

Yogoda Satsanga Palpara Mahavidyalaya

Department of Geography

PROGRAMME OUTCOME (PO).

• Programme Outcome

After the completion of undergraduate program, the students will be able to assimilate the following program outcomes which can be divided as follows:

1. Knowledge Outcomes:

- Concrete knowledge about the basic disciplines of Geography and its sub branches.
- Know the basic concepts and terminologies used in Geography like interior of the earth, plate tectonic, sea floor spreading, population growth, disasters, composition and structure of atmosphere, hydrosphere, biosphere etc.
- Get information about the causes and effects of local, national and international problems like global warming, acid rain, ozone depletion, soil degradation, deforestation etc.

2. Skill Outcomes:

- Carry out surveying and learn the art of map making using surveying and cartographic techniques.
- Developing strong foundation on various statistical techniques, Construct various types of projections and scales as per requirement of the study.
- Collect primary and secondary data in the field survey.
- Apply various statistical formulas to analyze data in completion of the project.
- Use cartographic techniques with the help of simple software like MS Excel.
- Handle topographical maps, geological maps, weather maps and interpret them.
- Know about Geographical Information System (GIS) and Remote Sensing (RS) and their utility in day-to-day life.

PROGRAMME SPECIFIC OUTCOME (PSO)

1. Students will acquire knowledge and understanding landform development and the role of crustal mobility and tectonics, climate change, soil science, hydrological and oceanographic investigations to gain a holistic understanding of the Earth, Atmosphere, Hydrosphere and Biosphere.
2. Associating landforms with structure and process, developing man-environment interactions, and investigating Geography's location and role in relation to other social and earth sciences.
3. The branches of Economic Geography and Human Geography make them capable of identifying the development prerogatives of regions and applying them in formulation of regional development plans.

4. Analyzing the dynamics of global atmosphere and climate and understanding of the role of man in changing climate.
5. Recognize the role and function of global economies, industrial locations, and resource usage and exploitation, as well as their consequences.
6. Analyzing, understanding regional disparities, backwardness, unemployment and impacts of globalization and also understanding regional planning.
7. Understanding and accounting for regional differences, poverty, unemployment and globalization's effects. Explaining and assessing India's regional variety through natural and planning regions interpretation.
8. Inculcating a sensitive and sustainable mindset towards environment and conserve natural systems and ecological balance.
9. Examining ancient and modern geographical ideas, as well as their connections to modern concepts like as empiricism, positivism, radicalism, and behaviourism.
10. Sensitization and awareness of hazards and disasters to which the subcontinent is vulnerable and its management.
11. The students will get an idea about the importance of Statistics for the development of our country and how the statistical system in India works.
12. The specialization in Remote Sensing and use of Geographical Information System software's train them for recruitment in Government Space Application Projects that use GIS and satellite image interpretations for resource mapping and planning.

COURSE OUTCOME (CO)

A study of Geography of the undergraduate level entails the study of Geo tectonic, Geomorphology, Bio Geography, Soil Geography, Human Geography, Cartography and its Methods and Techniques. The correlation between nature and human can only be well understood through this discipline. The mapping techniques are guides to represent all the physical, social, cultural features maintaining proper scaling and elaborative description. The surveys and other projects & analysis are very helpful in carrying out a research carrier for the students. Besides this practical course imparts training and skills of map making, field survey and research. The classroom teaching is sufficiently supplemented by the invited lectures, workshops and field excursions. With the introduction of Geo- informatics comprising techniques such as Remote Sensing, GIS, GPS etc., the capacity to attempt analysis has increased tremendously. As geography is divided into various branches which have further scope future study like Climatology, Oceanography, Remote sensing and GIS After completion of this programme students can get ready not only for jobs but also for various research activities in National and International level.

