LORETO COLLEGE
TIME PLAN 2025-2026

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

Teaching Objective:

- Create a fundamental idea about the significance of surface and groundwater hydrology.
- Develop an awareness about hazard management and the importance of community participation in hazard mitigation strategies.

5th Semester Honours Course Topic-wise Time Plan

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
1. GEOG-H-CC09-5-Th – (Theory) Hydrology and Oceanography	15	1. Systems approach in hydrology. Global hydrological cycle: Its physical and biological role 2. Run off: controlling factors. Infiltration and evapotranspiration. Run off cycle 3. Drainage basin as a hydrological unit. Principles of water harvesting and watershed management 4. Groundwater: Occurrence and storage. Factors controlling groundwater recharge, discharge, and movement	1. Individual learning / self-study 2. Game-based learning: Quiz 3. Technology-based learning	Students will be able to: 1. Perceive the importance of the global hydrological cycle and identify its processes. 2. Enumerate the factors affecting the hydrological processes. 3. Assess the significance of drainage basin in hydrology. 4. Discern the role by groundwater.	1. Quiz with MCQ 2. Written assignment
2. GEOG-H-CC09-5-P – (Practical) Hydrology and Oceanography	12	3. Construction and interpretation of ombrothermic graph and hyetograph 4. Construction of Thiessen polygon	1. Demonstration of methods 2. Learning through problem-	Students will be able to: 1. Comprehend rainfall-temperature relationships.	1. Written assignment

		from precipitation data	solving	2. Estimate average rainfall in an area with multiple rain gauge data.	
3. GEOG-H-CC11-5-P – (Practical) Hazard Management	5	1. Group Project Report on case study	1. Project based learning	Students will be able to: 1. Suggest solutions and strategies for hazard mitigation. 2. Develop a better sense of awareness about vulnerability to hazards.	1. Case study 2. Project

LORETO COLLEGE
SEMESTER FIVE GEOGRAPHY CORE COURSE MAJOR
TIME PLAN 2025

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

Teaching Objective:

- Analyse the physical and chemical properties of ocean water
- Provide an in depth knowledge of formation of waves and tides
- To enable students to comprehend various Water masses
- Assess the oceans as a storehouse of resources
- Assess and evaluate the factors of sea level change
- To prepare students for higher education
- To provide guidance beyond prescribed syllabus

5th Semester Geography Major Topic-wise Time Plan
COURSE: GEOG-H-CC-09-TH – UNIT-II: OCEANOGRAPHY (THEORY)

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
1	4	5. Physical and chemical properties of ocean water	• Technology based learning • Blended learning	• Assess the physical and chemical properties of ocean water	• Tutorials • Home assignments
2	4	6.Ocean temperature and salinity: Distribution and determinants	• Technology based learning • Blended learning • Discussion/ Interactive method	• Gain knowledge of the characteristics of temperature and salinity of oceans	• Quiz
3	3	7. Water mass, T–S diagram	• Technology based learning • Blended learning	• Differentiate between different Water masses • Comprehend the T-S diagram	• Tutorials
4	6	8. Ocean circulation, wave and tide	• Technology based learning • Blended learning • Discussion/ Interactive method	• Thorough understanding of the factors generating waves • Differentiate between different types of tides	• Crossword • Tutorials
5	4	9. Sea level change: Types, causes and implications	• Technology based learning • Asynchronous teaching	• Analyse the reasons of sea level change	• Book review

			• Group Learning and teaching		
6	4	10.Marine resources: Classification and sustainable utilisation. Issues related to pollution of the ocean	• Technology based learning • Blended learning • Peer learning	• Assess the resource potential of oceans	• Tutorial

LORETO COLLEGE
SEMESTER FIVE GEOGRAPHY CORE COURSE MAJOR
TIME PLAN 2025

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

Teaching Objective:

- To assist students to construct and interpret rating curves
- To help students acquire the skill to derive and apply ϕ-index and W-index for effective estimation of rainfall–runoff relationships.

