## GEOGRAPHY
### MA/MSc Syllabus

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<tr>
<th>Semester</th>
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<td>GEO-PG-C102</td>
<td>Climatology and Biogeography</td>
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<td>GEO-PG-C103</td>
<td>Economic Geography: Concepts, Principles and Techniques</td>
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<td>GEO-PG-C202</td>
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<td>Regional Geography of Nepal and Eastern Himalayas with special reference to Sikkim</td>
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<td>Rural Development – Planning and Policy with special reference to North-East India</td>
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<td>Social and Cultural Geography with special reference to India and Northeast India</td>
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SEMESTER-I

GEO-PG-C-101: Geomorphology

Unit I: Fundamentals
Development of Geomorphologic Thought: classical and modern; Catastrophism Vs Uniformitarianism and Neo-catastrophism.
Fundamental Concepts in Geomorphology
Recent Trends: process studies, structural, quantitative approach and models of dynamic equilibrium

Unit II: Crustal Movements
Isostasy and Crustal Equilibrium in Major Relief Features of the Earth
Continental Drift, Sea Floor Spreading, palaeo-magnetism
Plate Tectonics: types of plates, boundaries, movement, Tsunami, Earthquakes, Neo-tectonic process and Expanding Earth

Unit III: Gradation Processes and Landforms
Concept of Gradation: Degradation and Aggradation
Weathering and Mass Movements: types and processes, Models of slope evolution,
Fluvial, Glacial, and Aeolian Processes and Landforms and topographic evolution
Hydro-geometric function of river, Marine geomorphology and Applied Geomorphology
(Urban, Mineral and Environment)

Unit IV: Morphometric Techniques and Geological Maps
Drainage analysis: stream order, frequency, density and bifurcation ratio,
Relief and terrain analysis, Determination of average slopes (Wentworth, Smith, Raiz and Henry)
Interpretation of Geological maps: construction of geological section (folded and faulted, and unconformities).

(Total 3 hours for theory + 2 hours for consultation for Exercises and Assignments =5 contact hours/week)

Readings:

GEO-PG-C-102: Climatology and Biogeography
Unit I: Fundamentals of Climatology

Development of climatology, its scope and its contemporary relevance. Structure and Composition of the atmosphere. Elements of Climate: Insolation, Temperature, Moisture, Pressure Systems; Wind systems and General Circulation of the atmosphere. Air masses and Atmospheric Disturbances, tropical and temperate cyclones; their origin and occlusion.

Unit II: Classification and Dynamics of Climate

Principles of Climatic classification; Classification of world climates by Koppen and Thornthwaite; Major climatic regions of the world. Climates of India, Monsoons and Dynamics of Monsoon, Consequences of Monsoon failure in India. Regional climate with special reference to Himalayas. Climate change: Concepts, Evidences and theories of climate change, Global Warming Vs Global Cooling and its impact on society; IPCC and global climate conventions and protocols.

Unit III: Fundamentals of Biogeography

Scope and Development of Biogeography, Environment, Habitat and Plant-animal association, biome types. Element of plant geography, distribution of forests and major communities. Zoogeography and Bio-diversity, its significance with special reference to India and biodiversity resources of the North-East India. Conservation of Biotic Resources.

Unit IV: Methods and Techniques

Isopleths and line graphs, Venn diagram, Rainfall dispersion diagrams, Climograph & Hythergraph. Calculation of climatic indices: rainfall-runoff relationship, and concept of hydrographs. Interpretation of weather maps, Synoptic climatology and weather forecasting methods.

(Total 3 hours for theory + 2 hours for consultation for Exercises and Assignments =5 contact hours/week)

Readings:
GEO-PG-C-103: Economic Geography: Concepts, Principles and Techniques

Unit I: Fundamentals

Definition, Scope and development of economic geography
Economic activities and sectors (primary, secondary, tertiary and quaternary)
Concept of economic development, indicators of development, sustainable development, Human Development
Disparities in world economic development, Development theories: Divergence Convergence Model (Myrdal-Hirschman), Dependency Theory (Frank-Amin)

Unit II: Location Theories

Industrial Location theories: Transport cost, Weberian Location analysis, agglomerations and Post-Fordist localisation
Agricultural location model (Von Thunen) and Diffusion Theory (Haggerstrand)
Spatial organization theories: Christaller’s Central place theory and Losch’s General theory