Semester – I (CCFUP), 2023 & NEP, 2020)

MAJOR (MJ)

MJ-1: Geotectonics and Geomorphology

- Understand the functioning of Earth systems in real time and analyze how the natural and anthropogenic operating factors affect the development of landforms.
- Distinguish between the mechanisms that control these processes.
- Assess the roles of structure, stage and time in shaping the landforms, interpret geomorphological maps and apply the knowledge in geographical research.

SKILL ENHANCEMENT COURSE (SEC)

SEC 1: Computer Basics and Applications

- To get an overview of the computer system and its applications.
- Get an working knowledge of computer hardware and software.
- Get an idea of managing folders and files.
- Run an application, preferably, MS Word, MS Excel, MS PowerPoint.
- Representation and computation of data using statistical techniques.

MINOR (MI)

MI -1: Fundamentals of Earth System Science

- Understand the functioning of Earth systems in real time and analyze how the natural and anthropogenic operating factors affect the development of landforms.
- Distinguish between the mechanisms that control these processes.
- Understand different aspects of physical geography like hydrology, oceanography, climatology and soil science.

Semester-II(CCFUP – NEP 2020)

MJ-2: Cartographic Techniques

- Map as tool of Geography, helps student to grasp spatial ideas more precisely.
- Gain knowledge about topographical maps and apply this knowledge in ground surface.
- Develop an idea about scale and draw different types of scale like linear, diagonal and vernier and their importance in the cartography.
- Acquire knowledge about different types of map projections and their utility in constructing the various types of map.
- Comprehend locational and spatial aspects of the earth surface.
- Use and importance of maps for regional development and decision making.

SEC 2: Coastal Management

- Understanding the various components and coastal morphodynamic variables.
- Identifying the different environmental impacts and management of anthropogenic interventions.
- Analyze the policies of coastal zone management, focusing on EEZ, ICZM and CRZ.
- Assessing coastal hazards and its management.

MI – 2 : Human Geography

- Know the changing human and cultural landscape at different levels.
- Understand patterns and processes of population growth and its implications.
- Appreciate the nature and quality of human landscapes.

Semester-III (CBCS)

C5T: Climatology (GEOHCC05)

- Understand the elements of weather and climate, different atmospheric phenomena and climate change.
- Learn to associate the greenhouse effect and importance of ozone layer on the atmosphere.
- To analyze the dynamics of the Earth's atmosphere and global climate. Assessing the role of man in global climate change.
- Learn the interaction between the atmosphere and the earth's surface and understand the importance of the atmospheric pressure and winds.
- Understand the mechanism of precipitation (Bergeron and Collision and coalescence)
- Understanding the mechanism of monsoons and jet stream, tropical and mid latitudinal cyclone.
 - Students can acquire the knowledge about the different types of climatic classification given by several geographers, viz, Koppen, Thornthwaite, Oliver etc.

C6T&P: Statistical Methods in Geography (GEOHCC06)

- Recognize the importance and application of Statistics in Geography.
- Interpret statistical data for a holistic understanding of geographical phenomena.
- Know about different types of sampling, need and methods of random sampling.
- Learn to use tabulation of data, collection formation of statistical tables.
- Gain knowledge about association and correlation, regression and time series analysis and their uses in various socio- economic data.

C7T: Geography of India (GEOHCC07)

- The objective of the course is to understand India in terms of physiographic divisions, their important characteristics and their formation according to various tectonic and stratigraphic provinces during different areas.
- In depth knowledge of climate, soil, natural vegetation, agriculture, energy resources and industries of India.
- To familiarize the students with new modern technical methods and their applications in Agricultural activities.
- To familiarize the students with both physiographic and economic regionalization of India.
- To gain a vast knowledge about the physical perspectives, resources, population and regional issues of West Bengal.
- To learn about the various regional problems of Darjeeling Hills and Sundarbans and try to resolve those issues by taking various measures.

