DEPARTMENT OF GEOGRAPHY
RABINDRANATH TAGORE UNIVERSITY
SYLLABUS AS PER NEP 2020
FOUR-YEAR UNDERGRADUATE PROGRAMS
SUBJECT: GEOGRAPHY
Paper Code : MAJ-GEO-1.1
PAPER NAME: GEOMORPHOLOGY

Distribution of Marks : 80 (End Sem) +20 (Sessional)

Total Credit = 4 Credit

Course Objectives

- This fundamental and introductory course aims to introduce students to the principles and processes of geomorphology.
- The course will enhance students' understanding of the Earth's surface features and the processes that shape them.
- It aims to equip students with the skills to analyze various landforms and understand their formation and development.

Course Outcomes

- Students will develop an understanding of geomorphological processes and landforms.
- They will gain practical knowledge in analyzing and interpreting landform development.
- The course will also prepare students for higher studies and competitive exams related to geography.

Unit 1: Introduction to Geomorphology (Classes: 8)

- Definition, Scope, and Importance of Geomorphology
- Fundamental Concepts: Uniformitarianism, Catastrophism, and the Geologic Cycle
- Structure of the Earth and Plate Tectonics

Unit 2: Endogenic Processes (Classes: 10)

- Earth Movements: Diastrophism and Volcanism
- Types of Folds and Faults

- Earthquakes and Volcanoes: Causes, Effects, and Distribution

Unit 3: Exogenic Processes (Classes: 10)

- Weathering: Types and Processes
- Mass Wasting: Types and Factors
- Erosion and Deposition by Running Water, Wind, Glaciers, and Coastal Waves

Unit 4: Landforms (Classes: 12)

- Fluvial Landforms: Valleys, Floodplains, and Deltas
- Aeolian Landforms: Sand Dunes and Loess
- Glacial Landforms: Moraines, Eskers, and Drumlins
- Coastal Landforms: Beaches, Spits, and Bars

Recommended Books

1. Geomorphology by Savindra Singh
2. Modern Approaches to Fluvial Geomorphology by Ramkrishna Maiti
3. Principles of Geomorphology by W.D. Thornbury
4. Fundamentals of Geomorphology by Richard Huggett
5. Geomorphology: The Mechanics and Chemistry of Landscapes by Robert S. Anderson and Suzanne P. Anderson
6. Tectonic Geomorphology by Douglas W. Burbank and Robert S. Anderson
7. Fluvial Processes in Geomorphology by Luna B. Leopold
8. Coastal Geomorphology by Eric Bird
9. Glacial Geomorphology by David Evans
10. Aeolian Geomorphology by Ian Livingstone
11. Applied Geomorphology: Theory and Practice by R.J. Allison
12. Geomorphology and Global Environmental Change by Olav Slaymaker
13. Soil Geomorphology by A.J. Gerrard
14. Landforms and Geomorphology: Concepts and History by Richard J. Chorley

SUBJECT: GEOGRAPHY
Paper Code: MIN-GEO-1.1
PAPER NAME: BIOGEOGRAPHY

Distribution of Marks : 80 (End Sem) +20 (Sessional)

Total Credit = 4 Credit

Course Objectives

- This fundamental and introductory course aims to introduce students to the principles and concepts of biogeography.
- The course will enhance students' understanding of the distribution of life on Earth and the factors influencing this distribution.
- It aims to equip students with the skills to analyze patterns of biodiversity and understand ecological and evolutionary processes.

Course Outcomes

- Students will develop an understanding of the spatial distribution of organisms and ecosystems.
- They will gain practical knowledge in analyzing biogeographical patterns and processes.
- The course will also prepare students for higher studies and competitive exams related to geography and environmental science.

Unit 1: Introduction to Biogeography **(Classes: 8)**

- Definition, Scope, and Importance of Biogeography
- Historical Development of Biogeography

Unit 2: Physical and Biological Factors **(Classes: 10)**

- Physical Factors: Climate, Soil, and Topography
- Biological Factors: Species Interactions, Adaptations, and Evolution

Unit 3 : Ecosystem **(Classes: 12)**

- Definition and Types of Ecosystem

- Structure and Function of Ecosystems : Components of Ecosystems: Biotic and Abiotic , Trophic Levels, Food Chains, Food Web, Energy Flow and Nutrient Cycling
- Disturbance and Succession in Ecosystems
- Impact of man on ecosystem

Unit 4: Biodiversity **(Classes: 10)**

- Definition, Types of Biodiversity
- Importance and Threats of Biodiversity
- Conservation of Biodiversity

Recommended Books :

1. Biogeography by Savindra Singh
2. Biogeography by N.N. Bhattacharyya
3. Biogeography by L.C. Agrawal
4. Biogeography and Biodiversity by R. B. Singh
5. Biogeography: An Ecological and Evolutionary Approach by C. Barry Cox and Peter D. Moore
6. Biogeography by James H. Brown and Arthur C. Gibson
7. Fundamentals of Biogeography by Richard J. Huggett
8. Island Biogeography: Ecology, Evolution, and Conservation by Robert J. Whittaker and José María Fernández-Palacios
9. The Song of the Dodo: Island Biogeography in an Age of Extinctions by David Quammen
10. Principles of Biogeography by Nigel Pears
11. Global Biogeography by J.C. Briggs
12. Biogeography and Ecology by C. Barry Cox
13. Dynamic Biogeography by R.H. MacArthur and E.O. Wilson
14. Conservation Biogeography by Richard J. Ladle and Robert J. Whittaker

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