Unit III: Resources and Economic Regions

Concept and taxonomy of resources, resource depletion, conservation and sustainability of resources
World agricultural systems, agricultural regions and problems of food-security, Industrial complexes, Industrial regions of the world
World Trade in major commodities and services, GATT, WTO, EU and Emerging markets

Unit IV: Models, Techniques, and Interpretation

Sectoral analysis, Isodapanes and Weight Triangle, Gravity Model, Agricultural Efficiency, Intensity, Crop combination, cropping pattern, Transport Flows and Networks.
Indices of Development

(Total 3 hours for theory + 2 hours for consultation for Exercises and Assignments =5 contact hours/week)

Readings:

**GEO-PG-C-104: Quantitative Methods and Computer Applications in Geography**

**Unit I: Geographical Data: Concept and Applications**
- Univariate Method: Measures of central tendency, Measures of absolute and relative dispersion,
- Techniques of Bivariate Analysis: The Scatter Plot, Correlation Analysis, Regression Analysis,
- Analysis of Variance (ANOVA)
- Calculation of Growth rates: simple, compound and exponential

**Unit II: Indices and their application**
- Sopher’s Index, concentration index, location quotient, Lorenz Curve and Gini co-efficient

**Unit III Theory of Probability**
- Introduction, Random Experiment, Outcome, Event; Terminology used in Probability;
- Theorems of probability; Theoretical Distribution: Binomial, Poisson, Normal

**Unit IV: Sampling theory**
- Meaning and object of sampling, Types of sampling, Sampling Distribution, Standard Error
- Testing of Hypothesis: Parametric tests- ‘z’, ‘t’ and ‘F’ tests
- Non-parametric test: Chi-Square

(Total 3 hours for theory + 2 hours for consultation for Exercises and Assignments = 5 contact hours/week)

**Readings:**
SEMESTER II

GEO-PG-C-201 Systematic and Regional Geography of India with special reference to NE India

Unit I: Physical Bases of Geography of India

Relief, Geology and Physiographic Divisions Climate and Climatic Divisions Drainage System and Water Resources Natural Vegetation and Soils Regions of India

Unit II: Historical, Cultural and Economic Geography of India

Evolution of regions and boundaries since the British period Languages and Religions in India Population: Growth, Density and Distribution; population problems Indian Agriculture: Its regional distribution and problems Industries, industrial locations and industrial region Transportation Systems and Routes

Unit III: Regional Divisions of India and Regional Geographies

Basis of Regionalisation of India: OHK Spate, RL Singh, and AsokMitra Macro Region: Extra-Peninsular India (The Himalayas) with emphasis on Eastern Himalaya Selected Meso-regions: UP Himalaya, Upper Ganga Plain, Chotanagpur Plateau, Meghalaya Plateau Micro-regions: Kashmir Valley, Sikkim Himalaya, Kaveri Delta, and Konkon Coastal Plains

Unit IV: North-Eastern Region

North-East India as a region Physical divisions and characteristics (Physiography, drainage, climate and bio-diversity); Population growth and distribution, Population issues in North-East India Economic activities: agriculture (types and patterns) and Natural resources and manufacturing industries; Development issues and problems;

Readings:
1. Deshpande, C.D. (1992). India – A Regional Interpretation. , New Delhi, ICSSR and Northern Book Centre
4. Sen Gupta, P. and Sdaysuk, Galina. (1968). Economic Regionalisation of India – Problems Approaches, Monograph No.8, New Delhi: Census Commissioner, Govt. of India
10. Govt. of India (Yearly) *Economic Survey*. Ministry of Finance, New Delhi: Oxford University Press India

**GEO-PG-C-202: Remote Sensing and Geographic Information System (Practical)**

**Unit-I: Basics of Remote Sensing**
Introduction: definition and history and Physics of Remote Sensing-
Electro- Magnetic Radiation, Radiation laws, Spectral Signatures, and spectral response of objects and Elements of interpretations Platforms, satellite system- Velocity, Geostationary and Sun synchronous satellites;
Sensors-Concept of IFOV, Resolution (MSS, microwave, thermal and hyperspectral)

