3 Yr. Degree Course
(Minor)
based on NEP-2020
GEOGRAPHY

(Effective from Session 2024-25)

(Batch: 2024-2027)

SAMBALPUR UNIVERSITY

JYOTI-VIHAR, BURLA, SAMBALPUR, ODISHA-768019

COURSE AT A GLANCE (NEP-UG)

SUBJECT -GEOGRAPHY *ACADEMIC SESSION:* **2024-27**

CORE-I COURSE

Course Number	Semester	Course Title	Type of Paper P-Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
Paper-I	I	PHYSICAL GEOGRAPHY	P	4	100
Paper-II		HUMAN GEOGRAPHY	P	4	100
Paper-III	II	POPULATION GEOGRAPHY	P	4	100
Paper-IV		CARTOGRAPHY AND GEO-SPATIAL TECHNIQUE	P	4	100
Paper-V	III	ENVIRONMENTAL AND BIO GEOGRAPHY	P	4	100
Paper-VI		QUANTITAIVE TECHNIQUES	P	4	100
Paper-VII		ECONOMIC GEOGRAPHY	P	4	100
Paper-VIII	IV	REMOTE SENSING AND GIS	P	4	100
Paper-IX		GEOMORPHOLOGY	P	4	100
Paper-X		EVOLUTION OF GEOGRAPHICAL THOUGHTS	P	4	100
Paper-XI	V	REGIONAL PLANNING AND DEVELOPMENT	P	4	100
Paper-XII		GEOGRAPHY OF ODISHA	P	4	100
Paper-XIII		CLIMATEOLOGY AND OCEANOGRAPHY	P	4	100
Paper-XIV	VI	GEOGRAPHY OF INDIA	P	4	100
Paper-XV		URBAN GEOGRAPHY	P	4	100
Paper-XVI	VII	RESEARCH METHODOLOGY	P	4	100
Paper-XVII		NATURAL HAZARDS AND DISASTER MANAGEMENT	P	4	100
Paper-XVIII		NATURAL RESOURCES MANAGEMENT AND GEOINFORMATICS	P	4	100

Paper-XIX		HUMAN DEVELOPMENT AND SUSTAINABLE DEVELOPMENT	P	4	100
Paper-XX	VIII	GEOSPATIAL MODELLING, ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	P	4	100
Paper-XXI		FIELD SURVEY: TOOLS AND TECHNIQUES	P	4	100
Paper-XXII		POLITICAL GEOGRAPHY AND GLOBALISATION	P	4	100
Paper-XXIII		SOCIAL AND CULTURAL GEOGRAPHY	P	4	100

CORE-II/CORE-III COURSE

Course Number	Semester Core-II/ Core-III	Course Title	Type of Paper P-Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
Paper-I	I/II	PHYSICAL GEOGRAPHY	P	4	100
Paper-II	III/IV	HUMAN GEOGRAPHY	P	4	100
Paper-III	V/VI	POPULATION GEOGRAPHY	P	4	100
Paper-IV	VII	GEOGRAPHY OF INDIA	P	4	100
Paper-V	VIII	GEOGRAPHY OF ODISHA	P	4	100

CORE COURSE II/ III

Minor (Paper-I) Semester I/II

PHYSICAL GEOGRAPHY

(4 Credit, Theory: 45hrs, Practical: 30hrs)

Unit- I:

Learning Outcome:

Comprehend the fundamentals of geomorphic processes, landforms, climate systems, and hydrology, enabling them to analyze and explain the interconnectedness of these elements within global ecosystems

Meaning, scope, and components of physical geography, Interior of the Earth; Origin of continents and oceans; Isostasy; Earthquakes and volcanoes; Earth movements; Faults, folds; Continental Drift and Plate Tectonic Theories; ; Cycle of erosion: Davis and Penck; Weathering and Mass Wasting.

Unit-II:

Learning Outcome:

Gain comprehensive understanding of the Earth's atmospheric structure, composition, and characteristics, and be able to analyze and interpret climate patterns, factors influencing climate, and the impact of climatic changes on various ecosystems and human societies.

Elements of weather and climate; Structure and composition of atmosphere. Insolation and heat budget, vertical and horizontal distribution of temperature; Atmospheric pressure and windsAir mass, Frontogenesis, Tropical CyLOne and Origin; and mechanism of Monsoon.

Unit-III:

Learning Outcome: Acquaint themselves with thorough understanding of the hydrological cycle, the movement and distribution of water across terrestrial and marine systems, allowing them to ocean bottom topography, ocean temperature and salinity, ocean currents, and sediment deposits.

Hydrological Cycle: Factors affecting run-off, infiltration and groundwater. Water Storage and Circulation; Ocean bottom topography; Temperature and salinity of ocean water; Ocean current and deposits.

