

B.A. /B.Sc (Programme) Geography Core Course (4CompulsoryCourses)

1. Physical Geography

Course Objectives:

- 1) This course shall introduce definition and scope of physical geography.
- 2) This paper shall elucidate the characteristics of atmosphere, lithosphere, and the fluvial cycle of erosion.
- 3) This course shall provide detailed understanding related to hydrosphere and its related processes.

Learning Outcomes:

- 1) This paper shall enable the students to understand the basic concepts, definition and scope of physical geography.
- 2) This course shall enable the students to comprehend the dynamics of atmosphere, lithosphere and fluvial erosion cycle.
- 3) Students shall be well-versed with hydrological processes, ocean bottom relief, tides and currents.

Discipline Specific Major Courses for Geography

GEODSC101T – Physical Geography ✧

3 Credits [45 hours of teaching]

Unit I: Geotectonics and Geomorphology

1. Internal Structure of Earth based on Seismic Evidence.
2. Influence of lithology on landforms: Granite and Basaltic landforms.
3. Factors controlling landform development; endogenetic and exogenetic forces.
4. Evolution of landforms under fluvial process
5. Nature and classification of hazards in Indian context

Unit II: Climatology, Soil and Biogeography

6. Nature, composition and layering of the atmosphere
7. Distribution of pressure belts and planetary wind system, jet streams, and index cycle.
8. Factors of soil formation
9. Evolution of an ideal soil profile
10. Concept of ecosystem — basic ecological principles, eco tone, communities, niche, succession, and habitat.
11. Concept of Biomes: study of Tropical rainforest, Taiga, Savannah, Desert, Tundra and Temperate grasslands

Reading List

- Coch, N.K. 1994. Geohazards: Natural and Human, Pearson College.
Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author

- House, USA. Critchfield, H.J., 1983: General Climatology. Prentice Hall India Ltd. (2010 Reprint) Dash, M.C., 2001. Fundamentals of Ecology, 2nd edition, Tata McGraw-Hill, New Delhi.
- Franzmeier, D.P., McFee, W.W., Graveel, J.G., Kohnke, H., 2016: Soil Science Simplified, 5th ed, Waveland Press. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
- Garrett N., 2000: Advanced Geography, Oxford University Press.
- Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
- Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
- Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur. Kormondy, E.J. 1996. Concepts of Ecology, 4th edition, Prentice-Hall, India, New Delhi. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
- Sharma, P.D. 2011. Ecology and Environment, Rastogi Publications. Singer, M., Munns, D.N. 2005. Soils: An Introduction, 6th ed, Pearson.
- Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York. Weil, R.R., Brady, N.C. 2022. The Nature and Properties of Soils, 15th ed, Pearson Education.

GEODSC101P – Physical Geography (Lab) ✧

2 Credits [60 hours of teaching]

An A3-size laboratory notebook, comprising class assignments of the following is to be prepared and submitted. The exercises are to be drawn in pencil. All texts are to be handwritten. All exercises in the laboratory notebook should be duly signed by concerned teacher.

1. Graphical construction of linear scales: Plain.
2. Altimetric frequency distribution; Demarcation of broad physiographic zones.
3. Denoting drainage, geomorphic, settlement and transport attributes using sketches.
4. Identification of drainage and channel patterns from Survey of India 1:50,000 topographical maps.
5. Construction and interpretation of wind rose diagram
6. Viva voce based on laboratory notebook.

Reading List

Monkhouse F.J., Wilkinson H.R. 1971. Maps and Diagrams, their compilation and construction, 3rd ed (2017 reprint), Alphaneumera.

Basu, P. 2021. Advanced Practical Geography — a Laboratory Manual, 4 ed, Books and Allied.

Sarkar, A. 2015. Practical Geography: A Systematic Approach, 3rd ed, Orient Blackswan.

Singh, R.L., Singh, R.P.B. 2008. Elements of Practical Geography, Kalyani Publishers.

Vaidyanadhan, R., Subbarao, K.V. 2014. Landforms of India from Topomaps and Images, Geological Society of India.

2. Human Geography

Course Objectives:

1. This course shall introduce definition, nature, major sub fields and relevance of human geography.
2. This paper shall elucidate about space and society, cultural regions, race, religion and language.
3. This course shall provide detailed understanding related to world population growth, population theory and settlement patterns.