**Unit II Analysis of Remote Sensing Data**
Basics of Geometry of aerial photograph, determination of Scale and height, image parallax;
Visual interpretation (interpretation keys and elements, Physical and cultural features)
Digital image processing-data formats, radio metric and geometric correction
Image enhancement-(contrast, low and high pass filters, PCA, and vegetation index transforms, Image Classification-Supervised and unsupervised

**Unit III: Basics of GIS**
Components of GIS, Data types and data models, Data input (scanning, digitization, topology creation
Non spatial data (linking, query and display) thematic mapping
GNSS-GPS (Space Segment, Satellite Triangulation, Pseudo Random Code, Control segment), DGPS;

**Unit IV: RS and GIS combined**
DEM and 3D visualization, Spatial analysis- slope aspect, flow, accumulation, direction, stream order scheme, watershed analysis, Remote Sensing application for agriculture, forest and hydrology.

**Readings:**
GEO-PG-C-203: Population and Settlement Geography

Unit I: Concept, distribution and growth
Population Geography: Evolution, Scope and Subject matter, Relationship with Demography and other Social Sciences, Population Distribution and Growth: World Patterns and their determinants; Population distribution and growth in India; Demographic Transition Theory; Demographic Dividend

Unit II: Population Change
Fertility and its measures; Mortality and its measures; Mobility; Factors affecting Population Change; World Patterns of Fertility, Fertility in India; Mortality Patterns in the world and India

Unit III: Migration
Concept; Migration Types; Determinants of Migration; consequences of Internal and International Migration; Laws of Migration

Unit IV: Settlements
Settlements: Forms, Types and Patterns of rural settlements with special reference to India; Transformation of rural settlements
Urban Settlements: Urbanisation Process; Urbanization in India; Size-Class Distribution of urban settlements; Distribution of cities in India, Rural-Urban migration, Mega-cities: opportunities and challenges; Slums and urban poor

Readings:
GEO-PG-O-204: Environment and Development

Unit I: Concepts
i. Environment, Ecosystem, Ecosystem Services
ii. Economic Growth, Development, Sustainable Development

Unit II: Environmental Concerns related to Development
i. Global Environmental Degradation: Drivers of Ecosystem/Environment Change, Deforestation and Loss of Biodiversity, Pollution, Climate Change, Implications for Human Security

Unit III: State of India's Environment
ii. Population, Urbanisation challenges, Mega-Development Projects
iii. Socio-environmental Movements, Environmental Leaders
iv. Climate Change and Disasters with particular focus on the Himalaya
v. Important Environmental Policies and Laws in India

Unit IV: Introduction to Environmental and Social Impact Assessment
ii. Evolution of EIA and SIA
iii. EIA Regulations in India
iv. SIA: Legal Frameworks
v. Public Participation and Decision Making
vi. Benefit Sharing Mechanisms in Development Projects

Readings:

**SEMESTER III**

GEO-PG-C-301: History of Ideas in Geography

**Unit I: Emergence of the discipline**
- Historical Development: Contribution of major proponents in geography in the ancient world (the Greeks, the Romans and Indians)
- Development of Geography during the Middle Ages
- Reformation, Age of Enlightenment and pre-Modern geographies (Varenius and Kant)
- Age of Discovery and Exploration.

**Unit II: Shaping the discipline**
- Nineteenth Century Geography: Ritter and Humboldt
- Ratzel, Semple, Huntington and Taylor - Environmental Determinism
- Possibilist School; La Blache, Brunches and the French school
- Influence of Darwinism on Geography

**Unit III: Towards scientific explanation and theory building**
- Early 20th Century Geographies: Sauer--Cultural School; Hartshorne—Regional School (areal differentiation);
- Dualisms—Regional Vs. systematic, Physical vs. Human
- Positivism in Geography, Quantitative Revolution and Logical Positivism

**Unit IV: Geography as Social Science**
- Contemporary geography: Behaviouralism and Humanistic Geography
- Radical and Marxist Geography, Gender and Feminist Geography, Postcolonial Geography

**Readings:**

**GEO-PG-C-302: Regional Development and Planning**

**Unit I: Concepts and Theories**
- Concept and Typology of a Region: Formal, Functional, and Planning Regions
- Concept of regional development and Planning
- History of development of Regional Planning
- Scope, objectives, Rationale and Principles of Regional planning
- Theories of Regional Development

