory and Demographic Transition Model
Week-5	
23.02.2026	do
24.02.2026	Migration theories and models, Rural settlement patterns and agricultural land-use models
25.02.2026	do
26.02.2026	Urban structure models: concentric zone, sector, and multiple nuclei models
27.02.2026	do
Week-6	
02.03.2026	Central Place Theory: assumptions, hierarchy, spacing, applications, and limitations
03.03.2026	do
04.03.2026	Applicability of classical models in the Indian context.

05.03.2026	do
06.03.2026	**Mid Term Exam**
Week-7	**UNIT-3**
09.03.2026	Location Theories: Von Thünen's agricultural location model
10.03.2026	do
11.03.2026	Weber's industrial location theory
12.03.2026	do
13.03.2026	Lösch's market area theory, Industrial location and regional development models
Week-8	
16.03.2026	do
17.03.2026	Growth pole theory and cumulative causation, Core–periphery and dependency models
18.03.2026	do
19.03.2026	do
Week-9	
23.03.2026	World-systems theory
24.03.2026	do
25.03.2026	Application of models to Indian regional development
27.03.2026	do
28.03.2026	Critical evaluation and contemporary relevance of human geographical models
Week-10	**UNIT-4**
01.04.2026	Application of gravity model using population and distance data (Indian cities)
02.04.2026	do
03.04.2026	Central Place Theory: hierarchy and spacing analysis using selected Indian towns
04.04.2026	do
Week-11	
06.04.2026	Testing Von Thünen's agricultural land-use model with Indian examples
07.04.2026	do
08.04.2026	do
09.04.2026	Urban land-use analysis using concentric zone or multiple nuclei model
10.04.2026	do
Week-12	
13.04.2026	do
15.04.2026	Population growth analysis using Demographic Transition Model (India/States)
16.04.2026	do
17.04.2026	Migration analysis using census-based data (push–pull factors)
18.04.2026	do
Week-13	
20.04.2026	Regional development analysis using core–periphery framework
21.04.2026	do
22.04.2026	do
23.04.2026	Mapping spatial interaction and accessibility using GIS tools
24.04.2026	do
Week-14	

27.04.2026	Revision
28.04.2026	Revision
29.04.2026	Presentation of Student
30.04.2026	Class Test

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Lesson Plan- January to April 2026

Name - Priyanka Rani | **Department - Geography**

Class - M.Sc. Geography | **Subject - Regional Geography of India**

Semester - 2nd | **Subject Code - 25 PG GEO 203**

Week -1	**UNIT-1**
27.01.2026	Introduction to the subjects and its outcome & objectives
28.01.2026	Nature, scope, and significance of regional geography
29.01.2026	do
30.01.2026	Approaches to regionalization: physical, economic, cultural, and planning regions
Week -2	
02.02.2026	do
03.02.2026	India as a geographical unity and diversity
04.02.2026	Physiographic divisions of India
05.02.2026	do
06.02.2026	do
Week-3	
09.02.2026	do
10.02.2026	Climate regions of India: monsoon mechanism, climatic types
11.02.2026	do
13.02.2026	Natural vegetation and soil regions of India
14.02.2026	do
Week-4	**UNIT-2**
16.02.2026	Population distribution, density, growth, and regional patterns
17.02.2026	do
18.02.2026	Population composition: linguistic, religious, and tribal regions
20.02.2026	do
21.02.2026	do
Week-5	
23.02.2026	Settlement patterns: rural and urban regions of India,
24.02.2026	do
25.02.2026	Agricultural regions of India: cropping patterns and agricultural regionalization
26.02.2026	do
27.02.2026	do
Week-6	
02.03.2026	Major industrial belts and clusters, Transport and communication regions
03.03.2026	do
04.03.2026	water, mineral, and energy resources

05.03.2026	do
06.03.2026	**Mid Term Exam**
Week-7	**UNIT-3**
09.03.2026	Concept of planning regions and regional planning in India
10.03.2026	do
11.03.2026	Regionalization by Planning Commission and NITI Aayog
12.03.2026	do
13.03.2026	drought-prone, flood-prone, tribal, desert, hill, and coastal regions
Week-8	
16.03.2026	do
17.03.2026	Regional inequalities and development challenges
18.03.2026	do
19.03.2026	Special economic regions and corridors
Week-9	
23.03.2026	Border regions and strategic regions
24.03.2026	do
25.03.2026	Sustainable regional development and environmental issues
27.03.2026	Case studies of selected Indian regions
28.03.2026	do
Week-10	**UNIT-4**
01.04.2026	Delineation of physiographic regions of India using outline maps
02.04.2026	do
03.04.2026	Climatic regionalization of India based on rainfall and temperature data
04.04.2026	do
Week-11	
06.04.2026	Mapping population density and growth patterns of Indian states
07.04.2026	do
08.04.2026	Identification and mapping of agricultural regions of India
09.04.2026	do
10.04.2026	do
Week-12	
13.04.2026	do
15.04.2026	Mapping major industrial regions and transport corridors
16.04.2026	do
17.04.2026	do
18.04.2026	do
Week-13	
20.04.2026	Regional analysis of resource distribution (minerals, power)
21.04.2026	do
22.04.2026	do
23.04.2026	Preparation of profile of a selected Indian state/region using GIS or secondary data
24.04.2026	do
Week-14	