SEC1T: Coastal Management (GEOHSEC1)

- The main objective of this part of the syllabus is to obtain knowledge about various aspect of coastal management.
- The course mainly emphasis on components of coastal zones, coastal morphodynamics, coastal hazards, dune degeneration, coastal pollution etc.
- This part also gives a concrete idea about the coastal management, impact of tourism near the coastal areas, coastal regulation zones with reference to India.

GE3T: Geography of Tourism

- Build the concrete ideas about the concepts and issues of tourism, recreation and leisure and geographical parameters of tourism by Robinson.
- Have the ideas of types of tourism like ecotourism, cultural tourism, adventure tourism, medical tourism, pilgrimage etc.
- Have emphasis on environmental laws and tourism,current trends, spatial patterns and recent changes role of foreign capital and impact of globalization on tourism.
- Emphasis on tourism in India with some Case Studies of Dal lake, Goa, Garhwal Himalaya, Desert and Coastal Areas and promotion of Tourism - National Tourism Policy.

Semester- IV

C8T: Regional Planning and Development (GEOHCC08)

- To acquire knowledge about the concept of regional planning and development, their utilisation in different fields of geography.
- Understand and identify regions as an integral part of geographical study.
- Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development.

- Analyzing the concept of regions and regionalization.
- Gain knowledge about definition of region, evolution and types of regional planning. Develop an idea about choice of a region for planning.
- Build an idea about theories and models for regional development and their utility in today's world. Know about measuring development indicators
- Conceptualizing the idea about the need for regional planning in India.

C9T: Economic Geography (GEOHCC09)

- Understand the concept of economic activity, factors affecting location of economic activity. Gain knowledge about different types of Economic activities
- Assess the significance of Economic Geography, the concept of economic man and theories of choice.
- Analyze the factors of location of agriculture and industries.
- Understand the evolution of varied types of economic activities.
- Understanding the concept of International Trade and their interrelationships with various economic blocs.
- To familiarise the students with the factors affecting the location of economic activities related to agriculture and industry.
- To get an idea about the various primary, secondary and tertiary activities.
- Understanding of agricultural systems with the help of various case study.

C10 T&P: Environmental Geography (GEOHCC10)

- Gain knowledge about concept, scope of environmental geography and components of environment.
- Develop an idea about human-environment relationships.
- Build an idea about ecosystem.
- Know about environmental programmes and policies and their management.
- They can come to know about the preparation of the questionnaire on the basis of perception survey on environmental problems.
- Can gain knowledge about doing the project on environmental problems.
- The course will also enlighten students to develop the concept and preparation of the checklists for Environmental Impact Assessment related to the development of specific lists of projects under various sectors.

SEC2T: Research Methods (GEOHSEC2)

- Students learn about the types of data and methods of data collection and also study the processing and analysis of data.
- Understanding the basic objectives and hypothesis of research enquiry.
- Assessing the different qualitative and quantitative techniques of research.
- Enable the students to write the research report.

GE4T: Regional Development

- Analyzing the concept and types of regions.
- Enable the students to analyze various characteristics and parameters used for delineating the planning regions.
- Build an idea about theories and models for regional planning.
- Know about measuring development indicators.
- Understand about the regional development, regional inequality, disparity and diversity in India.

Semester- V

C11T&P: Field Work and Research Methodology (GEOHCC11)

- Learn the significance of field work in geographical studies.
- Understanding the meaning and significance of fieldwork in geographical studies and identifying the various methods of conducting the survey.
- Know about different types of field techniques and tools.
- Develop an idea about research problems.
- Develop skills in photography, mapping and video recording.
- The outcome of this syllabus will be to prepare a field report project based on primary data collected from the field.
- The topic will cover both physical and socio-economic aspects of that particular chosen area.
- Analyse the data by using different statistical techniques.