5th Semester Geography Major Topic-wise Time Plan
COURSE: GEOG-H-CC09- P- HYDROLOGY AND OCEANOGRAPHY LAB

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
1	3	1. Construction and interpretation of rating curves	• Technology based learning • Blended learning	• Develop the ability to construct rating curves from observed hydrological data. • Interpret rating curves to establish stage–discharge relationships for practical applications in hydrology.	• Tutorials • Home assignments
2	11	2. Construction and interpretation of hydrographs and unit hydrographs. Derivation of phi index and W index	• Technology based learning • Blended learning • Discussion/ Interactive method	• Gain proficiency in preparing and analysing hydrographs and unit hydrographs to understand watershed response to rainfall events. • Acquire the skill to derive and apply ϕ-index and W-index for effective estimation of rainfall–runoff relationships.	• Tutorials

LORETO COLLEGE
SEMESTER FI

VE GEOGRAPHY CORE COURSE MAJOR
TIME PLAN 2025

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

Teaching Objective:

- To impart comprehensive knowledge of the various hazards
- Develop the skill to comprehend the causes of the hazards
- To enable students to understand the complex hazards management issues
- To prepare students for higher education
- To provide guidance beyond prescribed syllabus

5th Semester Geography Major Topic-wise Time Plan
COURSE: GEOG-H-CC11-5-TH – HAZARD MANAGEMENT
Unit II: Hazard – specific Study with focus on West Bengal and India

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
1.	4	4.Earthquake: Factors, vulnerability, consequences and management	• Technology based learning • Blended learning • Discussion/ Interactive method	• Comprehend the concept of vulnerability • Understand the causative factors, consequences and management of earthquakes	• Case study • Tutorial
2	4	5.Landslide: Factors, vulnerability, consequences and management	• Technology based learning • Blended learning	• Comprehend the mechanism of landslide • Understand the dynamics of managing landslides	• Case study • Tutorial
3.	4	6.Land subsidence: Factors, vulnerability, consequences and management	• Technology based learning • Blended learning	• Understand the dynamics of land subsidence • Plan management measures for controlling subsidence	• Home assignments • Viva

4.	4	7. Tropical Cyclone: Factors, vulnerability, consequences and management	• Technology based learning • Group Learning and teaching • Peer teaching	• Equipped to Identify causes of tropical cyclone • Knowledge of the consequences and management measures of cyclone	• Case study
6.	4	8. Riverbank and coastal erosion: Factors, vulnerability, consequences and management	• Technology based learning • Asynchronous teaching • Group Learning and teaching	• Comprehend the mechanism of landslide • Understand the dynamics of managing landslides	• Paper presentation

5th Semester Geography Major Topic-wise Time Plan
COURSE: GEOG-H - CC11-5-Tu – HAZARD MANAGEMENT REPORT

Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome (output)***	***Assessment***
1.	8	Report on selected hazard – Introduction, background of the problem, causes, mitigation measures and Preparedness plan	• Technology based learning • Blended learning • Group Learning and teaching • Asynchronous teaching	• Understand the causative factors, consequences and management of the chosen hazard • Imbibed the skill to design a Preparedness Plan for the selected hazard	• Project report (Group work)

LORETO COLLEGE
GEOGRAPHY TIME PLAN 2025

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

Teaching Objective:

- Discuss the approaches to hazard in terms of risk perception and vulnerability assessment.
- Explain the various ways to respond to hazards with respect to preparation, trauma and aftermath.
- Elaborate on the concepts of resilience and capacity building.
- Discuss the various factors, vulnerability, consequences and management of fire and biohazard.
- Prepare a comprehensive report based on case study to be conducted by the students on any one hazard occurring in India.
- Explain the concept of culture, cultural region, cultural hearth, cultural realm, cultural diffusion, diversity and integration with examples.
- Train the students to calculate nearest neighbour analysis from topographical map and interpret it.
- Equip the students to draw pie graphs for mapping state-wise distribution of major Indian languages.

Semester 5 (Major)

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
Paper: GEOG-H-CC11-5-Th – Hazard Management					
Approaches to hazard	2 hours 15 minutes	1.Approaches to hazard: Risk perception and vulnerability assessment. Hazard paradigms and continuum	**. Group Learning and Teaching**	. Define the concept of risk perception . Discuss the various techniques of assessing vulnerability. . Discuss hazard paradigms since ancient times . Explain the features of hazard continuum	**. Quiz with MCQ** **. Home Assignment**
Response to hazards	2 hours 15 minutes	2.Response to hazards: preparedness, trauma, and aftermath. Resilience, capacity	**Group Learning and**	. Discuss on the ways to respond to	**. Quiz with MCQ**

