

COMPETENCY BASED LEARNING DESIGN/COMPETENCY BASED POST-TEACHING REFLECTION

YEAR – 2026.

SEMESTER – I (Minor)

DEPARTMENT -GEOGRAPHY

Faculty- Dr Ambika Roy Bardhan

Topic/Unit	Competency-Based Expected Learning Outcome (Knowledge, Skill Value, Attitude)	Assessment	Brief Description of Strategies, Aids (if any), Evaluation process	Hours Allotted	Evaluated Outcome/ Post-Teaching Reflections
Paper: GEOG-H-CC-1 -Th – Physical Geography					
Plant Adaptation and Distribution in Relation to Water Availability	Students will be able to: Knowledge: Explain different types of plant adaptations based on water availability (hydrophytes, mesophytes, xerophytes, halophytes) and their geographical distribution. Skill: Identify and compare plant adaptations and analyse the relationship between water availability and vegetation distribution. Value: Develop appreciation for plant diversity and ecosystem functioning. Attitude: Cultivate environmental awareness and sensitivity towards biodiversity conservation.	Short Answer Questions	● Group Learning and Teaching ● Technology based learning	2 hour	Outcomes attained: Challenges Identified: Improvements required: Alignment with POs, PSOs, COs:
Nature and Classification of Hazards and Disasters in the Indian Context	Students will be able to: Knowledge: Describe the concepts, nature, and classification of hazards and disasters with special reference to India. Skill: Classify different natural and anthropogenic hazards, analyse their causes and impacts, and interpret hazard maps. Value: Develop awareness of disaster preparedness, risk reduction, and sustainable development. Attitude: Foster social responsibility and resilience towards disaster management and community safety.	Short Answer Questions	● Group Learning and Teaching ● Technology based learning	3 hours	
Paper: GEOG-H-CC-1 -Pr – Physical Geography					
Graphical Construction of Scales: Plain,	Students will be able to: Knowledge • Explain the concept, principles, and	Practical Exercise, Practical Notebook Evaluation	● Group Learning and Teaching	6 hours	

Comparative, Diagonal, and Vernier Scales	significance of graphical scales in cartography. • Describe the characteristics and applications of plain, comparative, diagonal, and vernier scales. • Distinguish between different types of graphical scales and identify their appropriate applications. Skills • Construct plain, comparative, diagonal, and vernier scales accurately using appropriate cartographic techniques and instruments. • Calculate representative fraction (R.F.) and determine the dimensions required for graphical scale construction. • Apply graphical scales to measure and represent distances accurately on maps. • Interpret and compare distances using different types of scales. Values • Appreciate the importance of precision and accuracy in cartographic representation. • Recognise the role of graphical scales in spatial analysis and map interpretation. Attitude • Develop accuracy, patience, and systematic working habits while constructing graphical scales. • Demonstrate confidence in applying cartographic techniques for practical geographical problem-solving.		• Learning by Problem solving • Experiential Learning		
--	--	--	--	--	--

COMPETENCY BASED LEARNING DESIGN/COMPETENCY BASED POST-TEACHING REFLECTION

FACULTY: DR. SUSHMA SAHAI YEAR - 2026 SEMESTER - ONE MINOR DEPARTMENT - GEOGRAPHY

PAPER: CC01- TH – PHYSICAL GEOGRAPHY

Topic/Unit	Competency-Based Expected Learning Outcome (Knowledge, Skill Value, Attitude)	Assessment	Brief Description of Strategies, Aids (if any), Evaluation process	Hours Allotted
Unit IV: Climatology – Nature, Composition and Layering of the Atmosphere	Knowledge: Understand the physical and chemical composition of the atmosphere and the characteristics of different atmospheric layers. Skill: Identify atmospheric layers and explain their functions. Value: Appreciate the importance of the atmosphere in sustaining life. Attitude: Develop scientific curiosity and environmental responsibility.	Tutorials based on previous years university examinations	Teaching Strategies: Technology-based learning, Asynchronous teaching, Blended learning. Aids: PPTs, videos, diagrams, LMS. Evaluation: Assignment.	4
Circulation in the Atmosphere: Planetary Winds, Jet Streams and Index Cycle	Knowledge: Understand atmospheric circulation and planetary winds. Skill: Analyse global circulation and jet streams. Value: Appreciate their influence on weather and climate. Attitude: Develop analytical thinking.	Formative and summative assessment through diagram-based questions and short-answer tests	Teaching Strategies: Technology-based learning, Blended learning. Aids: Maps, animations, simulations and LMS Evaluation: Open-book assessment	5
Unit V: Soil Geography – Factors of Soil Formation	Knowledge: Understand factors of soil formation. Skill: Analyse interactions among soil-forming factors. Value: Appreciate soil conservation.	Peer assessment, Group discussion, Case study, Reflective writing	Teaching Strategies: Technology-based learning, Asynchronous teaching, Group learning. Aids: Soil diagrams, videos and LMS Evaluation: Peer assessment.	4