C12T&P: Remote Sensing and GIS (GEOHCC12)

- Have knowledge of the principles of remote sensing, sensor resolutions and image referencing schemes.
- The objective of the course is to introduce to the students the basic principles of remote sensing and the methods of digital interpretations of satellite images.
- The course provides hands-on- training on the basic elements of GIS and its areas of applications and contemporary mapping skills.
- Apply GIS to the preparation of thematic maps.
- Use GNSS.
- They can understand the GIS Data Structures and develop an idea about GIS Data Analysis.
- Know about the application of GIS.

DSE1T: Hydrology and Oceanography (GEOHDSE1)

- Analyse the concepts of Hydrology and Oceanography.
- Emphasizing the significance of groundwater quality and its circulation
- Evaluate the role of the global hydrological cycle.
- Studying the behaviour and characteristics of the major relief features of the global ocean and origin according to plate tectonics.

- Introduce students to the physical and chemical properties of ocean water, distribution and determinants of ocean temperature and salinity.
- Realize the importance of water conservation.
- Identify marine resources and characteristics of ocean waters.
- Students will be able to understand about the types causes of sea level changing.

DSE2T: Resource Geography (GEOHDSE2)

- Analyze the contemporary energy crisis and assess the future scenario.
- Understand the concept of Limits to Growth, resource sharing and sustainable use of resources.
- Analyze the decadal changes in state-wise production of coal and iron ore.
- Learn about the various resource conflicts and their management with special reference mineral resources and energy resources.
- To learn about the significance of resources in the economic growth and development of a country.
- It also aims to create an awareness amongst the students about the idea of sustainable use of resources.

Semester-VI

C13T: Evolution of Geographical Thought (GEOHCC13)

- Perceive the evolution of the philosophy of Geography.
- Appreciate the contribution of the thinkers in Geography.
- Give power point presentations on different schools of geographical thought.
- Discussing the evolution of geographical thought from ancient to modern times.
- Establishing relationship of Geography with other disciplines and man environment relationships.
- Analyzing modern and contemporary principles of Empiricism, Positivism, Structuralism, Human and Behavioural Approaches in Geography.
- Build an idea about the dichotomous nature of Geography.
- Develop an idea about evolution of geographical thinking and disciplinary trends in Germany, France, Britain, and United States of America.
- Know about the trends of geographical thoughts under different eras.

C14T&P: Disaster Management (GEOHCC14)

- Students would be aware of concept of disaster and its relationship with Geography.
- Classify various types of disasters.
- Understand terminology and concepts used in Disaster Management.
- Elaborate structural and non-structural measures used in Disaster Management.
- Discuss causes, effects of disasters and locate areas on the map.

- Differentiate global issues and describe their causes, effects and remedies.
- To study about the different hazard study with focus on India.
- Familiarizing students to prepare and submit a project report based on different topics provided to them on any one case study of disasters of West Bengal incorporating a preparedness plan.

DSE3T: Soil and Biogeography (GEOHDSE03)

- Have knowledge about the character and profile of different soil types.
- Understand the impact of man as an active agent of soil transformation, erosion and degradation.
- Recognize land capability and classify it.
- Explaining the Pedological and Edaphological Approaches to Soil Studies - Processes of soil formation, types of soil, and principles of soil and land classification; and management.
- Understand the varied ecosystems and classify them.
- Recognize the significance of biogeochemical cycles and biodiversity.
- Comprehend the devastating impact of deforestation.
- Identify soil types and derive their pH.
- Students should know the concept, need and methods of soil management.

DSE4T: Urban Geography (GEOHDSE04)

- This section aims at the nature and scope of urban geography and also indicates the recent trends of urban geography.
- Theories of urban evolution and growth, rank size rule, concept of Primate city are explained here to give the idea of urban theories.
- Concept of urban hierarchy like central place theory, August Losch theory also included here.
- Various urban polices, urban issues like slums, civic amenities, urban landscape are also discussed here with special reference to India.
- Some urban case studies are also highlighted like Delhi, Kolkata, Chandigarh with reference to land use.