Unit-IV: (Practical)

Learning Outcome:

Honed their fieldwork and laboratory skills, enabling them to apply physical geographic methods to collect, analyze, and interpret data from real-world environments.

proficient in representing relief features such as Mountains, Valleys (U shaped and V shape), Waterfalls, Plateaus, and

1. Drawing of Contour Features – Mountain, Valley (U shaped and V shape), Waterfall, Plateau and Escarpment; 2. Calculation of time of place with reference to GMT; 3. Introduction to use of simple weather observation instruments: Thermometer (Wet and dry bulb temperature), Barometer, hygrometer, anemometer, wind vane, Rain Gauge, Stevenson Screen, 4. Interpretation of weather maps; Construction and interpretation hydrographs and unit hydrographs; T-S Diagram. 5. Practical Record and Viva. Suggested Readings:

Text Books: ✓ Singh, S. (2020). Physical Geography. Prayag Pustak Bhawan, Allahabad. ✓ Strahler, A. H., & Strahler, A. (2005). Introducing Physical Geography. John Wiley & Sons, New York.

Reference Books:

✓ Chow, V. T., Maidment, D. R., & Mays, L. W. (1988). Applied Hydrology. Retrieved from https://ponce.sdsu.edu/Applied_Hydrology_Chow_1988.pdf ✓ Critchfield, H. (1975). General Climatology. Prentice-Hall, New York. ✓ Garrison, T. (1998). Oceanography. Wadsworth.com. USA 1998. ✓ Getis, V., Getis, A., & Bjelland, M. D. (2020). Introduction to Geography. McGraw Hill India. ✓ Holden, J. (2017). An Introduction to Physical Geography and the Environment. Pearson Education Ltd., Harlow, UK. ✓ King, C. A. M. (1975). Oceanography for Geographers. E. Arnold, London. ✓ Lohani, A. K. (n.d.). Practicing Hydrology-An Overview. Retrieved from http://nihroorkee.gov.in/sites/default/files/uploadfiles/Practicing-Hydrology.pdf ✓ Monkhouse, F. J. (1960). Principles of Physical Geography. Hodder and Stoughton, London. ✓ Pitty, A. (1960). Introduction to Geomorphology. Methuen, London. ✓ Steers, J. A. (1964). The Unstable Earth: Some recent views in geography. Kalyani Publishers, New Delhi. ✓ Strahler, A. N., & Strahler, A. H. (1992). Modern Physical Geography. John Wiley &

Sons. ✓ Thornbury, W. D. (1969). Principles of Geomorphology. Wiley Eastern. ✓ Ward, A. D., Trimble, S. W., Burckhard, S. R., & Lyon, J. G. (2015). Environmental Hydrology. Boca Raton. ✓ Wooldridge,

S. W., & Morgan, R. S. (1959). The Physical Basis of Geography - An Outline of Geomorphology. Longman Green & Co., London, 1959.

Minor (Paper-I)
Semester-III / IV

HUMAN GEOGRAPHY

(4 Credit, Theory: 45hrs, Practical: 30hrs)

Unit-I:

Learning Outcome:

Analyse the complex relationships between humans and their physical and social environments. Identify and analyze the key concepts of human geography and its evolution.

Meaning, Nature and Scope of Human Geography; Its Contemporary Relevance; Major Themes and concepts of Human Geography (Location, Place, Region and Movement, Accessibility, Agglomeration, Mental Map, Space, Space-time continuum, Landscape , Regionalism, Topophilia and topophobia, Diffusion, and Distribution) Man-nature interrelationship (Determinism, Possibilism and Neo-determinism), Development of human geography- contributions of Germans, French and Americans.

Unit - II:

Learning Outcome:

Understand patterns and processes of population growth and its implications. Demonstrate cultural awareness and sensitivity in understanding diverse race, religion, linguistic, ethnicity and cultural practices and beliefs that shape human geography and their implications for society.

World Distribution of racial, religious, linguistic and ethnic groups; Evolution of Culture and Cultural realms of the world; World Population Growth, Population Problems. Global cultural diversities-diffusion of culture.

Unit-III:

Learning Outcome: Understand types and patterns of human settlement and its dynamism. understand different forms of inequalities.

Types and Patterns of Rural Settlements; Concept and Classification of Urban Settlements; World Urbanization with special reference to developing countries, Salient Features of cultural globalization. Regional diversity and disparity (Gender, Ethnicity and Income).

Unit-IV: Practical

Learning Outcome:

Design and implement research projects related to human geography, including the collection, analysis, and interpretation of data related to socio-cultural and economic status of local/regional ethnic communities. Communicate complex ideas related to human geography to a range of audiences, both orally and in writing.

