LORETO COLLEGE
TIME PLAN 2025

Name of the teacher: Dr Kaustuva Banerjee
Initials: KB

Teaching Objective:
- Understand the concept of map and projections.
- Comprehend the relation of interior of Earth and seismic waves.

UG Semester Topic-wise Time Plan (Major)

Topics	Hours allotted	Topics (as per curriculum)	Teaching method	Learning outcome (output)	Assessment
GEOG-H-CC01/MD-CC01-1/3-Th – Physical Geography	1 class per week	1.Concept and applications of scales and projections. Components and classification of maps. 2. Seismic waves and internal structure of the earth. 3. Classification of weathering and agents of erosion. 4. Fluvial processes and landforms	Lecture Method Group Presentation Peer Learning	1. Discuss the components of a map. 2. Differentiate between the different types of projections. 3.Justify the relationship between interior of the earth and seismic waves. 4.Comprehend the fluvial processes of erosion.	Continuous Internal Assessment through LMS Student Presentations

LORETO COLLEGE
SEMESTER ONE GEOGRAPHY MAJOR
TIME PLAN 2025

Name of the teacher: Dr. Sushma Sahai
Initials: SWS

Teaching Objective:

- To understand the nature, composition and layers of the atmosphere
- Comprehend the soil forming factors
- To enable students to understand the evolution of soil profile
- To prepare students for higher education
- To provide guidance beyond prescribed syllabus

Semester One Geography Honours Topic-wise Time Plan
COURSE: GEOG-H-CC-01-TH – PHYSICAL GEOGRAPHY

Topics	Hours allotted	Topics (as per curriculum)	Teaching method	Learning outcome (output)	Assessment
1.	4	**Unit IV: Climatology** 5. Nature, Composition and layering of the atmosphere	• Technology based learning • Asynchronous teaching • Blended learning	• Comprehend the physical and chemical composition of the atmosphere and its role in sustaining life on Earth. • Identify and describe the characteristics and functions of the different atmospheric layers	• Assignment
2	5	6. Circulation in the atmosphere: Planetary winds, jet streams, index cycle	• Technology based learning • Blended learning	• Examine the mechanisms driving atmospheric circulation, including planetary wind systems and their global patterns. • Analyze the formation and index cycle of	• Open book assessment • Assignment

				jet streams	
3.	4.	**Unit V: Soil Geography** 7. Factors of soil formation	• Technology based learning • Asynchronous teaching • Group-Learning and teaching	• Understand and explain the major factors influencing soil formation • Analyze how the interaction of various soil-forming factors contributes to the development of different soil types	• Peer assessment
4.	4	8. Evolution of an ideal soil profile	• Technology based learning • Blended learning	• Identify and describe the horizons of an ideal soil profile and their physical and chemical characteristics. • Evaluate the processes involved in the development and transformation of soil horizons over time.	• Case study • Assignment

LORETO COLLEGE
GEOGRAPHY TIME PLAN 2025

Name of the teacher: Dr. Ambika Roy Bardhan
Initials: **A.R.**

Teaching Objective:
- To analyse how water availability determines plant adaptations and distribution across the globe.
- To explain the concepts and the various types of hazards and disasters.
- To explain the concept, types of map projections and train the students to draw projections.

UG Semester I Topic-wise Time Plan

Topics	Hours allotted	Topics (as per curriculum)	Teaching method	Learning outcome (output)	Assessment
Plant adaptation and distribution in relation to water availability	45 minutes	CC1-Th- Physical Geography 9. Plant adaptation and distribution in relation to water availability	**Demonstration**	. Classify various types of plants according to water availability. . Identify the various types of plants adaptations and their distributions based on water availability	**Oral Assessment**
Nature and classification of hazards and disasters in Indian context	45 minutes	CC1-Th- Physical Geography 10. Nature and classification of hazards and disasters in Indian context	**Demonstration**	. Distinguish between Hazard and Disaster . Explain the concepts and the relationships among Risk, Vulnerability and Capacity. . Classify Hazards and Disasters in the Indian context.	**Oral Assessment**