27.04.2026	do
28.04.2026	Revision
29.04.2026	Presentation of Student
30.04.2026	Class Test

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Lesson Plan- January to April 2026

Name: Dr. Kousik Das Malakar **Department:** Geography

Class: M.Sc. **Subject:** Remote Sensing & GIS

Semester - II **Subject Code:** 25 PG GEO 204

Week 1	**UNIT - 1**
27-Jan-26	Introduction to the subject and its outcome & objectives
28-Jan-26	Nature, scope, and development of remote sensing, Radiation principles and laws of black body radiation: Planck's Law
29-Jan-26	do
31-Jan-26	Stefan Boltzmann Law, Wien's Displacement Law, and Kirchhoff's Law
Week -2	
02-Feb-26	do
03-Feb-26	Electromagnetic radiation and the electromagnetic spectrum, Energy–matter interaction
04-Feb-26	do
05-Feb-26	Atmospheric effects on electromagnetic radiation, Spectral reflectance characteristics of Earth surface features
Week-3	
09-Feb-26	do
10-Feb-26	Platforms and sensors: ground, airborne, and satellite platforms
11-Feb-26	do
12-Feb-26	Types of sensors: passive and active sensors,
14-Feb-26	do
Week-4	
16-Feb-26	Spatial, spectral, radiometric, and temporal resolutions
17-Feb-26	do
18-Feb-26	Revision
19-Feb-26	Class Test
Week-5	**UNIT - 2**
23-Feb-26	Satellite systems and sensors: Landsat, IRS, Sentinel, MODIS, Cartosat, Data products and formats
24-Feb-26	do
25-Feb-26	do
26-Feb-26	Visual image interpretation elements: tone, texture, shape, size, pattern, association
28-Feb-26	do
Week-6	
02-Mar-26	Digital image processing concepts: image enhancement, filtering, classification (supervised and unsupervised)

05-Mar-26	do
Week-7	
09-Mar-26	do
10-Mar-26	Accuracy assessment,
11-Mar-26	Applications of remote sensing in land use/land cover mapping, agriculture
12-Mar-26	do
14-Mar-26	do
Week-8	
16-Mar-26	Applications of remote sensing in water resources, forestry, and disaster management (Indian examples).
17-Mar-26	do
18-Mar-26	Revision
19-Mar-26	Class Test
Week-9	**UNIT - 3**
23-Mar-26	Concept, components, and functions of GIS,
24-Mar-26	Spatial data models: vector and raster data structures
26-Mar-26	do
28-Mar-26	Attribute data and database management systems
Week-10	
30-Mar-26	Data input, editing, and topology, Coordinate systems, map projections, and georeferencing
31-Mar-26	Spatial data quality and errors, GIS software overview (Open Source Softwares)
Week-11	**UNIT-4**
01-Apr-26	Spatial analysis techniques: overlay, buffering, network analysis, surface analysis,
02-Apr-26	do
Week-12	
06-Apr-26	Digital Elevation Models (DEMs) and terrain analysis, Spatial interpolation techniques,
07-Apr-26	do
08-Apr-26	GIS modeling and decision support systems,
09-Apr-26	do
11-Apr-26	Integration of Remote Sensing and GIS
Week-13	
13-Apr-26	Applications of GIS in urban planning, environmental management
15-Apr-26	do
16-Apr-26	Applications of GIS in resource planning, climate studies, and regional development,
Week-14	
20-Apr-26	do
21-Apr-26	do
22-Apr-26	Emerging trends: Web GIS, GPS integration, and geospatial governance.
23-Apr-26	do
25-Apr-26	Student's Problem
Week-15	
27-Apr-26	Student's Problem
28-Apr-26	Class Test
29-Apr-26	Presentation of Student
30-Apr-26	Presentation of Student

Signature of Faculty
Dr. Kousik Das Malakar

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Lesson Plan- January to April 2026

Name - Sachin	**Department - Geography**
Class - M.Sc. Geography	**Subject - Political Geography and**
Semester - 2nd	**Subject Code - 25PG GEO 207**

