

**Department of Geography
Modern College, Imphal
Government of Manipur**

PROGRAMME OUTCOMES:

- To understand the evolution and scope of Geography as an integrative discipline and systematic branch of knowledge.
- To recognize the diverse source of knowledge, arguments and approaches pertinent to the study of man-land relationship.
- To associate the spatial perspective to the study of physical and human activities over the earth's surface.
- To identify various phenomena occurring on the earth's surface and provide them with scientific and logical explanation thereof.
- To equip the students with the ability to respond to natural and man-made disasters and acquire management skills by studying and analyzing hazards, disasters and their impact as envisaged in the curriculum.
- To enable students to undertake research in interdisciplinary studies and problems or issues relating to human and physical phenomena which comes under the purview of geography.

PROGRAMME SPECIFIC OUTCOMES:

Students will be able to; -

- Explain the fundamental concepts of Geography incorporated in the syllabus by gathering knowledge about geomorphology, climatology, oceanography, economic activities, demographic dynamics, regional development and planning etc.
- Acquire holistic knowledge and skills necessary for better analyzing various landform development, climate change, tectonic activities and anthropogeographical events around the globe.
- Associate different type of landforms with structure and process; establish man-environment relationships; and explore the place and role of Geography vis-a-vis other social and earth sciences.
- Correlate the knowledge of physical geography with the human geography. They will analyze the problems of physical as well as cultural environments of both rural and urban areas.
- Develop a sustainable approach towards the ecosystem and the biosphere with a view to conserve natural environment and maintain ecological equilibrium of which the physical environment, human societies and global economic systems are integrated to the principles of sustainable development.

- Explain and analyze the regional diversity of India through interpretation of natural and planning regions. Inculcate a tolerant mindset and attitude towards the vast socio-cultural diversity of India by studying and discussing contemporary concepts of social and cultural geography.
- Describe the type and pattern of human habitation on the earth's surface and explain their differences in terms of physical or socio-economic parameters like topography, population dynamics, poverty etc.
- Discuss the historical evolution of Geography as a discipline in relation to modern theoretical concepts of empiricism, positivism, radicalism, behaviouralism, idealism, determinism, possibilism etc.
- Identify socio-economic problems of their community through field experience envisaged in the curriculum by applying statistical and cartographic techniques, GIS and remote sensing process, interpretation of maps and satellite images. The study of the diverse environments, places, and spaces of Earth's surface and their interactions.

COURSE AND PROGRAM OUTCOME:

Geography is the discipline that concerns with the descriptions of earth's surface and studies inter-relationships between human beings and natural environment.

Geography seeks to understand where things are found, why they are there, and how they develop and change over time. Geographers explore both physical and human phenomena on the earth's surface. They also examine how human culture interacts with the natural environment and the way those locations and places can have an impact on people inhabiting it. It is a spatial science in its attempt to study earth's surface by taking into account the spatial linkages of different physical and cultural landscapes across geographical space.

COURSE OUTCOME

The course outcomes of the different papers are listed below. After completion of the course the student will be able to:

1st SEMESTER: (GG: E101 - INTRODUCTION TO GEOGRAPHY)

- Understand the nature of geography, its emergence as a discipline.
- Appreciate the contributions of various Geographer belonging to Greek, Arab, German, French, etc.
- Establish relationship of Geography with other disciplines and man-environment relationships.
- Critically examine Geography as human ecology; Areal differentiation and spatial organization; concept of macro, meso and micro region.
- Recognize the importance and uses of Geographical information system (GIS) in present cartographic and mapping system.

2nd SEMESTER: (GG: E202 - PHYSICAL GEOGRAPHY)

- Familiar with solar system and origin of earth along with the process of earthquakes, volcanoes and major landforms.
- Understand the concept of cycle of erosion and its agents such as air, wind and water with their corresponding landscape like karst topography and coastal regions.
- Develop an idea about the elements of weather and climate, composition and structure of atmosphere, insolation, heat budget and temperature distribution.
- Learn about the origin of cyclone and anticyclones, and distinguish climatic types and associated natural regions.
- Classify wind types and their physical and socio-economic significance over the earth's surface.
- Familiarize with the formation of atmospheric pressure and their role in meteorological events.
- Explore the configuration of ocean floor, ocean currents, marine deposits, corals and atolls. Distribution of temperature and salinity in the ocean will be discussed.
-

3RD SEMESTER: {GG: E303 (i) – HUMAN GEOGRAPHY}

- Understand the nature and scope of human geography its branches and approaches.
- Learn division of mankind- spatial distribution of racial and linguistic groups. Adaptation to different environment like Eskimo in cold region and Bushman in hot region and mountain dwellers etc.
- Differentiate economic activities of human beings from primitive to modern society; hunting, fishing and food gathering to industry, transport and agriculture practices around the world.