		building	**Teaching**	hazard in terms of preparedness, trauma and aftermath. . Explain the concept and importance of resilience and capacity building	**. Home Assignment**
Fire hazard	2 hours 15 minutes	9. Fire: factors, Vulnerability, consequences and management	**Seminar Presentation**	. Explain the factors, vulnerability and management of fire hazard	**Seminar Presentation**
Biohazard	2 hours 15 minutes	10. Biohazard: Classification, vulnerability, consequences and management.	**Group Learning and Teaching**	. Explain the factors, vulnerability and management of biohazard	**Assignment** **Seminar Presentation**
Paper: GEOG-H-CC11-5-Tu – Hazard Management Report					
Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome (output)***	***Assessment***
Comprehensive Report on any one Hazard	6 hours	**Report to be prepared and submitted based on any one case study among the following hazards from India, incorporating a preparedness plan:** **1. Earthquake** **2. Landslide** **3. Land Subsidence** **4. Thunderstorm** **5. Tropical Cyclone** **6. Flood** **7. Riverbank/Coastal Erosion** **8. Fire** **9. Industrial Accident** **10. Road/Railway accident** **11. Structural Collapse** **12. Environmental Pollution** **13. Biohazard**	**Project Based Learning**	Prepare a report including: **Chapter 1:** . Introduction . Statement of the problem . Background of the study . Objectives of the study . Location of the study area . Limitations of the study **Chapter 2.** Methodology: . Collection of Data . Pre-field study . On-field study . Post-field study	***Project and Assignment***

				Chapter 3: Background of the Study Area **Chapter 4:** Causes and Impact of Hazard **Chapter 5:** Perception Survey of Respondents **Chapter 6:** Management and Mitigation incorporating a preparedness Plan **Chapter 7:** Conclusion	
Paper: GEOG-H-CC10/MD-CC07-5/6-Th – Cultural and Settlement Geography					
Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome (output)***	***Assessment***
Cultural Geography	1 hour 30 minutes	1.Definition, Scope and Content of Cultural Geography	**Group Learning and Teaching**	. Define cultural geography . State the scope and content of cultural geography	**Quiz with MCQ**
Culture	45 minutes	2.Components and Structure of Culture	**Group Learning and Teaching**	. Identify the different components of culture . Describe the structure of Culture	**Quiz with MCQ**
Cultural Hearth	1 hour 30 minutes	3.Cultural Hearth and Realms: Distribution and Characteristics	**Group Learning and Teaching**	. Differentiate between cultural hearth and realm . List and describe the different cultural hearth and	**Quiz with MCQ**

				realm of the world. . State the characteristics of various cultural hearths and realms of the world	
Cultural Diffusion	3 hours	4.Cultural Diffusion: Types of Cultural diffusion, innovation diffusion, Hagerstrand's model	**Group Learning and Teaching**	. Explain the concept of cultural diffusion with real life examples . State the different types of cultural diffusion with real life examples . Explain Hagerstrand's model of innovation diffusion	**Assignments**
Diffusion of major world religions and languages	1 hour 30 minutes	5. Diffusion of major world religions and languages	**Seminar Presentation**	. Explain how diffusion of major languages and religions have taken place	**Seminar Presentation**
Cultural segregation, diversity and integration	2 hours 15 minutes	6. Cultural segregation, diversity and integration	**Seminar Presentations**	. Explain the concept of cultural segregation with examples . Explain how cultural diversity exists in India . Discuss the concept of cultural integration and how it is important.	**Seminar Presentations**
Paper: GEOG-H-CC10/MD-CC07-5/6-P – Cultural and Settlement Geography Lab					
Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome***	***Assessment***

				(output)	
Mapping state-wise distribution of major Indian languages using pie graphs	2 hour 15 minutes	1.Mapping state-wise distribution of major Indian languages of any census year using pie graphs	**. Learning through Problem Solving**	. Prepare a map showing distribution of major Indian languages of any census year using pie graphs . Interpret the map	**Assignments**
Nearest Neighbour Analysis	3 hours	4. Nearest neighbour analysis from survey of India 1:50k topographical maps of plain region (c. 5'X 5')	**.Experiential Learning** **. Learning by Problem Solving**	. Calculate and interpret Nearest neighbour analysis from survey of India 1:50k topographical maps of plain region	**Assignments**

LORETO COLLEGE

SEMESTER FIVE
GEOGRAPHY MAJOR
(CCF)