Week 1	**UNIT-1**
27-Jan-26	Nature, scope, and significance of Political Geography
28-Jan-26	do
29-Jan-26	do
Week 2	
2-Feb-26	Relationship between Geography, Politics, and Power
3-Feb-26	do
4-Feb-26	Evolution of political geographical thought
5-Feb-26	do
Week 3	
9-Feb-26	State: concept, origin
10-Feb-26	do
11-Feb-26	do
12-Feb-26	State: elements, and functions
Week 4	
16-Feb-26	do
17-Feb-26	Boundaries: types, functions, and boundary disputes
18-Feb-26	do
19-Feb-26	Electoral geography: spatial patterns of voting behaviour, voting patterns
Week 5	
23-Feb-26	do
24-Feb-26	Political regions, constituency delimitation, and gerrymandering.
25-Feb-26	do
26-Feb-26	Class Test
Week 6	**UNIT-2**
2-Mar-26	Meaning and scope of geopolitics
5-Mar-26	Classical geopolitical theories: Ratzel’s organic theory of the state
Week 7	
9-Mar-26	Mackinder’s Heartland theory
10-Mar-26	do
11-Mar-26	Mahan’s Sea Power theory
12-Mar-26	do
Week 8	
16-Mar-26	Spykman’s Rimland theory
17-Mar-26	do

18-Mar-26	Cold War geopolitics and balance of power
19-Mar-26	do
Week 9	
23-Mar-26	Modern and critical geopolitics
24-Mar-26	do
25-Mar-26	Post-Cold War geopolitical order
Week 10	
30-Mar-26	do
31-Mar-26	Geopolitics of globalization and regional blocs
1-Apr-26	do
2-Apr-26	Mid-Term Exam
Week 11	**UNIT-3**
6-Apr-26	Geopolitics of natural resources: water, energy, and minerals
7-Apr-26	do
8-Apr-26	do
9-Apr-26	Geopolitics of oceans
Week 12	
13-Apr-26	do
14-Apr-26	Geopolitics of cyberspace and climate change
15-Apr-26	do
16-Apr-26	Political geography of borders, conflicts, and terrorism
Week 13	
20-Apr-26	India's geopolitical position in the Indian Ocean region
21-Apr-26	India-China-Pakistan-Bangladesh relations
22-Apr-26	do
23-Apr-26	Regional organizations and global power structures,
Week 14	
27-Apr-26	Emerging geopolitical challenges in the 21st century.
28-Apr-26	Presentation of Student
29-Apr-26	Revision
30-Apr-26	Revision

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Lesson Plan- January to April 2026

Name: Dr. Kousik Das Malakar **Department:** Geography

Class: M.Sc. **Subject:** Sacred Geography

Semester - II **Subject Code:** 25 PG GEO 212

Week 1	**UNIT - 1**
29-Jan-26	Introduction to the subject and its outcome & objectives
31-Jan-26	Meaning and scope of sacred geography, Geography in Indian philosophical traditions, Cosmological understanding of space (Desha), time (Kala), and direction (Dik)
Week -2	
05-Feb-26	Concept of sacred space in Vedic, Puranic, and Itihasic literature, Panchabhuta and landscape symbolism
Week-3	
12-Feb-26	do
14-Feb-26	Sacred cosmograms: Mandala and Yantra, Tirtha concept and spatial sanctity, Relationship between nature, divinity, and human settlements in Indian thought
Week-4	
19-Feb-26	do
Week-5	
26-Feb-26	Interface between religion and science in sacred spaces: temple architecture aligned with solar and lunar movements (e.g., Sun temples), geomantic principles, ritual practices, and cultural customs.
28-Feb-26	do
Week-6	
05-Mar-26	Class Test
Week-7	**UNIT - 2**
12-Mar-26	Sacred rivers of India: Sacred mountains, forests and groves
14-Mar-26	do
Week-8	
19-Mar-26	Pilgrimage geography: Char Dham, Jyotirlingas, Shakti Peethas, and Pancha Bhoota temples
Week-9	
28-Mar-26	do
Week-10	
02-Apr-26	Sacred cities and cultural landscapes: Kashi, Ayodhya, Mathura, Ujjain
Week-11	
09-Apr-26	Sacred cities and cultural landscapes: Puri, and Madurai, Festivals and ritual landscapes,

11-Apr-26	do
Week-12	
16-Apr-26	Sacred geography and environmental conservation, Contemporary relevance of sacred geography in culture and sustainability
Week-13	
23-Apr-26	Student's Problem
25-Apr-26	Class Test
Week-14	
30-Apr-26	Presentation of Student

Signature of Faculty
Dr. Kousik Das Malakar