	Attitude: Develop environmental responsibility.			
Evolution of an Ideal Soil Profile	Knowledge: Understand soil horizons. Skill: Identify and evaluate soil profile development. Value: Appreciate sustainable soil management. Attitude: Foster scientific observation.	Diagram interpretation, Rubric-based assessment, Practical worksheet	Teaching Strategies: Technology-based learning, Blended learning. Aids: Soil profile diagrams, case studies and LMS Evaluation: Case study; Assignment.	4

COMPETENCY BASED LEARNING DESIGN/COMPETENCY BASED POST-TEACHING REFLECTION

YEAR - 2026 SEMESTER – I (MAJOR) - DEPARTMENT -GEOGRAPHY

Mrs SABIHA SETHWALA

GEOG- H-CC-01 (TH) PHYSICAL GEOGRAPHY

Topic/Unit	Competency-Based Expected Learning Outcome (Knowledge, Skill Value, Attitude)	Assessment	Brief Description of Strategies, Aids (if any), Evaluation process	Hours Allotted	Evaluated Outcome/ Post-Teaching Reflections
CC 01 TH PHYSICAL GEOGRAPHY 2. Concept and application of scale and projections 3. Seismic waves and internal structure of the earth	Knowledge able to distinguish between different types of scales and their application Skill equips students to measure real world distances accurately, interpret spatial relationships and select the best map for any geographical task Value helps students to understand map ground ratio and provide for accurate distance calculation Attitude develop a scientific temper to link, ground and map information by using effective GIS analysis for specific projects Knowledge understanding of different seismic waves and different layers of the earth Skills builds a blend of analytical and computational skill. It equips students with the ability to evaluate structural risks Value helps to map out layers and analyse wave velocity and locate resources Attitude develop a scientific temper to link, travel of seismic waves to early warning systems for seismic events	- Class tests - MCQ / Objective - Worksheets - Home assignments - Tutorials - Class tests - MCQ / Objective - Worksheets - Home assignments - Tutorials	- Lecture method - Demonstration method - Use of PPTs - Use of ICT - Group PPT presentations	10	
			- Lecture method - Discussion method - Use of PPTs - Use of ICT - Group PPT presentations	8	
			- Lecture method - Discussion method - Use of PPTs		
CC 01 PR					

PHYSICAL GEOGRAPHY	• Knowledge understanding of different types of drainage patterns. • Skills learning to identify drainage patterns on different structures. • Value to apply the knowledge of different drainage patterns for water management. • Attitude to develop a scientific temper in the use of GIS for drainage pattern analysis	• Class tests • Worksheets • Tutorials	• Use of ICT	2	
-------------------------------	--	--	--	----------	--

COMPETENCY BASED LEARNING DESIGN/COMPETENCY BASED POST-TEACHING REFLECTION

YEAR - 2026 SEMESTER - I DEPARTMENT - Geography

GEOM-DSCC-1/MGEO-CC-1-Th– Physical Geography 75 Marks / 3Credits

Dr. Suman Chatterjee (SCH)

Topic/Unit	Competency-Based Expected Learning Outcome (Knowledge, Skill, Value & Attitude)	Assessment	Brief Description of Strategies, Aids (if any), Evaluation Process	Number of Classes	Evaluated Outcome / Post-Teaching Reflections
Unit III: Geomorphology Classification of Weathering and Agents of Erosion	Knowledge: Explain the concept, classification and mechanisms of weathering and distinguish it from erosion. Describe the major exogenic agents of erosion and their geomorphic significance. Skill: Identify weathering processes from photographs, diagrams and field examples; classify landforms based on dominant geomorphic processes. Value & Attitude: Develop scientific observation skills and appreciate the role of geomorphic processes in landscape evolution and environmental management.	Concept quiz, diagram interpretation, case-study analysis and short assignments on weathering types, denudation, weathering vs. erosion, and the role of running water, wind and glaciers as agents of erosion.	Interactive lecture using diagrams, photographs, rock specimens and animations; demonstration of weathering processes through videos and local examples; collaborative learning using concept maps and group discussion; evaluation through quizzes, worksheets, rubric-based presentations and continuous classroom interaction.	3	
Unit III: Geomorphology Fluvial Processes and Landforms	Knowledge: Explain river erosion, transportation and deposition processes and describe major erosional and depositional fluvial landforms. Skill: Interpret river profiles, geomorphic diagrams and topographic maps; analyse river processes using graphical and spatial	Diagram-based exercises, map interpretation, concept quiz and descriptive assignments on river erosion, transportation,	Lecture-cum-demonstration using geomorphic models, animations, satellite images, topographic sheets and drainage maps; inquiry-based learning through diagram interpretation and case studies of Indian rivers; evaluation through map work, labelled sketches,	4	

	information. Value & Attitude: Develop analytical and problem-solving skills while appreciating sustainable river basin management.	Hjulström Curve, river capacity and competence, and major erosional and depositional fluvial landforms.	presentations, quizzes, assignments and formative feedback.		
--	---	---	---	--	--