

University of Kalyani



Department of Geography

SYLLABUS

M.A. / M.Sc. COURSE IN GEOGRAPHY

**2 Year PG Course (Semester System with Credit and
Course)**

(With Effect From: 2021-2022)

Department of Geography

University of Kalyani

Kalyani, Nadia-741235, West Bengal

SEMESTER III

Paper code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voice	Credit	Marks
GEO/CC/T-313	Social Geography, Cultural Geography and Economic Geography	Theory	10	40	4	50
GEO/CC/T-314	Political Geography and Historical Geography	Theory	10	40	4	50
GEO/CC/T-315	Geography of Hazards and Disasters	Theory	10	40	4	50
GEO/DSE/AG/T-316/ GEO/DSE/EG/T-316/ GEO/DSE/UG/T-316/ GEO/DSE/FG/T-316	Agricultural Geography-I (Special Paper)/ Environmental Geography-I (Special Paper)/ Urban Geography-I (Special Paper)/ Fluvial Geomorphology-I (Special Paper)	Theory	10	40	4	50
GEO/CC/P-317	Quantitative Techniques in Geography	Practical	15	60	6	75
GEO/SEC/P-318	Field Report	Practical	5	20	2	25
	Total		60	240	24	300

GEO: Geography, CC: Core Courses, T: Theory, P: Practical, DSE: Discipline Specific Elective, SEC: Skill Enhancement Courses

SEMESTER-III						
Paper Code	Paper	Theory/ Practical	Internal Assessment / Evaluation	Examination/ Report/ Viva-Voce	Credit	Marks
GEO/CC /T-313	Social Geography, Cultural Geography and Economic Geography	Theory	10	40 (Semester-end Examination)	4	50
<p>Unit-1: Development of Social Geography; Concept of human ecology; Concept of space: Place, space and locale,</p> <p>Unit-2: Society: Elements, structure and processes; Social exclusion and inclusion</p> <p>Unit-3: Geography of inequality: race, ethnicity, gender and caste; Ethno-ecology of PVTGs in India</p> <p>Unit-4: Welfare Geography: Social well-being, HDI, GEM</p> <p>Unit-5: Development of Cultural Geography; Concept of cultural ecology</p> <p>Unit-6: Mosaic of culture, language, religion and customs</p> <p>Unit-7: Role of technology for the evolution of culture; Cultural landscape; Cultural diffusion</p> <p>Unit-8: Migration and Diaspora; Indian Diaspora in USA</p> <p>Unit-9: Concept of agricultural region, Changing perspective of Agriculture; Concept of industrial region, Changing perspective of Industry</p> <p>Unit-10: Theories and Models of spatial interaction (E. Ullman and M.E.Hurst)</p> <p>Unit-11: WTO in international trade; Role of GATT in LPG Economy and its impact on Industry and trade; Forward trading and E-commerce</p> <p>Unit-12: From Export Processing Zone to Special Economic Zone; Exclusive Economic Zone</p> <p>Mode of Internal Evaluation: Seminar Presentation any aspect of Social /Cultural/Economic Geography</p>						

SEMESTER-III

Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva-Voce	Credit	Marks
GEO/CC /T-314	Political Geography and Historical Geography	Theory	10	40 (Semester-end Examination)	4	50

Unit-1: Basic perspective of Political Geography; Geographical perspectives on formation of State; Concept of frontiers and boundaries

Unit-2: Concept of State after Ratzel and Marx

Unit-3: Colonialism, Imperialism and Federalism; Core-periphery concept

Unit-4: Politico-economic blocs: SAARC, EU and BRICS

Unit-5: Concept of Geopolitics; Geopolitical significance of international water disputes: India and its neighbouring countries; Geopolitics of petroleum

Unit-6: Concept of Electoral Geography; Approaches to the study of electoral politics: Spatial and ethnic behavioural approaches

Unit-7: Scope and content of Historical Geography; Historical Geography and Historiography

Unit-8: Ancient period: Territorial organization of JANAPADAS in India

Unit-9: Agriculture, industry, trade and urbanization under the Mughal Empire

Unit-10: Plantation farming and textile industry during Colonial India

Unit-11: Post- colonial urbanization in India

Unit-12: Partition of India and linguistic formation of state; Deterritorialisation for the formation of new provinces in India in the new millennium