3RD SEMESTER: {GG: E303 (ii) – CARTOGRAPHY-I}

- Develop practical skills related to scale such as linear, diagonal and comparative.
- Identify different type of rocks and minerals.
- Prepare maps of different landforms by applying different techniques such as hachures, shading, contours, layer tints etc.
- Draw different types of profiles viz. cross and long profiles, superimposed, projected and composite profiles and assert their relevance in landform mapping and analysis.
- Apply statistical techniques, bar graph, climograph, hythergraphs to interpret weather maps.
- Read meteorological instruments like wet & dry thermometers, rain-gauge, barometer, wind vane and anemometer.

4TH SEMESTER: {GG: E404 (i) POPULATION AND SETTLEMENT GEOGRAPHY}

- Conceptualize population and its dynamics- density, growth, distribution, composition, age and sex ratio, rural and urban settlement.
- Discuss demographic aspects of fertility and mortality with reference to India.
- Learn world population trend from ancient to modern day and identify regions of low, medium and high density.

4TH SEMESTER: {GG: E404 (ii) CARTOGRAPHY-II}

- Familiar with cartographic symbols and their uses, point dots, proportional circles and spheres, isopleths and flow line and choropleth.
- Learn the use of line and bar graphs for representing population, agriculture, industry and transport data. Statistical techniques like mean, median, mode, standard deviation, correlation coefficient.
- Know how to represent population distribution, density and growth, land use, cropping pattern, industries and transport by cartographic techniques.
- Interpret Survey of India (SOI) toposheets of an area with respect to relief, drainage, settlement and communication pattern.

5th SEMESTER: (GG: H505 - GEOMORPHOLOGY)

- Understand the nature and scope of geomorphology in relation to other branches of earth sciences.
- Know the concepts of Wegener's theory of continental drift, plate tectonics, orogenic and epeirogenesis, type of folds and faults, isostasy, earthquakes and volcanoes.
- Identify various rock types and learn their formation and economic importance.
- Discuss geomorphic agents and processes, evolution of various landscapes, cycle of erosion, fluvial, arid, glacier and coastal landscapes.
- Appraise applied geomorphology for settlements, transport, land-use, mining, resource evaluation, environmental assessment etc.

5th SEMESTER: (GG: H506 - GEOGRAPHY OF INDIA)

- Understand India in the context of south and south east Asia.
- Explore India as a land of unity in diversity in terms of relief structure, climate, vegetation, natural regions etc.
- Locate the distribution of iron and steel industries, textiles, petrochemical, cement and forest-based industries.
- Transport and communication, trade and commerce basis of regional division of India into macro, meso and micro regions.
- North-East India with respect to its physical and human characteristics.
- Understand the relief structure, drainage, climate, soils, minerals resources bestowed upon Manipur state alongside with its population milieu.

5th SEMESTER: (GG: H506 P – CARTOGRAPHY-III)

- Prepare cross and longitudinal profiles of streams, average slope map, block diagram, area height curve, hypsometric curve and drainage frequency and density map.
- Interpret geological maps and draw geological sections to show the sequence and relationships of structure with relief.
- Learn basic principles of land surveying- chain and tape, prismatic compass and plane table survey by applying methods like radiation, intersection and three-point problem.
- Draw graticules of different map projections viz. zenithal orthographic, stereographic, equal-area and equidistant projections, conical projection and cylindrical projections like Mercator's projection etc.

6th SEMESTER: (GG:H608 ECONOMIC GEOGRAPHY)

- Define economic geography its nature and scope and relations with economics and other allied subjects.
- Recognize different type of natural resources viz. renewable and non-renewable, biotic and abiotic, conservation of resources, minerals and industries, and determine factors of localization of industries- iron and steel, textiles, chemicals, cement, paper, ship building small scale and cottage industries.
- Study trade and transport and relate geographical factors in their development and examine internal and international trade across the globe.
- Assess global distribution and concentration of economic activities and India's position in quaternary activities and disparity between develop and developing countries.
- Analyze the impact of globalization on Indian economy, role of multinational companies and rise of IT industry in our country.