Project Report and Presentation on

1. Socio-cultural and economic status of any ethnic group in India.
Or

2. Evolution of the settlement where you live/local settlement.

Suggested Readings:

Text Books:

✓ Hussain, Majid (2012) Human Geography, Rawat Publications, Jaipur. ✓ Harm d. Blij. (1992). Human and Economic Geography, Mac Millan, New York. ✓ Singh, L.R. (2005). Fundamentals of Human Geography. Sharda Pustak Bhawan, Allahabad. Reference Books:

✓Ahmed, A. (1999). Social Geography, Rawat Publication, New Delhi. ✓Daniel, P.A. and Hopkinson, M.F. (1989). The Geography of Settlement, Oliver & Boyd, London. Human Geography, Rupa Publication. ✓Fellmann, J. D., Getis, A., Getis,J. (2000). Human Geography- Landscape of Human Activity, McGraw Hill, NewYork. ✓Fouberg, E.A, Murphy, A.B. & de Blij, H. J. (2015). Human Geography: Culture, Society and Space. Wiley

✓ 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. & Marston, S. (2013): Human

Geography: Places and Regions in Global Context, 6th Edition, Pearson Education, New Delhi. ✓ *Leong. G.C. and Morgan, G.C. (1975). Human and Economic Geography, Oxford Universi*ty Press, Hong Kong. ✓ Rubenstein, James M. (2022) Contemporary Human Geography , Pearson, U.S.A

Minor (Paper-III)

Semester- V / VI
Population Geography

(4 Credit, Theory: 45hrs, Practical: 30hr)

Unit- I:

Learning Outcome: Explain meaning, scope and development of population geography as a distinct branch of Geography

Defining the Field, Nature and Scope of population geography; Sources of population data with special reference to India (Census, National Family Health Survey and NSS); Demographic Balancing Equation; Population Distribution and Growth – Measures, Factors, and World Patterns; Concept of Doubling Time, Concepts of Rate, Ratio and Proportion.

Unit- II:

Learning Outcome: Understand key concepts, different components of population along with its drivers

Population Dynamics: Fertility, Mortality and Migration - Measures, Determinants and Implications; Theories of Population Growth – Malthusian Theory, Optimum Population Theory and Demographic Transition Theory; Population Resource Regions.

Unit-III:

Learning Outcome: Examine population dynamics and resultant socioeconomic issues and problems.

Population Composition and Characteristics – Age-Sex, Rural-Urban, Literacy, Occupational Structure; Contemporary Population Issues – Population Ageing, Declining Child Sex Ratio, HIV/AIDS;

Population problems and policies in Developed and Developing countries with Special reference to India.

Unit-IV: Practical

Learning Outcome:

compare and relate population growth and distribution of developed and developing countries 1. Estimation of Population Growth 2. Arithmetic and Geometric Projection calculation and graphical display 3. Population distribution maps using symbols – Simple and Multiple Dots, Circles and Spheres 4. Construction of Lorenz Curve 5. Construction of Population Pyramid 6. Practical Record and Viva-Voce

Suggested Readings:

Reference Books: ✓ Chandna, R. C. (2015). An Introduction to Population Geography, Kalyani Publishers. ✓ Clarke, J. I. (1965). Population Geography, Pergamon Press, Oxford.

Suggested Readings:

✓ Barrett, H. R. (1995). Population Geography, Oliver and Boyd. ✓ Bhende, A. and Kanitkar T. (2000). Principles of Population Studies, Himalaya Publishing House. ✓ Hassan, M.I (2020). Population Geography: A Systematic Exposition, Routledge, London and New York. ✓ Jones, H. R. (2000). Population Geography, 3rd ed. Paul Chapman, London. ✓ Newbold, K. B. (2009). Population Geography: Tools and Issues, Rowman and Littlefield Publishers. ✓ Pathak, K.B and F. Ram (2016). Techniques of Demographic Analysis, Himalaya Publishing House, Mumbai. ✓ Maurya, S. D. (2017). Population Geography, Sharda Putak Bhawan, Allahabad. ✓ Srinivasan, K (1998). Basic Demographic Techniques and Applications, Sage Publications, New Delhi.

Minor (Paper-IV)

Semester- VII (With/Without Research)

Geography of India

Unit-I:

Learning Outcome:

Understand the locations, physiography, climatic conditions, and distribution of soils in India.

Physiography divisions of India, Himalayan and Peninsular rivers, watershed and interlinking rivers, India's Climatic classification by Koeppen and Trewartha, Mechanism of Indian monsoon, Soils: distribution and characteristics of major soil groups.

Unit-II

Learning Outcome: Acquaint themselves with thorough understanding of the Indian Agriculture and regional disparities in agricultural development.

Agricultural regionalization-Agro climatic zones, regional disparities in agricultural development, Govt. Schemes related to Agriculture; Green revolution, white, blue revolution and its socio economic cum ecological implications. Joint Forest Management, Social forestry, Conventional and non-conventional sources of energy, Energy Crisis and Conservation, Biosphere reserves and National Parks.