Learning Outcomes:

- 1) This paper shall enable the students to understand the basic concepts, nature and relevance of human geography.
- 2) This course shall enable the students to appreciate the interrelationships between space and society, characteristics of cultural regions, race, religion and language.
- 3) Students shall be well-versed with the world population growth patterns, demographic transition theory, settlement patterns and urbanization process.

Course Contents:

1. Definition, Nature, Major Sub fields, Contemporary Relevance.
2. Space and Society: Cultural Regions; Race; Religion and Language
3. Population: Population Growth and Demographic Transition Theory.
4. World Population Distribution and Composition (Age, Gender and Literacy).

Settlements: Types and Patterns of Rural Settlements; Classification of Urban Settlements; Trends and Patterns of World Urbanization

GEODSC202T – Human Geography ✧

3 Credits [45 hours of teaching]

Unit I Scope and Approaches

1. Elements of Human Geography: Nature, scope and recent trends.
2. Approaches to Human Geography; Resource, Locational, Landscape, Environmental

Unit II Social and Population Geography

3. Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming, industrial society and post-industrial urban society.
4. Human adaptation to environment: Eskimo, Masai and Maori
5. Population distribution, density and growth of world population.
6. Demographic Transition Theory

Unit III Economic and Settlement Geography

7. Sectors of the economy: primary, secondary, tertiary and quaternary, quinary
8. Types of agriculture: Intensive subsistence rice farming, Plantation agriculture (Tea)
9. Site, situation, types and patterns of Rural Settlements

10. Classification of Urban Settlements after Census of India.

Reading List

- Bose, N.K. 2020. Tribal Life In India, 5th ed (updated by Tripathi, C.B.), National Book Trust. Chandna R.C. 2022. Geography of Population, Part 1: Concepts, Determinants and World Patterns, Kalyani Publishers. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
- Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
- Dorrel, D., Henderson, P. 2018. Introduction to Human Geography. University of Georgia Press. Fouberg, E.H., Nash, A.B., Murphy, A.B., de Blij, H., 2015. Human Geography: People, Place, and Culture, 11th ed, Wiley.
- Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
- Gregory, D., Johnston, R., Pratt, G., Watts, K., Whatmore, S. (Eds) 2009. The Dictionary of Human Geography, 5th ed, Wiley-Blackwell.
- Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
- Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
- Knox, P.L., Marston, S.A. 2014. Human Geography, Places and Regions in Global Context, 6th ed, Pearson Education.
- Majumdar, P.K. 2013. India's Demography: Changing Demographic Scenario in India, Rawat Publications. Mercier, M., Norton, W. 2019. Human Geography, 10th ed, Oxford University Press.
- Paul, C., Crang, P., Goodwine, M.G. 2014, Introducing Human Geographies, 3rd ed, Routledge.
- Rubenstein J.M., 2018, Contemporary Human Geography, 4th ed, Pearson.
- Short, R.J. 2017. Human Geography: A Short Introduction, 2nd ed, Oxford University Press. Sing, R.Y. 2009, A Geography of Settlements, Rawat Publications

GEODSC303T – Geotectonics and Geomorphology ✧

3 Credits [45 hours of teaching]

An A3-size laboratory notebook, comprising class assignments of the following is to be prepared and submitted. The exercises are to be drawn in pencil. All texts are to be handwritten. All exercises in the laboratory notebook should be duly signed by concerned teacher.

1. Growth rate of population: Arithmetic growth comparing two decadal datasets
2. Density of population of Indian states or West Bengal districts by choropleth method
3. Identification of types of settlements according to sites from Survey of India 1:50,000 topographical maps
4. Correlating physical and cultural attributes using transect chart.
5. Proportional pie-diagrams, and proportional square representing economic data and land use data.
6. Viva voce based on laboratory notebook

Reading List

Basu, P. 2021. Advanced Practical Geography — a Laboratory Manual, 4 ed, Books and Allied.

Monkhouse F.J., Wilkinson H.R. 1971. Maps and Diagrams, their compilation and construction, 3rd ed. (2017 reprint), Alphaneumera.

Sarkar, A. 2015. Practical Geography: A Systematic Approach, 3rd ed, Orient

Blackswan. Singh, R.L., Singh, R.P.B. 2008. Elements of Practical Geography, Kalyani Publishers.

WEBSITE:

Census of India: <https://censusindia.gov.in/census.website/data/census-tables>