Linear Scale	3 hours	CC1- P- Physical Geography 1.Graphical Construction of Scales: Plain, Comparative, Diagonal, and Vernier	**Experiential Learning**	. Define the various types of scales . List the properties of different types of scales . Infer the merits and demerits of various types of scales. . Differentiate among the various types of scales . Calculate and draw linear scale	**Formative Assessment**
Comparative Scale	3 hours	CC1- P- Physical Geography 1.Graphical Construction of Scales: Plain, Comparative, Diagonal, and Vernier	**Experiential Learning**	Calculate and draw comparative scale	**Formative Assessment**
Diagonal Scale	3 hours	CC1- P- Physical Geography 1.Graphical Construction of Scales: Plain, Comparative, Diagonal, and Vernier	**Experiential Learning**	Calculate and draw diagonal scale	**Formative Assessment**
Vernier Scale	3 hours	CC1- P- Physical Geography 1.Graphical Construction of Scales: Plain, Comparative, Diagonal, and Vernier	**Experiential Learning**	Calculate and draw vernier scale	**Formative Assessment**
Drainage basin	45 minutes	CC1- P- Physical Geography 2.Delineation of drainage basins on Survey of India 1:50K topographical Maps. Determining stream ordering (Strahler), and bifurcation ratio in a drainage basin (c.5'*5')	**Experiential Learning**	. Explain the concept of drainage basin . delineate a drainage basin on a topographical map	**Formative Assessment**

Stream ordering (Strahler)	45 minutes	CC1- P- Physical Geography 2.Delineation of drainage basins on Survey of India 1:50K topographical Maps. Determining stream ordering (Strahler), and bifurcation ratio in a drainage basin (c.5'*5')	**Experiential Learning**	. Identify the various tributaries and distributaries in a drainage basin. . Classify and order various streams and rivers on the basis of their branching in a drainage basin.	**Formative Assessment**
Bifurcation Ratio	45 minutes	CC1- P- Physical Geography 2.Delineation of drainage basins on Survey of India 1:50K topographical Maps. Determining stream ordering (Strahler), and bifurcation ratio in a drainage basin (c.5'*5')	**Experiential Learning**	. Calculate bifurcation ratio.	**Formative Assessment**
Drainage patterns	1 hour 30 minutes	CC1- P- Physical Geography 3. Identification of drainage and channel patterns from Survey of India 1:50k topographical maps.	**Experiential Learning**	. Identify different types of drainage patterns . Draw different types of drainage patterns	**Formative Assessment**
Channel patterns	1 hour 30 minutes	CC1- P- Physical Geography 3. Identification of drainage and channel patterns from Survey of India 1:50k topographical maps.	**Experiential Learning**	. Identify different types of channel patterns . Draw different types of channel patterns	**Formative Assessment**
Wind Rose Diagram	1 hour 30 minutes	CC1- P- Physical Geography 4.Construction and interpretation of wind rose diagram	**Experiential Learning**	.Define a wind rose diagram . Infer the importance	**Formative Assessment**

				of wind rose diagram. Construct wind rose diagram . Interpret a wind rose diagram	

LORETO COLLEGE
TIME PLAN 2025-2026

Name of the teacher: DEBASREE SINHA
Initials: D.S

Teaching Objective:
- Provide an understanding of fundamental methods of data collection during fieldwork.
- Impart knowledge regarding the compilation, record, organization, and display of that data.
- Develop basic skills of methods used in physical geography.

1st Semester Honours Course Topic-wise Time Plan

Topics	Hours allotted	Topics (as per curriculum)	Teaching method	Learning outcome (output)	Assessment
GEOG-H-SEC01-Th-(Theory) Methods in Geography	30	4. Data compilation into master table. 5. Computer-assisted field data entry; tabulation of data into frequency. distribution tables 6. Statistical analysis of data: measures of central tendency and dispersion 7. Use of minor survey instruments: Brunton compass, distometer, smartphone levelling applications 8. Textural analysis of grains using sieves 9. Mapping and extraction of flooded areas from satellite	1. Lecture 2. Discussion 3. Demonstration 4. Technology-based learning 5. Problem-solving	Students will be able to: 1. Organize, summarize, display data collected during field. 2. Perform basic statistical analysis on data. 3. Discern the utility of minor survey instruments. 4. Comprehend the significance of grain size in soil samples. 5. Appreciate the use of topographical maps in delineating flood affected areas, identifying river bank erosion &	1. Written test 2. Self-assessment

		images and digital elevation models		coastline changes.	
		10. Mapping areal and linear extents of riverbank and coastline shift from Survey of India 1:50k maps and/or satellite images			