Mode of Internal Evaluation: Class test

SEMESTER-III

Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/CC/T-315	Geography of Hazards and Disasters	Theory	10	40 (Semester-end Examination)	4	50

Unit-1: Concept and types of hazards and disasters

Unit-2: Assessment of risk and vulnerability

Unit-3: Concept of hazard reduction and disaster management

Unit-4: Climatic hazards: Tropical cyclones (prediction, precaution and mitigation)

Unit-5: Marine hazard: Tsunami (prediction, precaution and mitigation)

Unit-6: Hydrological hazards: Flash floods in Himalayan Region and floods in southern part of West Bengal

Unit-7: Mountain hazards: Landslide and avalanche

Unit-8: Nuclear hazards and Radio-active contamination

Unit-9: Plastic hazards

Unit-10: Arsenic contaminations in Deltaic Bengal

Unit-11: Fluoride contaminations in western part of West Bengal

Unit-12: Role of National Disaster Mitigation Agency for management of hazards and disasters

Mode of Internal Evaluation: Class test

SEMESTER-III

Paper Code	Paper	Theory/ Practical	Internal Assessment / Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/DSE/AG/ T-316	Agricultural Geography-I: BASIC CONCEPT IN AGRICULTURAL GEOGRAPHY (Special Paper)	Theory	10	40 (Semester-end Examination)	4	50

Unit-1: Nature, scope and significance of Agricultural Geography

Unit-2: Approaches to the study of Agricultural Geography: regional and systematic

Unit-3: Determinants of agricultural profile: physical and non-physical determinants

Unit-4: Concept of sustainable agriculture

Unit-5: Concept of integrated farming systems

Unit-6: Significance of mixed farming

Unit-7: Concept of organic farming and dry farming

Unit-8: Agricultural region: concept and evolution

Unit-9: Techniques and methods of agricultural regionalization

Unit-10: Agricultural systems of the world after Whittlesey

Unit-11: Models in agriculture: von Thunen's Model

Unit-12: Concept of precision farming

Mode of Internal Evaluation: Research proposal on any aspect of Agricultural Geography

SEMESTER-III						
Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/DSE/EG/ T-316	Environmental Geography-I: BASIC CONCEPT (Special Paper)	Theory	10	40 (Semester-end Examination)	4	50
<p>Unit-1: Environmental studies and Environmental Geography; Nature, scope and content of Environmental Geography</p> <p>Unit-2: Ecosystem approach in Environmental studies</p> <p>Unit-3: Structure and function of Ecosystem</p> <p>Unit-4: Fundamental principles of natural ecology; Principles of human ecology</p> <p>Unit-5: Concept of environmental system, Environmental balance and Environmental degradation</p> <p>Unit-6: Carrying capacity of the environment</p> <p>Unit-7: Bio-geo-chemical cycles: types and significance</p> <p>Unit-8: Energy flow and balance of energy in the biosphere</p> <p>Unit-9: Stationary state economy and equilibrium population</p> <p>Unit-10: Environmentalism in Geography</p> <p>Unit-11: Approaches to the study of environment: Reductionist, Holistic and Organismic</p> <p>Unit-12: Environmental philosophy: Spaceship earth, Deep ecology and Gaia-hypothesis</p> <p>Mode of Internal Evaluation: Research proposal on any aspect of Environmental Geography</p>						

SEMESTER-III						
Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/DSE/UG /T-316	Urban Geography-I: BACKGROUND AND BASIC CONCEPTS (Special Paper)	Theory	10	40 (Semester-end Examination)	4	50
<p>Unit-1: Emergence of Urban Geography as a discipline: changing approaches and methodological foundations</p> <p>Unit-2: Concept of urban</p> <p>Unit-3: Concept of urbanism and urbanization</p> <p>Unit-4: History of urbanization in India: Mughal and Colonial period</p> <p>Unit-5: Patterns and process of urbanization in Independent India</p> <p>Unit-6: Origin and classification of urban Settlements: Mumford, J.M. Houston, G.Taylor, C.D. Haris and Nelson</p> <p>Unit-7: Concepts of urban region: Metropolis, Megalopolis, Ecumenopolis, Conurbation, City region</p> <p>Unit-8: Concepts of Megacity, Sister Towns, Edge Cities</p> <p>Unit-9: Concepts of Planned Towns, New Towns, Satellite Towns, Green/ Garden Cities,</p> <p>Unit-10: Changing urban forms: Urban corridor, rural-urban fringe, urban sprawl, counter-urbanization</p> <p>Unit-11: Urban as a system: City-size distribution (Zipf and Berry) and urban primacy</p> <p>Unit-12: Concept of urban-rural continuum</p>						
Mode of Internal Evaluation: Research proposal on any aspect of Urban Geography						