**Unit II: Approaches to Regional Planning**
- Types of Planning
- Environment and Regional Planning
- Settlements (Christallar, Isard, Weber etc) with particular focus on Challenges of Mega City Regions
- Remote Sensing /GIS and Regional Planning
- Migration and Regional Planning
- Transport and Regional Planning

**Unit III: Regional Planning practices in India**
- Regional development planning in Indian National Plans
- Metropolitan Planning, Resource Development Region Planning, National Capital Region Planning, Special Purpose Regions Planning- HADP, BADP, DPAP, NEC and NE Region Planning , Multi-level planning, Decentralized Planning
- Legislative Frameworks of Regional Planning (including 73rd and 74th Amendment Acts)

**Unit IV: Levels of Regional Development in India**
- Sources of Data
- Measures of regional development and disparities in India
- Human and State Development Reports
- Case Studies: Urbanisation, Migration, Health, Education, Employment and Infrastructure with particular focus on North East India.

**Readings:**


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**GEO-PG-O-303: Regional Geography of Nepal and Eastern Himalayas with special reference to Sikkim and Darjeeling**

**Unit I: The Setting**

General background to Nepal and Eastern Himalayas and its divisions, Nepal, Darjeeling-Sikkim and Bhutan Himalayas, Arunachal Himalayas, Geological evolution, Physiography and drainage systems Climate, natural hazards, natural vegetation and soils

**Unit II: Diversities and Plurality**

Cultural Evolution, Ethnicities and Cultural diversity and regions Political history and state formations, Geo-political contexts of Nepal and Eastern Himalayas and cross border issues. Population distribution and growth, population problems, rural and urban settlements

**Unit III: Economy**

Agrarian economy, shifting cultivation, Terrace and plantation farming, Forestry and foraging economies, Rural livelihoods Industries, organized sectors and traditional products, occupations and employment Communications and trade with special emphasis on border trade with China (Tibet), and Bangladesh

**Unit IV: Regional Geography of Sikkim**

Physiography, climate and ecological zones, drainage and water resources, bio-logical resources and biodiversity Peopling, population distribution, ethnicities, Population growth Economic enterprises in Sikkim, adventure and eco-tourism, Agriculture and plantation economies, Manufacturing including traditional crafts Problems of economic and cultural development of Sikkim

**Readings:**


12
GEO-PG-O304: Rural Development – Planning and Policy with special reference to North-East India

Unit-I: Concepts
Rural Concepts, contestation and dynamics of rural space-created, produced and reproduced; Processes of rural transformation–Imagination of rural, Exploitation of rural, Consumption of Rural, Developing Rural, Living with Rural, Performing of Rural, Regulation and Remaking of Rural.

Unit-II: Rural development: principles and process
Concept of rural Development, basic elements, dilemmas
Paradigms/theories and rural development, globalization and sustainable rural development and measures of rural development,

Unit III: Rural Development Programmes and Policies
Rural development policy in India, Rural Poverty Alleviation Programmes and sustainable livelihoods. Financing bodies of rural Development,
73rd Amendment, Role of rural market (periodic and permanent) in rural development,

Unit IV: Rural Development in North-East.
Rural Infrastructure planning: physical infrastructure-connectivity,
Decentralised Planning for rural areas: Autonomous Hill Development Council, Village council, sixth schedule provision for local institutions in North-East.
Traditional Institutions: Dzumsa, Darbar Shnong, ADC etc.
Civil society institutions, SHG, etc. Problems and Challenges.
Rural development programmes and policies in Sikkim

Readings:

**SEMESTER IV**

**GEO-PG-E-401: Natural Hazards and Disaster Management**

**Unit I: Concepts and Types**

i. Concepts and definitions: hazard, disaster, risk, uncertainty, resilience, adaptation, vulnerability,
ii. Classes/Types of Disasters (Natural and Anthropogenic): Earthquake, Mass Movement, Forest Fire, Floods, Famine, Drought, Biological disaster, Industrial disaster, Nuclear disaster, War.
iii. Spatial Dimensions of the Natural Hazards and Disasters