LORETO COLLEGE
TIME PLAN 2025

Name of the teacher: Dr. Suman Chatterjee
Initials: SCH

Teaching Objective:

- Understand and apply **Harris's and Nelson's urban functional classification models** to determine dominant and distinctive urban functions.
- Develop the ability to conduct **Dominant and Distinctive Function (DDF) analysis** using occupational data at regional levels, particularly for **West Bengal**.
- Explain and interpret **Ashok Mitra's Ternary Diagram** to classify towns functionally based on occupational patterns.
- Gain knowledge of **accessibility concepts**, including access, mobility, and barriers, and their relevance in urban and regional planning.
- Learn techniques for **preparing accessibility maps** in **GIS environments** using tools such as **detour index**, **graph theory indices** (β, α, γ), and **circuit theory models** (shortest path, OD matrix, corridor analysis).
- Understand key **transportation network concepts** like **nodes, edges, transit, connectivity, and flow** in spatial contexts.
- Acquire skills to design and construct **transportation flowcharts** using real-world data and **GIS-based tools**.
- Enhance **analytical and visualization skills** through practical exercises involving functional classification, mapping, and flowchart creation.
- Encourage **problem-solving, data interpretation**, and **presentation abilities** through group work and experimental tasks.

UG Semester I Topic-wise Time Plan
GEOG-H-SEC01/MD-SEC01-1/2/3-Th – Methods in Geography (Unit III: Methods in Human Geography)

Topics	Hours allotted	Topics (as per curriculum)	Teaching method	Learning outcome (output)	Assessment
Unit III: Methods in Human Geography					
Dominant and Distinctive Functions	90 mins	What are Dominant and Distinctive Functions, Concept of urban function Harris's Functional Classification of Cities (1943); Nelson's Nine Activity Groups; Understanding Dominant and Distinctive Functions	Lecture, Technology based learning	Understand urban functional classification and identify dominant/distinctive urban functions	Quiz, Class Test
	90 mins	Concept and Application of Dominant and	Lecture, Technology based	Analyze occupational structure of cities	Experimental Problem

		Distinctive Function (DDF) Analysis; Occupation Structure Analysis; Exercises using data from West Bengal	learning, Case Study, Learning through problem-solving	using DDF methodology	Solving, Viva
Ternary Diagram & Ashok Mitra's Classification	90 mins	*Ashok Mitra's Functional Classification of Towns; Introduction to Ternary Diagrams; Purpose and Components*	Lecture, Technology based learning, Case Study	Comprehend functional classification of Indian towns and purpose of ternary diagram	Quiz
	90 mins	*Construction and Interpretation of Ternary Diagram (Functional Classification); Case example using real/secondary data*	Learning through problem-solving, Group-Learning and Teaching	Develop skills to prepare and interpret ternary diagrams for urban classification	Presentation, Case Study
Accessibility Mapping & Network Analysis (GIS-based)	90 mins	*Concept of Accessibility, Access, Barriers, Mobility; GIS-based Mapping (Desktop & Web); Required Data and Methods*	Lecture, Technology based learning	Explain and apply methods of accessibility mapping	Class Test, Viva
	90 mins	*Graph Theory Measures – Detour Index, β, α, γ indices; Circuit Theory (Dijkstra's Shortest Path); OD Matrix, Service Area, Hot Link, Corridor Mapping*	Technology based learning, Learning through problem-solving	Apply graph and circuit theory-based indices in accessibility mapping using GIS	Experimental Problem Solving
Flowchart Construction using Transportation Data	90 mins	*Transport Networks: Nodes, Edges, Flow, Routing, Transitivity, Topology; Types of Networks; Understanding Flowcharts*	Lecture, Group-Learning and Teaching	Identify transport network elements and understand flowchart logic	Quiz
	90 mins	*GIS-Based Flowchart Construction; Hands-on Exercise with Transportation Data*	Learning through problem-solving, Technology based learning	Construct and interpret transportation flowcharts using GIS tools	Experimental Problem Solving, Presentation

Recap and Revision Session	45 mins	*Revision of DDF, Ternary Diagram, Accessibility, Network & Flowchart Concepts; Discussion on Real-life Applications*	Group-Learning and Teaching, Problem Solving	Reinforce and integrate knowledge across all modules	Class Test, Q&A