6th SEMESTER: (GG:H609- WORLD REGIONAL GEOGRAPHY)

- Examine regional studies of south and south-east Asia with special reference to Asia- physiographic divisions, drainage pattern, climate, natural vegetation, soil and spatial distribution of population and economic activities.
- Develop an understanding of European Union while studying geography of Europe and British Isles.
- Describe the physical, economic and demographic set up of North and South America and discuss regional studies of U.S.A and Brazil, Australia and New Zealand with some specific islands- physical, economic and demographic set up including Africa- physical, economic and demographic set up.

6th SEMESTER: (GG: H610 P – CARTOGRAPHY-IV)

- Conduct dumpy level for preparation of road profile and contouring and measure heights and distances by the use of theodolite.
- Extract information from aerial photographs under mirror stereoscope, determine photo scale, identify objects, prepare base maps from areal photographs, visual interpretation of satellite imagery for drainage and land use mapping and also learn basic concepts of GIS and GPS.
- Carry out field work or survey of an area with the help of topo sheets or satellite image. Physically identify the areas in terms of landforms, settlement, land use features and draw sketches or maps of the selected area and prepare field report.

GG: G607 (i)

Regional Geography of India

Unit I: India in the context of South and Southeast Asia; structure and relief, drainage, climate and vegetation, population characteristics, agriculture, location and types of industries, mineral and power resources.

Examine regional studies of south and south-east Asia with special reference to Asia-physiographic divisions, drainage pattern, climate, natural vegetation, soil and spatial distribution of population and economic activities.

Unit II: North East India: structure and relief, climate, natural vegetation, resource utilization of forest, agriculture, mineral, power, population, tribes and settlement pattern of rural and urban.

North-East India with respect to its physical and human characteristics.

Understand the relief structure, drainage, climate, soils, minerals resources bestowed upon North East India states alongside with its population milieu.

Unit III: Manipur: Relief features, climate, soil and natural vegetation, agriculture, forest, power, transport, minerals, population, rural and urban and settlement.

- Understand the relief structure, drainage, climate, soils, minerals resources bestowed upon Manipur state alongside with its population milieu.

GG: G507(P) Cartography – IV

Unit I: Surveying: Chain and tape, plane table, prismatic compass

Learn basic principles of land surveying- chain and tape, prismatic compass and plane table survey by applying methods like radiation, intersection and three-point problem.

Unit II: Field Survey reports based on collected data from the field by the student under the guidance of teacher.

Carry out field work or survey of an area with the help of topo sheets or satellite image. Physically identify the areas in terms of landforms, settlement, land use features and draw sketches or maps of the selected area and prepare field report.

Unit III: Record Book and Viva-voce

B.A./B.S. 5th Semester GEOGRAPHY (GENERAL)

GG: G505 (i)

Geomorphology

Unit I: Nature and Scope of geomorphology, development of Geomorphic idea, approaches to the study of geomorphology; Theories of continental drift, isostasy, tetrahedral and plate tectonic.

Understand the nature and scope of geomorphology in relation to other branches of earth sciences.

Know the concepts of Wegener's theory of continental drift, plate tectonics, orogenic and epeirogenesis, type of folds and faults, isostasy, earthquakes and volcanoes.

Unit II: Exogenic processes: concept of gradation, agent and processes of gradation; mountain building, classification of mountains; Geomorphic cycle, interruption and movement base level and its expression in landforms development.

Discuss geomorphic agents and processes, evolution of various landscapes, cycle of erosion, fluvial, arid, glacier and coastal landscapes.

Unit III: Hydrological cycle, runoff evaporation and percolation, water table and underground water; drainage system and patterns.

Understand the concept of cycle of erosion and its agents such as air, wind and water with their corresponding landscape like karst topography and coastal regions.

B.A./B.S. 5th Semester GEOGRAPHY (GENERAL)

GG: G506 (ii)

Cartography – III

Unit I: Preparation of drainage frequency and density map; interpretation of conformity and unconformity geological map by drawing of geological section.

Prepare cross and longitudinal profiles of streams, average slope map, block diagram, area height curve, hypsometric curve and drainage frequency and density map. Interpret geological maps and draw geological sections to show the sequence and relationships of structure with relief.

Unit II: Map projection: Draw graticules on the following projections by graphical/mathematical methods with suitable outline maps with their properties and uses.

Draw graticules of different map projections viz. zenithal orthographic, stereographic, equal-area and equidistant projections, conical projection and cylindrical projections like Mercator's projection etc.

Unit III: Record Book and viva-voce