

Geog. 302

Geomorphology

Cr. Hours (03)

BS Geography 4 Years Programme, University of the Punjab, Lahore

- **Introduction**

- **Definition and Scope**

BS Geography w.e.f. Academic Session 2020-2024 and onward

- Development of Science of Geomorphology
- Muslims Contribution to the Science of Geomorphology

- **Models of Landform Development**
 - Structural Landform
 - Weathering Landforms
 - Erosional Landforms
 - Depositional Landforms

- **Geomorphic Process**
 - Endogenetic Processes
 - Exogenic Processes
 - Extraterrestrial Processes

- **Weathering**
 - Physical Weathering
 - Chemical Weathering
 - Biological Weathering

- **Mass Wasting**
 - Slow Flowage Type
 - Rapid Flowage Type
 - Subsidence

- **Glacier**
 - Genesis and Motion
 - Classification
 - Nourishment and Wastage
 - Erosional and Deposition Landforms

- **Fluvial Processes**
 - Fluvial Cycle
 - Rejuvenation
 - Idealised Fluvial Cycle
 - Complications of the Field Cycle
 - Drainage Pattern

- **Arid Cycle and Aeolian Landforms**
 - Forms of Wind Erosion
 - Wind Transportation
 - Wind Deposition
 - Karst Topography
 - Development of Karst Landscape
 - Characteristic of Karst Features

- **Quantitative Geomorphology**

- Methods of Geomorphological Investigation
- Morphometric Analysis
- Material Properties
- Process and Evolution
- **GIS and RS Applications**
 - Data Acquisition
 - Digital Terrain Modelling
 - Feature Extraction

Books Recommended:

1. Aronoff, S. 1995 Geographic Information Systems: A Management Perspective, Wdl Publications, Ottawa, fourth edition Canada
2. Cotton, C.A. 1949 Geomorphology An Introduction to the Study of Landform, John Wiley New York.
3. Drwry S.A. 1990 A Guide to Remote Sensing and Image Processing, University Press Oxford.
4. Englen O.D.V. 1942 Geomorphology, Macmillan New York
5. John. R.J. 1996 Introduction to Digital Image Processing. Prentice Hall.
6. Lobeck, A.K. 1939 Geomorphology, Macmillan New York.
7. Sparks, B.W. 1986 Geomorphology, Longman London.
8. Steers, J.A.1964 Unstable Earth.
9. Thomas M. Lillesand & Ralph W. Kiefer 2004 Remote Sensing and Image Interpretation. John Wiley & Sons Inc.
10. Thornsbury, W.D. 1983 Principles of Geomorphology, John Wiley New York
11. Paul J. Curran, 1985 Principles of Remote Sensing. Longman Group Ltd.
12. Wooldrige S.W. 1966 An Outline of Geomorphology, Physical Basis of Geography, Longman.