



CLUSTER UNIVERSITY SRINAGAR

SYLLABUS (FYUP UNDER NEP 2020)

Offered By Department Of GEOGRAPHY

Semester 1st (Minor Course)

Course Title: Physical Geography & Cartography-I

Course Code: UGGE022N101

Credits: 4 (Theory: 3, Practical: 1)

Contact Hrs: 75 (Theory 45, Practical 30)

Max. Marks 100

Theory External: 60; Min Marks: 24

Theory Internal (Continuous Assessment): 15 Marks, Min Marks: 06

Practical Experimental Basis= 15, Min. Marks: 06

Practical Experimental (Continuous assessment) = 10, Min. Marks: 04

Course Objectives:

- Understand the fundamental concepts in Earth Sciences.
- Understands basic terminology used to describe physical processes and landscape.
- Describe elements of atmosphere and the oceans.

Course Outcomes:

- The student will describe geography and physical geography.
- The student will be able to understand, identify and describe landforms, atmospheric elements and basics of oceanography.
- Students will learn how human, physical, and environmental components of the world interact.
- The individuals will be able to identify, describe, create, construct and prepare different cartographic features such as map, scale at the initial level.

UNIT I

15 Hrs

1. Physical Geography and its various branches
2. Structure of earth's interior – Seismographic evidence & analysis
3. Continental Drift Theory – Wegner's concept
4. Sea floor Spreading & Plate Tectonics – Geometry of Plates
5. Earthquakes: Origin, types & distribution.

UNIT II

15 Hrs

1. Climatology: Definition, Scope & Significance
2. Composition & Structure of atmosphere (Thermal)
3. Insolation: factors, global heat budget.
4. Atmospheric Pressure, Winds: Major classification (Planetary, Periodic & Local); Cyclones & anticyclones.
5. Jet Streams & El – Nino.

UNIT III

15 Hrs

1. Surface configuration of ocean floor.
2. Temperature & Salinity: Horizontal & Vertical Distribution
3. Coral Reefs: Origin, Types & Distribution.
4. Movement in Ocean Waters – Tides: Origin & Types.
5. Movement in Ocean Waters – Currents: Origin & Types.

Suggested Readings

1. D.S. Lal, *Physical Geography*, Sharda Pustak Bhawan, 2009.
2. Singh S., *Physical Geography*, Prayag Pustak Bhawan, 2000.
3. Majid Husain, *Physical Geography*, Anmol Publications Pvt. Ltd, 2007.
4. S.A. Qazi, *Principles of Physical Geography*, AHP Publishing Co. 2004.
5. Satopa Mukherjee, *Understanding Physical Geography*, Oriental Longman 2002.
6. A.H. Strahler & A.N. Strahler, *Modern Physical Geography*, John Wiley & Sons, Inc., 2001.
7. Critchfield, H., *General Climatology*, Prentice Hall, New York, 1975.
8. Stringer, E.T., *Foundation of Climatology*, Surjeet Publications, Delhi, 1982.
9. Grald, S, *General Oceanography – An Introduction*, John Willey & Sons, New York, 1980.
10. King, C.A.M., *Oceanography for Geographers*, E Arnold, London, 1975
11. Paul, R Pinet., *Oceanography*, Jones & Bartelett Publishers, 1998.

UNIT: IV

1. Cartography-Definition and Scope
2. Maps – Definition, Essentials & Classification
3. Scale- Definition, Importance & ways of expression.
4. Construction of Scales – Plain, Diagonal & Comparative.
5. Cartographic Symbols: Types; Use of Point & area symbols to represent distribution & density of Population
6. One Day Geomorphic Field Trip.

Suggested Readings:

1. Robinson, A.H et al., *Elements of Cartography*, John Wiley & Sons, U.S.A., 1995.
2. Sarkar, A.K., *Practical Geography – A Systematic Approach*, orient Longman, Calcutta, 1997.
3. Singh, R.L. and Dutt, P.K.: *Elements of Practical Geography* Kalyani Publishers, New Delhi.
4. Gopal Singh, *Map World and Practical Geography*, Vikas Publishing House 2000.
5. Khullar, D.R., *Essentials of Practical Geography*, New Academic Publishing Co., Jalandhar, 2013.