**Unit II: India and Natural Disasters**

i. Disaster Profile of India: identifying area of Vulnerability
ii. Natural Disasters in the Himalaya
iii. Impact of Natural Disasters on Human Security

**Unit III: Disaster Vulnerabilities of Sikkim**

i. Earthquake (with focus on 2011)
ii. Landslide
iii. Flood (including GLOF)
iv. Forest Fire
v. Newerhazards and disaster challenges (Mega Hydropower projects, Pharmaceutical Industries, Climate Change etc)

**Unit IV: Disaster Management**

i. History of DM: Hyogo and Sendai Frameworks
ii. Pre Disaster: Prevention, Mitigation, Preparedness
iii. Post Disaster: Response and Recovery
iv. Key Players in Disaster Management
v. Training and Capacity Building
iv. Role of Media and RS and GIS in disaster studies
GEO-PG-E-402: Geography of Tourism with special reference to Sikkim

Unit-I: Concept and Issues of Tourism

Concepts and typology, emerging issues in tourism, Modern tourism, Geography of Tourism- Development, Status, Spatial and temporal pattern of international tourism.

Unit-II: Trends and Tourism Geographies

Demand and Motivation: Models, factors influencing both tourist generating and destination areas, consumption and identity, Constraints to tourism.
Trends of tourism: Urban and Rural Tourism, Coastal tourism, Mountain tourism, Heritage tourism, pro-poor tourism, Politics of tourism, Political Economy of Third World tourism.

Unit- III: Impacts of Tourism and Planning

Economic, Socio-cultural, and Environmental Impacts, Resource management and Carrying Capacity, the Limit of Acceptable Change and Impact on Physical Environment:
Policies, Programmes and Planning in Tourism, Role of NTAS, ITDC, ICPB, National Tourism Board and Conservation Policy

Unit-IV: Tourism in Sikkim

Development of Tourism in Sikkim: Infrastructure development, tourist demand and Employment, Potentials and Challenges, Tourism sites and locations; tourist information systems, Tourism and its effects on environment; moral and ethical issues in high-tourist areas, Eco-tourism and alternative forms of tourism potentials in Sikkim, Government policies and Programmes.

Readings:
GEO-PG-E-403: Agricultural Geography with special reference to North-East India

Unit I: Origin and Development

Nature, Scope and Significance of Agricultural Geography
Origin and development of agriculture, diffusion and adoption of crops and animals and gene centres.
Approaches to the study of Agricultural Geography: commodity, regional and systematic
Political Economy of Agriculture in India and Agrarian distress.

Unit II: Determinants of Agriculture

Determinants: Physical, Socio-economic and technological
Agricultural Regionalization: Cropping pattern, crop combination, diversification and specialization, and degree of commercialization
Crop intensity, efficiency and productivity patterns with special reference to India;
Green Revolution - its regional impacts and consequences
Agricultural marketing systems

Unit III: Agricultural Systems in the World

Whittlesey’s classification of agricultural regions and recent changes
Von Thunen’s theory of agricultural location and recent modifications
Agricultural Land use classes in India
Land capability classification: methods and applications

Unit IV: Agriculture in North-East India

Shifting cultivation: system and patterns; consequences of shifting cultivation;
Shifting cultivation and livelihoods
Peasant farming: small scale rice-farming in plains and hills, terrace farming, organic farming,
livehoods and rising landlessness in the region
Plantation farming in the North-East: Its colonial history, patterns of tea-plantation,
Plantation cropping in Sikkim: Problems and Prospects

Readings:

**GEO-PG-E-404: Geography of Natural Resources**

**Unit I: Definition, scope and classification of resources**

Natural resources and human societies, Global distribution of natural resources, Club of Rome studies and limits to availability of natural resources, Political economy of global natural resources, in respect to oil and oceanic resources

**Unit II: Global distribution of energy resources**

Coal, oil, natural gas and hydro-power resources, the energy deficit and surplus areas
Global energy trade and situation of India in global energy scenario
Global distribution of principal minerals: Ferrous (Iron), Non-ferrous (Aluminum) and Noble metals (Copper) India’s production, distribution and consumption of principal minerals (Iron, Aluminum & Copper)

