



**DEPARTMENT OF GEOGRAPHY
RABINDRANATH TAGORE UNIVERSITY
SYLLABUS AS PER NEP 2020
FOUR-YEAR UNDERGRADUATE PROGRAMS
SUBJECT: GEOGRAPHY
Paper Code : GGY-MIN-3.2
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 I: Introduction to Geomorphology

(Classes: 8)

- Definition, Scope, and Importance of Geomorphology.
- Formation and evolution of the earth.
- Landforms and its types.

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 Process.
- 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 Approach. 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 Susanna P. Anderson
6. Tectonic Geomorphology by Douglas W. Burbank and Robert S. Anderson
7. Fluvial Processes in Geomorphology by Luna IL 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 ELJ. Allison
12. Geomorphology and Global Environmental Change by Olav Slaymaker
13. Soil Geomorphology by AJ. Gerrard
14. Landforms and Geomorphology: Concepts and History by Richard J. Chorley

Rabindranath Tagore University
Four Year Undergraduate Course

Subject: Geography (General)

Course Name: Quantitative Method and Cartographic Technique

Subject Code: GPY - Minor 402

Total Marks: 100 (Theory 45 + Practical 25 + Internal Assessment 30)

Part I: Theory

Unit 1: Quantitative Methods

1. Quantification and its significance in geographical study, advantages.
2. Geographical data: Nature, types and sources, concept of sampling and types of sampling.
3. Measures of central tendency (mean, median, mode) and dispersion (range, standard deviation) and their application in geographical data analysis.
4. Correlation and Regression Analysis: Meaning of correlation, coefficient of correlation (Spearman's rank correlation), linear regression analysis and their application in geographical data analysis.

Unit 2: Cartographic Technique

1. Meaning of Cartography and its need in geography.
2. Shape and size of the earth, coordinate system (Latitude and Longitude).
3. Map: Meaning, scale and classification, map as a tool in spatial analysis.
4. Map Projection: Meaning and classification (Zenithal, Conical and Cylindrical), choice of map projection.
5. Thematic maps: Meaning and types – Choropleth and Isopleth mapping.

Part II: Practical (Credit: 2 | Marks: 25)

Unit 1

1. Tabulation / grouping of geographic data, preparation of frequency distribution tables, Histogram, Frequency Polygon and Frequency Curve.
2. Computation of mean, median and mode for ungrouped and grouped data, graphical determination of median and mode.
3. Construction of graphical scales (Linear, Diagonal and Comparative).
4. Construction of graticules of Zenithal Polar Gnomonic and Stereographic, Simple Conical with one standard parallel, and Gall's stereographic cylindrical projection along with properties, uses and limitations.
5. Preparation of thematic maps (Choropleth, Isopleth, Bar graph and Pie diagram) for representing physical and human geographic data.

Unit 2

1. Practical notebook submission and Viva-voce (4 marks).