SEMESTER-III						
Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/DS E/FG/T- 316	Fluvial Geomorphology-I: MECHANISM OF FLUVIAL PROCESSES (Special Paper)	Theory	10	40 (Semester-end Examination)	4	50
<p>Unit-1: Scope, nature and significance of fluvial geomorphology; Scales in Fluvial geomorphology</p> <p>Unit-2: Fluvial system: Components, input output, Variables of fluvial system: internal and external, adjustable and controlling factors</p> <p>Unit-3: Linear, Areal and Altitudinal properties of drainage basin; Law of stream number and stream length, law of basin area;</p> <p>Unit-4: Hydraulics of channel flow: Stream Energy; Types of flow; type of links, number of links</p> <p>Unit-5: River velocity, factors and its distribution in open channels; Flow resistance, Chézy's and Manning's equation</p> <p>Unit-6: Channel initiation and Evolution of channel pattern, importance of headward extension and branching, lateral expansion</p> <p>Unit-7: Classification of natural streams by D. L. Rosgen</p> <p>Unit-8: Erosion: threshold of erosion, processes of erosion, river bank erosion</p> <p>Unit-9: Transportation: processes of entrainment, bedload transport dynamics; Channel competence</p> <p>Unit-10: Deposition: factors controlling deposition, depositions along the channel and across the channel</p> <p>Unit-11: Sediment deposits: nature and characteristics, flood plain and deltaic plain deposits</p> <p>Unit-12: Fluvial processes and forms</p>						
Mode of Internal Evaluation: Research proposal on any aspect of Fluvial Geomorphology						

SEMESTER-III						
Paper Code	Paper	Theory/ Practical	Internal Assessment / Evaluation	Examination/ Report/ Viva-Voce	Credit	Marks
GEO/CC/P- 317	Quantitative Techniques in Geography	Practical	15	60 (Semester-end Examination = 50; Laboratory Note Book + Viva Voce = 5+5=10)	6	75
<p>Unit-1: Sample size, Sampling techniques for geographical analysis</p> <p>Unit-2: Concept of Probability and Normal Probability Distribution</p> <p>Unit-3: Skewness and Kurtosis</p> <p>Unit-4: Hypothesis Testing: Parametric test: t-test, z-test</p> <p>Unit-5: Hypothesis Testing: Non Parametric test: Chi-square test</p> <p>Unit-6: Basic Matrix Algebra</p> <p>Unit-7: Bivariate Regression Analysis: linear and exponential</p> <p>Unit-8: Correlation: Pearson's Product-Moment Correlation; Spearman's Rank Correlation</p> <p>Unit-9: Location of Mean Centre of population and shift over time</p> <p>Unit-10: Location Quotient,</p> <p>Unit-11: Lorentz Curve</p> <p>Unit-12: Shortest path analysis by Shimbel Index</p>						
Mode of Internal Evaluation: Class test						

SEMESTER-III

Paper Code	Paper	Theory/ Practical	Internal Assessment/ Evaluation	Examination/ Report/ Viva- Voce	Credit	Marks
GEO/SEC/P-318	Field Report	Practical	5	20 (Field Report = 15; Viva Voce = 5)	2	25

- Each student will prepare an individual Field Report following broad areas:

Physical, socio-cultural, politico-economic issues

- 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 Problem, background, Objectives, Methodology and Major Findings. The text of the fieldwork should not exceed 5000 words and 15-20 pages of illustrations (A4 Pages).

Mode of Internal Evaluation: Continuous assessment during field survey