TIME PLAN 2025

Name of the teacher: Mrs S. Sethwala

Initials: S.S

Teaching Objectives

- To provide an overview of different maps , their uses
- To help the student relate the theoretical knowledge to field work
- To build core concepts

Semester V Major Topic wise Time Plan

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
GEOG-CC-12-TH –THEMATIC MAPPING AND SURVEYING	**10**	**1. Logarithms , anti logs, log scales** **2. Geological maps – preparation , interpretation** **3. Land use and land cover** **4. Socio economic maps** **5. NATMO, GSI, NBSSLUP, NHO,**	**lecture method** **project method** **problem solving method** **flipped classroom** **peer teaching**	• **Enables students to understand geological structures and solve problems related to resource management** • **Helps students to understand spatial patterns in social and economic characteristics**	• **class tests** • **Objective** • **worksheets** • **home assignments** • **exams**

GEOG-CC-12- **PR –THEMATIC MAPPING AND SURVEYING**	**10**	**1. Profile survey using abney level** **2. Height determination by Theodolite**	**Lecture method** **Demonstration method** **Problem solving method**	• **Able to establish relationship between slope , gradient and landuse**	• **Class tests** • **Objective** • **worksheets** • **home assignments** • **exams**
GEOG-CC-11- **TU –HAZARD MANAGEMENT REPORT**	**4**	**1. Project report on any case study on any one hazard**	**Project method-case study** **Experiential learning**	• **Gives a better understanding of potential hazard and the risk and outlines measures of mitigation**	• **VIVA VOCE**

LORETO COLLEGE
TIME PLAN 2025

Name of the teacher: Dr Kaustuva Banerjee
Initials: KB

Teaching Objective:

- Understand the concept of Surveying and Levelling.
- Learn to take readings with the help of the instruments.

UG Semester Topic-wise Time Plan (Major)

Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome (output)***	***Assessment***
GEOG-H-CC12-5-Th – Thematic Mapping and Surveying	2 class per week	1.Basic concepts of surveying and survey equipment: Prismatic compass. 2.Basic concepts of surveying and survey equipment: Dumpy level. 3. Basic concepts of surveying and survey equipment: Theodolite. 4. Basic concepts of surveying and survey equipment: Abney level. 5.Basic concepts of surveying and survey equipment: Total Station & Echosounder	Demonstration Method Group Presentation Peer Learning Project based learning	1. Discuss the parts of the survey instruments. 2. Differentiate between the uses of various instruments. 3.Justify the need of total station.	Continuous Internal Assessment Project Presentations

LORETO COLLEGE
B.A./B.Sc. (Major & Honours) Geography TIME PLAN 2025
GEOG-H-CC10/MD-CC07-5-Th – Cultural and Settlement Geography

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

Teaching Objective:

- To develop an understanding of settlement geography concepts by identifying and interpreting the site, situation, and perceptions of settlements in diverse geographical contexts.
- To classify and compare settlement types through the study of rural–urban dichotomy, demographic, economic, and functional traits, and their relation to geographical conditions and human activities.
- To examine rural settlements by defining their features, tracing their historical evolution, analyzing morphology (compact, dispersed, semi-compact), and categorizing house types with regional and cultural variations.
- To explore social dimensions of rural settlements by interpreting patterns of segregation (caste, occupation, economic, religious) and evaluating their impact on rural society and development.
- To investigate urban settlements by defining statutory and census towns, explaining their evolution and typology (metropolis, megalopolis, conurbation, agglomeration), and interpreting growth trends using census and spatial data.
- To analyze urban morphology and models by explaining the structure and role of the Central Business District, comparing classical models (Burgess, Hoyt, Harris & Ullman), evaluating their applicability, and applying case-based diagrammatic interpretations.

UG Semester V Topic-wise Time Plan

Topics	*Hours allotted*	*Topics (as per curriculum)*	*Teaching method*	*Learning outcome (output)*	*Assessment*
Unit II: Settlement Geography					
Rural settlements: Evolution and morphology	4.5 hours	- Introduction to settlement Geography - Characteristics, Perceptions, Site and Situation of Settlements - Types of Settlement & Rural-Urban Dichotomy - Defining and Characterizing Rural Settlement - Evolution of Rural Settlement - Morphology and Types of Rural Settlement	Lecture, Technology-Based Learning, Self-Study	- Identify and interpret site and situation of settlements with examples. - Assess perceptions of settlements in different geographical contexts. - Classify settlement types and their characteristics. - Compare rural and urban settlements by demographic, economic, and	MCQ, Viva, Presentation