Unit-III

Learning Outcome: Familiar with the Industries, industrial policy and transport networks of India.

Industries: Types and classifications, Factors of location and development of jute, Tea, Paper, Fertilizer and IT industries, Industrial policies in India, SEZs, Transport system of India: Roadways, Railways, Ports, Inland waterways , Airways and Pipeline network, Growing importance of ports in national and foreign trade.

Unit-IV

Learning Outcome: Understand the regional development and planning and political Aspects of India.

Experience of regional planning in India: Five year plans; integrated rural development programmes; Panchayati Raj and decentralized planning; Command area development; Watershed management; planning backward area, desert, drought-prone, hill tribal area development, Multi-level planning, Geographical basis of Indian federalism, State reorganization, Emergence of new states, Regional consciousness and inter-state issues, International boundary of India and related issues.

Suggested readings:

Text Books:

✓Khullar, D. R. (2018). India: A Comprehensive Geography. New Delhi: Kalyani Publishers. ✓Deshpande C. D. (1992). India: A Regional Interpretation. ICSSR, New Delhi.

Reference Books:

✓Husain, M. (2022). Geography of India. New Delhi: Tata McGraw-Hill Education.

✓Sharma, T. C. (2003). India - Economic and Commercial Geography. Vikas Publ., New Delhi.

✓Singh, J. (2003). India - A Comprehensive & Systematic Geography. Gyanodaya Prakashan,

✓Gorakhpur.

✓Sharma, T.C. (2013). Economic Geography of India. Rawat Publication, Jaipur

Minor (Paper-IV)

Semester- VIII

(With/Without Research)

Geography of Odisha

Unit-I:

Learning Outcome:

Understand the locations, physiography, climatic conditions, and distribution of soils in Odisha.

Geological Structure: Distribution of Major Rock Systems; Physiographic Divisions; Factors Influencing Climate of Odisha; Climatic Regions; Major Soil Types; Natural Vegetation.

Unit-II

Learning Outcome: Acquaint themselves with thorough understanding of the demographic structure

Growth, Distribution and Density of Population; Population Composition: Linguistic, RuralUrban; Distribution of Cities and Towns; Regional Variation in Folk Housing Types in Rural Odisha; Processes and Dynamics of Migration in Odisha.

Unit-III

Learning Outcome: Familiar with the socio-cultural activity in Odisha.

Geographical Factors Behind Odisha's History and Culture; Evolution of Odia Language and Regional Variations; Diversity of Tribes and Social Formation; Regional Variation of Food Preferences and Habits; Folk and Popular Odia Cultures; Identifying Vernacular Cultural Regions of Odisha.

Unit-IV

Learning Outcome: Understand economy and Natural Disaster of Odisha.

Major Farming Types; Industrial Belts of Odisha; Cottage and Handicraft Industries of Odisha; Fisheries: Fresh and Marine; Aspirational districts and other major welfare schemes, Natural Disaster and Odisha (Cyclone, Flood): Risk and Vulnerability; Paradigm Shifts in Disaster Management: Success Stories of Odisha.

Suggested readings:

Text Books:

✓ Sinha, B. N. (2017). Geography of Odisha, National Book Trust, New Delhi ✓ Roy, G. C. (2023). Geography of Odisha. Kitab Mahal, Cuttack.

Reference Books:

✓ Pati, M. (1992). West Orissa: A study in Ethos. Sambalpur University Publication, Sambalpur. ✓ O'Malley, L.S. S. (2017). Provincial Geographies of India: Bengal, Bihar, Odisha and Sikkim. Eds. T. H. Holland. Cambridge University Press, New York. ✓ Sterling, Andrew and James Peggs. (1846). Orissa. John Snow, London. ✓ Behera, J.K. and G.K. Panda. (2020). Vulnerability Analysis of Cyclone Hazards and the Changing Dimensions of Disaster Risk management in Odisha along the East Coast of India. International Journal of Recent Scientific Research 11 (08): 39445-39453. ✓ ଆଦିକନ୍ଦ

ସାହୁ . (2003). ସମ୍ବଲପୁର : ଭାଷା , ସାହିତ୍ୟ , ସଂସ୍କୃତି . ସମ୍ବଲପୁର

ବିଶ୍ୱବିଦ୍ୟାଳୟ ପ୍ରକାଶନ , ସମ୍ବଲପୁର . ଆଶୁତୋଷ ପ୍ରସାଦ ପଟ୍ଟନାୟକ . (2017) ଆକା ମାଟବାଇ : ସାମ୍ବୁକବାଣଜ୍ୟ ଓସାଂସ୍କୃତିକବିବର୍ତ୍ତ . ଟେଣ୍ଡସ୍ ପବ୍ଲିରଷ୍ଟକ.