Subject – Geography (General)

Semester – I (CCFUP), 2023 & NEP, 2020)

GEOPMJ01T: Fundamentals of Earth System Science

- The students will be familiar with the Earth system and Internal Structure of Earth based on Seismic Evidence.
- Develop the concrete idea about Heat Balance, Global Circulation Pattern, Tropical Cyclones, Monsoon, Climatic Classification (Koppen).
- Development of idea regarding plate tectonics, Landscape evolution of Davis and Penck.
- Emphasis on the concept of Hydrological Cycle, Ocean Bottom Relief Features, Tides and Currents.

SEC 1: Computer Basics and Applications

- To get an overview of the computer system and its applications.
- Get an working knowledge of computer hardware and software.
- Get an idea of managing folders and files.
- Run an application, preferably, MS Word, MS Excel, MS PowerPoint.
- Representation and computation of data using statistical techniques.

Semester – II (CCFUP), 2023 & NEP, 2020)

GEOPMJ02T: Human Geography

- Gain knowledge about major themes of human Geography.
- Build an idea about rural and urban settlements.

SEC 2: Coastal Management

- Understanding the various components and coastal morphodynamic variables.
- Identifying the different environmental impacts and management of anthropogenic interventions.
- Analyze the policies of coastal zone management, focusing on EEZ, ICZM and CRZ.
- Assessing coastal hazards and its management.

Semester – III (CBCS)

DSC – 1CT&P (CC03): Maps and Diagrams

- Gain knowledge about types, elements and uses of maps.
- Develop an idea about scale and draw different types of scale like linear, comparative and their importance in the cartography.
- Acquire knowledge about different types of map projections and their utility in constructing the various types of map, different techniques of cartograms.
- Build an idea about Prismatic compass and Levelling Surveying.

SEC-1T: Remote Sensing

- Have the knowledge of the principles of remote sensing, sensor resolutions and Principles of preparing Standard False Colour Composites (SFCC).
- To prepare inventories of land use land cover (LULC) features from satellite images.

Semester: IV

DSC-1DT (CC-04): Environmental Geography

- Gain knowledge about concept, approaches of environmental geography and components of environment.
- Develop an idea about human-environment relationships.
- Learn about Environmental Problems and Management, Environmental Programmes and Policies, New Environmental Policy of India; Government Initiatives.

SEC-2T: Regional Planning and Development

- To acquire knowledge about the concept of regional planning and development, their utilisation in different fields of geography.
- Build an idea about theories and models for regional development and their utility in today's world.
- Emphasis on Backward Regions and Regional Plans in India.

Semester: V

DSE- 1T: Geography of India

- The objective of the course is to understand India in terms of physical setting like Location, Structure and Relief, Drainage, Climate.
- In depth knowledge of livestock, power, mineral, agriculture, industries and modes of transportation in India.
- Student shall learn about population size and growth since 1901, Population Distribution, Literacy, Sex Ratio, Types and Patterns of rural and urban settlement system.

SEC- 3T: Remote Sensing and GPS based Project Report

- Understand the basic concept of Remote sensing & GIS.
- This course shall enable the students to understand the EMR Interaction with Atmosphere and Earth Surface, Sensor resolutions and their applications with reference to IRS.
- To prepare inventories of land use land cover (LULC) features from satellite images.
- Gain knowledge about the principles and uses of GPS.

Semester: VI

DSE-2T: Population Geography

- Students able to understand the fundamental Concepts related to Population such as distribution, density, growth, population composition, fertility & mortality etc.
- Understand the various factors responsible for World Population growth and Distribution.
- Student shall learn about the demographic transition models, causes and types of migration .

- Address a variety of contemporary issues related to rapid urbanization.

SEC- 4: Field Techniques and Survey based Project Report

- Students able to understand fundamental concepts and issues related to field work in geographical studies.
- Know about different types of field techniques and tools.
- The outcome of this syllabus will be to prepare a field report based on primary data and secondary data collected during field work.