				functional traits. - Relate settlement forms to geographical conditions and human activities. - Define rural settlements and their distinguishing features. - Trace the historical evolution of rural settlements. - Analyze morphology and spatial types (compact, dispersed, semi-compact).	
Rural house types with reference to India, social segregation in rural areas	4.5 hours	- Rural House Types in India (Kutcha Houses, Semi-Pucca Houses, Pucca Houses, Specialized House Types). Regional and Spatial Distribution and Geographical Factors influencing the house types - Social Segregation in Rural Areas - Caste-based Segregation - Occupation-based Segregation - Economic Segregation - Religious Segregation	Lecture, Technology-Based Learning, Self-Study Problem-Solving	- Categorize house types (Kutcha, Semi-Pucca, Pucca, Specialized) and their regional distribution. - Examine geographical and cultural factors shaping rural housing. - Interpret patterns of social segregation in rural areas. - Assess the impact of segregation on rural society and development.	Quiz, Presentation, Viva.
Urban settlements: Evolution; concepts of metropolis, megalopolis, conurbation, and agglomeration	2.5 hours	- Defining Urban Settlement - Statutory and Census Towns - Urban Settlement Evolution and Types - Concepts of metropolis, megalopolis, conurbation, and agglomeration	Lecture, Technology-Based Learning, Self-Study Problem-Solving	- Define urban settlements and distinguish between statutory towns and census towns. - Explain the evolution and typology of urban settlements (metropolis, megalopolis, conurbation, agglomeration). - Use census and spatial data to interpret urban growth trends.	MCQ Quiz, Presentation, Viva.

				- Apply theoretical knowledge to real-world urban case studies.	
Urban morphology: Models of Burgess, Hoyt, and Harris & Ullman	6.5 hours	- Morphology of Urban Settlement - The Central business district - Classical urban models: - Concentric Zone Model (Burgess) - Sector Model (Hoyt) - Multiple Nuclei Model (Harris and Ullman)	Lecture, Technology-Based Learning, Self-Study	- Explain the structure and functions of the Central Business District (CBD). - Describe and compare urban models (Burgess, Hoyt, Harris & Ullman). - Evaluate the relevance and limitations of classical urban models in Indian and global contexts. - Develop annotated diagrams and case-based applications of settlement morphology.	Class Test, Presentation, Viva.
Revision	2 hours	All		All	

LORETO COLLEGE
B.A./B.Sc. (Major & Honours) Geography TIME PLAN 2025
GEOG-H-CC10/MD-CC07-5/6-P – Cultural and Settlement Geography Lab

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

Teaching Objective:

- To develop an understanding of rural housing types, their material composition, and regional variation using census data across different time periods.
- To train students in cartographic techniques, particularly cartogram preparation, for representing spatial and temporal changes in housing patterns.
- To introduce the concept of accessibility and detour index, and provide hands-on skills in calculating and mapping accessibility using topographical maps.
- To enable students to interpret spatial patterns of rural connectivity and assess their implications for settlement development and regional planning.

UG Semester V Topic-wise Time Plan

Topics	***Hours allotted***	***Topics (as per curriculum)***	***Teaching method***	***Learning outcome (output)***	***Assessment***
Cartograms representing roof materials used in rural houses of any state of India in the census years 1991, 2001, and 2011	4 hours	• Rural house types in India (Kutcha, Semi-Pucca, Pucca, Specialized) • Census data on housing and roof materials (1991, 2001, 2011) • Spatial and temporal variation in rural housing • Cartographic representation techniques (cartograms)	Lecture, Map-based Practical, Technology-supported learning (GIS/Cartograms)	Ability to prepare cartograms, analyze temporal change in rural housing materials	Practical submission and evaluation
Accessibility mapping using detour index from Survey of India 1:50k topographical maps	8 hours	• Concept of accessibility and connectivity in settlement geography • Detour index: definition, calculation, and applications • Use of Survey of India 1:50k topographical maps for accessibility studies • Rural connectivity, service centers, and transport network analysis • Application of accessibility mapping in regional planning	Practical, Hands-on Mapping Exercise, Self-study	Ability to compute detour index, interpret accessibility patterns, and assess rural connectivity	Practical assignment and viva
Revision	3 hours	All		All	