Four Year Under-Graduate Programme

Subject: Geography
Semester: I

Course Name: Introduction to Physical Geography

(Compulsory)

Course Code: GGY0100104

Course Level: Foundation & Introductory

100 Marks (Theory =80 Marks, Internal Assessment = 20 Marks)

Theory (4 Credits, 80 marks, 60 classes of one-hour duration)

Course Objective:

- Explain the basic concepts and principles of physical geography.
- Identify the major processes that shape the Earth's physical environment.
- Analyze how physical geography processes impact human activities and development
- Apply critical thinking skills to analyze and solve problems related to physical geography

Course outcome:

1. *Understand the evolution, concept, scope, and branches of Physical Geography and its interdisciplinary nature.*
2. *Appreciate the scope and significance of Geomorphology, and comprehend fundamental concepts such as catastrophism and uniformitarianism.*
3. *Grasp the meaning, scope, and critical elements of Climatology such as insolation, heat budget, and the relationship between temperature, pressure, and precipitation.*
4. *Understand the fundaments of Oceanography, including the origins of ocean basins and currents, and the relationship between temperature and salinity.*
5. *Comprehend the essence, scope, and key concepts of Biogeography such as the biosphere, ecology, ecosystems, and biodiversity.*

Unit I: Evolution and growth of Physical geography

Growth of nature-centric geography; evolution and trend of Physical Geography as a study of earth process systems; meaning, scope and nature of Physical Geography; branches of Physical Geography; Physical geography and its interdisciplinary nature.

Unit II: Geomorphology

Meaning, scope and significance of geomorphological studies. fundamental concepts in geomorphology: catastrophism, uniformitarianism, and Davisian concept of landform development.

Unit III: Climatology

Meaning, scope and significance of climatological studies. fundamental concepts in Climatology: insolation and heat budget, temperature, pressure and precipitation relationship; pressure and windsystems.

Unit IV: Oceanography

Meaning, scope and significance of oceanographic studies; fundamental concepts in oceanography: origin of ocean basins, the origin of ocean currents, temperature and salinity relationship.

Unit V: Biogeography

Meaning, Scope and Significance of biogeographic studies; fundamental concepts in Biogeography: biosphere, ecology, Ecosystem, biodiversity

Reading List

1. Strahler, A., and Strahler, A. (2007). Physical geography. John Wiley & Sons.
2. Bloom, A. L., and Bloom, A. L. (1998). Geomorphology: a systematic analysis of late Cenozoic landforms (No. 551.41 B5.). Upper Saddle River: Prentice Hall.
3. Waugh, D. (2000). Geography: An integrated approach. Nelson Thornes.
4. Kale, V.S. and Gupta, A. (2001) Introduction to Geomorphology. Orient Longman, New Delhi.
5. Selby, M.J. (2005) Earth's Changing Surface: An Introduction to Geomorphology. Clarendon Press
6. Thornbury, W. (1968). Principles of Geomorphology.- John Wiley and Sons, 394 p. New York.
7. Siddhartha, K. (2018): Oceanography, A brief Introduction, Kitab Mahal
8. Howard, J. Critchfield: General Climatology, 2008, Pearson
9. Lal, D.S.(2022) Climatology, Sarda Pustak Bhaban
10. C.Barry Cox, Peter D. Moore, (2000), Biogeography, John Wiley and Sons Ltd

Theory Credit : Four (4)
Practical Credit : Zero (0)

No. of Required Classes : 60
No. of Contact Classes : 40
No. of Non-Contact Classes : 20

Particulars of Course Designer (Department of Geography, Gauhati University, geography@gauhati.ac.in)