**Unit III: Forest and Biodiversity resources and their significance to human societies**

Global distribution of forest resources; The Equatorial Rainforests, the Tropics, the mid-latitude and high latitude forests; forest products and global trade, India’s forest resources and their conservation, Significance of global fresh-water resources, confined, flowing and ground-water resources; their distribution, Identification of chronically water deficit and surplus areas; India’s situation in global fresh-water resources

**Unit IV: Concept and principles of conservation of resources**

Recycling, efficient and multiple-use of natural resources, Principles of Sustainable Development and the Brundtland Report, Economic efficiencies and trade-offs in conservation strategies, Public policies for conservation strategies, market forces, fiscal methods, incentive systems and regulatory systems of management, India’s resource management policies (energy, minerals, forests and water resources)
Readings:
4. Mathew, R. Simons (2000). Revisiting the Limits to Growth: Could the Club of Rome Have Been Correct, After all? (Part I); Published by Great Change.org. Archived Sep 30

**GEO-PG-E-405: Urban Geography**

**Unit I: Understanding Urban Geography**
Nature and scope of urban geography; Concepts and Theory in Urban Geography; Preconditions for urban growth; Theories of Urban origins; Early Urban Hearths; Spread of urbanism; Urban Revival in Western Europe; Nature of the cities during ancient, medieval and modern times

**Unit II: The Global Context of Urbanisation and Urban Change**
Urbanisation of the globe, Changing Distribution of world’s Urban population; Causes of Urban Growth, Megacities and Million Cities; urbanisation and Economic Growth; the urbanisation cycle; Types of urban regions; Urban morphology; Changing city landuse, urban sprawl and urban fringes

**Unit III: Processes and outcomes of Urbanisation in India**
Urbanisation and Urban expansion in India; Distortions in urban system; Economic base; functional classification of towns; Problems of small and medium towns in India; Indian Mega-cities

**Unit IV: Contemporary cities**
Contemporary issues in urban India: a) urban infrastructure b) housing, slums and urban poor; c) urban governance
Urban environment: pollutions, heat island, urban flooding and urban crimes;
Policy responses: City planning, JNNURM, Smart Cities and other relevant policies

**Readings:**
GEO-PG-E-406 Social and Cultural Geography with special reference to India and North-East India

Unit I: Social Geography- evolution and relevance

Definition: Nature and Scope and evolution of Social Geography in the Anglo-Saxon World, Society and Environment, Social Evolution, Social Structure, Social Diversity and Plurality (Examples should be drawn from North-East India, as far as practicable)

Unit II: Concepts and themes

Social Space and Social Area Analysis, Social exclusion and Social Justice; Geography of Social Well-being, Social Pathology and Social Action (Examples should be drawn from North East India, as far as practicable)

Unit III: Cultural Geography


Themes and Concepts in Cultural Geography: Culture Area, Cultural Region, Cultural Diffusion and Assimilation, Cultural ecology, Cultural Interaction, Cultural Landscape.

Unit IV: Components of Cultural Geography

Types and Pattern of World Cultural regions: Language, Religion, Ethnicity; Cultures and cultural regions in North East India in particular reference to religion; Ethnicities in North-East

Readings:


8. Subbarao, Bendapudi (1958). *The Personality of India, Faculty of Arts*, Baroda: MS University


**GEO-PG-E-407: Geography of Social Well-being**

**Unit I: Formulation of welfare geography**

Welfare theme in human geography, Welfare Geography and Social Well Being: Theoretical approaches and development; Well-being and Level of Living, Discrimination, Deprivation and Poverty: Concept of absolute and relative deprivation, Social differentiation, Discrimination, Deprivation and exclusion, patterns of rural and urban poverty

**Unit II: Indicators of Social Well-being**


**Unit III: Education and Well-being**

Concept of human resource development: Education and human resource development, education and enlarging choices, empowerment and wellbeing
Education and literacy in developing countries, Social and spatial disparity in literacy attainment in India, female literacy in India, regional variations, social access to education
Education, occupational changes, employment and un-employment in India
Education and social change

**Unit IV: Health and Well-being**

Health and social wellbeing: health care systems (public and private) in India; Disparity in healthcare provision in India.
Disease, disease prevalence and disease ecologies in India; Environment and health with special reference to large urban areas of India; Occupational health and associated risks; Poverty and health in India
Readings:

GEO-PG-E-408
Political Geography with special reference India and East and South-East Asia

Unit I: Fundamental concepts of political geography
Emergence and development of political geography: History, Definition, and Scope
Approaches to study political geography: World System, Power, State and Feminist Electoral Geography-Basic Concepts

Unit II: Concepts and Theories
Concept and theories: Nation, Nation-state, State, and Nationalism (Concept of organic state-Ratzel, Spencer and Schaffle; Nation - Primordialist and Constructivist Approaches)
Frontiers, Borders and Boundaries
Geopolitics: Theory of Heartland, Rimland, Crush zone and Sea Power Geo-strategy, Critical Geopolitics

Unit III: India and its Geopolitical Perspective
Politico-geographic factors in the rise of Indian federalism; identity and identity politics
India and its geopolitical perspective
Geopolitical significance of the Indian Ocean, problems and prospects

Unit IV: India’s North-East and South East Asia
India’s North-east and neighbouring countries: borders, boundaries; agreements and disputes with China, Myanmar and Bangladesh
India’s Look-East Policy, transport and trade expansion with China, ASEAN countries, free-trade agreements
Rise of China as an economic power-house and relationship with India: North-East perspective

Readings:

GEO-PG-E-409: Geography of Borderland with special reference to North-East India

Unit-I: Concepts and Typology

Concepts, Theories, Typology of Borders, Border and trans-border region, problems of Border studies.

Unit-II: Trans-Border Interactions

Borderland societies and cross-border-cultural Identities, Trans Border Mobility, Border Management-border and trans-border policies.

Unit-III: Borders of North-East India: Issues & Challenges

Case studies: Indo-Myanmar, Borders in the Eastern Himalaya, Indo-Bangladesh Border

Unit-IV: Trade, Communication and Conflicts

Border and Trans-border network and linkages. Border Trade, Haats and Trade through borders, Informal Trade. Channels of communication in Border areas. Borders and conflict resolution


**GEO-PG-E-410: Gender and Space**

**Unit I: Conceptualizing Gender within Geography**
Social construction of the feminine and masculine, Development of and theoretical approaches to the study of Gender in geography;
Examining Gender in relation to space: Division of space in to private and public spaces, Gendered environments, gendered access to and experience of space; spatial variations in the construction of gender

**Unit II: Spatial Patterns and modes of Gender discrimination and inequalities**
Patriarchy, Matriarchy, Matriliny and Matrilocality, Gender and social values;
Social space and gender, creation of gendered space and reproduction of gendered space

**Unit III: Gender disparities in education and health**
Global pattern and the Indian situation;
Women in occupations and employment, social assignments of work and work preferences
Crime against women (home and work environment), gender stereotypes and representation in media

**Unit IV: Gender identity, gender relationships, strategic and practical domains**
Gender Policy and practice in India;
Problems of empowerment of women in India
Gender and development

**Readings:**

**GEO-PG-C-411 FIELDWORK AND DISSERTATION**

**Unit-I: Pre-Fieldwork Phase**

Ideas and importance of fieldwork in Human and Physical Geography, selection of research theme and location, nature of data in geographical research, methods and techniques of data collection, operational and ethical issues in fieldwork.

**Unit-II: Fieldwork Phase**

Hands on training and teamwork skills- interacting with respondents, modes of observation, types or modes of collection of data, error finding and rectification, distribution of collective responsibilities, preparation of daily schedule

**Unit-III: Post-Fieldwork**

Storing, cleaning and tabulation of data, Analysis, interpretation and presentation of data, Report Writing-types &stages of report, format of writing and referencing.

**Unit-IV: Presentation and Evaluation**

Note: The Field work is to be of 2 to 3 weeks. It should preferably be taken to anywhere in the North-East India or Himalaya in keeping with the thrust areas of the department. The Department should have field work equipment (including kitchen utensils, stoves, tents and sleeping bags etc).

Tour shall be undertaken during the winter vacation after the Semester-III examination. The students shall submit dissertations and defend their methodologies and findings before the entire faculty plus one external examiner at the end of the IV semester. The average of marks given by
internal faculty members shall be counted out of 50% and the external examiner shall mark out of the remaining 50%.

Readings: