Course Outcomes, Programme Outcomes and Programme Specific Outcomes for Four Years Under Graduate Programme (FYUGP) in Geography

(MINOR & DSC)

Programme Name: Four Years Under Graduate Programme (FYUGP) B.A in Geography

W.E.F: ACADEMIC SESSION 2024-25

Department of Geography

Rajganj College

Rajganj, Jalpaiguri

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Rajganj College

Department of Geography

COURSE OUTCOMES

PAPER: MINOR
Paper Description: GEOMORPHOLOGY
Paper Code: GEOGMIN101
Paper Type: Theory & Practical Lab Based

The following learning outcomes of this paper are:

- Explain the nature and scope of geomorphology, the internal structure of the Earth, and major theories such as Continental Drift, Plate Tectonics, and the formation of folds and faults.
- Analyze the types of weathering, factors influencing mass wasting, and their impact on landform development.
- Classify drainage systems and drainage patterns and evaluate theories of erosion and slope development proposed by Davis and Penck.
- Assess the formation of erosional and depositional landforms shaped by fluvial, aeolian, glacial, and karst processes.
- Develop skills in map scale construction, understanding different types of scales, and constructing various map projections, including Polar Zenithal Gnomonic, Simple Conical, and Cylindrical Equal Area projections.
- Students will grasp the concept of resources, their formation, and the key factors influencing their availability and utilization. They will also learn to classify resources using different criteria, fostering a comprehensive understanding of their diversity.
- They will explore the spatial distribution of various resources in India, including forests, coal, iron ore, petroleum, atomic minerals, and renewable energy sources like solar, wind, and hydropower. Additionally, they will examine the geographic and socio-economic factors shaping resource availability in the country.

- Students will gain insights into resource conservation strategies, focusing on forests, soil, water, minerals, and energy resources. They will understand ecological, economic, and cultural approaches to sustainable resource management.
- Students will develop practical skills in identifying a variety of rocks and minerals, such as granite, gneiss, basalt, limestone, marble, shale, and sandstone—essential for careers in geology, environmental science, and resource management.
- They will refine their ability to present and visualize data using diagrammatic techniques such as chorochromatic maps, dot and sphere plots, choropleth maps, proportional squares, and cubes—key tools for effectively communicating resource-related information.
- Competency in assessing resource availability and distribution, particularly in India, will be strengthened. Students will analyze factors influencing resource accessibility and propose strategic management solutions.
- They will cultivate advocacy skills for resource conservation, applying ecological, economic, and ethnological perspectives to address real-world challenges. This will prepare them to contribute to sustainable resource use and environmental protection efforts.
- Proficiency in data analysis and visual communication will be enhanced, allowing students to effectively present resource-related insights to diverse audiences. These skills will support informed decision-making and policy development in the field of resource management.

PAPER: DSC
Paper Description: GEOMORPHOLOGY
Paper Code: GEOGDSC101
Paper Type: Theory & Practical Lab Based

After completion, the students would develop the following knowledge:

- Develop a strong understanding of the fundamental principles of geomorphology, including key theories such as Continental Drift and Plate Tectonics, along with the internal structure of the Earth.

- Analyze the processes of weathering and mass wasting, exploring their types, influencing factors, and role in shaping various landforms.
- Gain hands-on experience in identifying diverse rock and mineral types, including granite, gneiss, basalt, limestone, marble, shale, and sandstone—crucial for careers in geology, environmental science, and resource management.
- Examine the evolution of landforms through different geomorphic processes, including fluvial, aeolian, glacial, and karst activities, to understand landscape development.
- Acquire proficiency in constructing different types of scales, such as linear, comparative, and diagonal scales, essential for cartographic representation.
- Develop technical expertise in creating various map projections, including Polar Zenithal Gnomonic, Simple Conical, and Cylindrical Equal Area projections, for spatial analysis.
- Apply geomorphological theories to practical map interpretation, bridging conceptual knowledge with real-world topographical data.
- Integrate and analyze geomorphological data to generate comprehensive insights into landform evolution and landscape dynamics.
- Utilize theoretical and practical geomorphological techniques to solve real-world problems, enhancing skills in landscape analysis and interpretation.
- Students will develop practical skills in identifying a variety of rocks and minerals, such as granite, gneiss, basalt, limestone, marble, shale, and sandstone—essential for careers in geology, environmental science, and resource management.
- They will refine their ability to present and visualize data using diagrammatic techniques such as chorochromatic maps, dot and sphere plots, choropleth maps, proportional squares, and cubes—key tools for effectively communicating resource-related information.
- Competency in assessing resource availability and distribution, particularly in India, will be strengthened. Students will analyze factors influencing resource accessibility and propose strategic management solutions.
- Proficiency in data analysis and visual communication will be enhanced, allowing students to effectively present resource-related insights to diverse audiences. These skills will support informed decision-making and policy development in the field of resource management.

PAPER: MINOR
Paper Description: SETTLEMENT GEOGRAPHY
Paper Code: GEOGMIN202
Paper Type: Theory & Practical Lab Based

After completion, the learning outcomes of this particular paper are the followings:

- Develop a thorough understanding of settlement geography, including its scope, the distinction between site and situation, and the classification of settlements based on size, population, and function. Students will analyze settlement hierarchies from hamlets to megalopolises, along with different types and patterns of rural settlements.
- Examine the rapid urbanization in India and its consequences, such as the expansion of slums and the strain on infrastructure. Students will study urban growth trends, the rise of megacities, and the challenges associated with urban sprawl.
- Gain insights into urban land use models, including the Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory, and Central Place Theory by Christaller. Students will critically assess settlement structures and understand the factors shaping human habitation, including the concept of primate cities and the rank-size rule.
- Enhance skills in diagrammatic data presentation using line graphs, bar graphs, and proportional circles, enabling students to effectively interpret statistical information and present it in clear visual formats.
- Develop proficiency in mapping techniques to represent and analyze geographical data spatially, fostering a deeper understanding of regional distributions and settlement patterns.
- Strengthen analytical abilities to critically evaluate settlement patterns and identify key forces influencing human habitats.
- Gain a holistic understanding of the challenges faced by both rural and urban areas, recognizing their interconnectedness and the need for tailored yet complementary solutions to address development issues.
- Build essential skills in creating and interpreting graphical and spatial data, which are fundamental tools in geography for effectively communicating complex information.

PAPER: DSC
Paper Description: SETTLEMENT GEOGRAPHY
Paper Code: GEOGDSC202
Paper Type: Theory & Practical Lab Based

After completion, the learning outcomes of this particular paper are the followings:

- Gain a comprehensive understanding of settlement geography, including its scope and the distinction between site and situation. Students will classify settlements based on size, population, and function, exploring settlement hierarchies from hamlets to megalopolises and identifying various types and patterns of rural settlements.
- Analyze the rapid pace of urbanization in India and its socio-economic consequences, such as the proliferation of slums and increasing pressure on infrastructure. Students will examine urban expansion, the emergence of megacities, and the challenges associated with urban sprawl.
- Develop insights into urban land use models, including the Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory, and Central Place Theory by W. Christaller, along with the concepts of primate cities and the rank-size rule. This will enable students to critically assess settlement structures and the forces shaping urban and rural habitats.
- Enhance proficiency in statistical data representation through visual tools such as line graphs, bar graphs, and proportional circles, facilitating clear and effective data interpretation essential for geographical and general data analysis.
- Strengthen spatial analysis skills through mapping techniques, allowing students to visually represent and interpret geographical data, thereby improving their understanding of spatial distributions and settlement dynamics.
- Cultivate the ability to critically evaluate settlement patterns and identify the key factors influencing human habitation and spatial organization.
- Gain a deep understanding of the challenges unique to rural and urban areas, while recognizing their interdependence. Students will explore how urban growth impacts rural communities and how both require distinct yet interconnected solutions for sustainable development.
- Develop essential skills in creating and interpreting graphical and spatial data, which are fundamental in geography for effectively communicating complex information and supporting decision-making processes.

- Understand the role of urban and rural planning policies in shaping settlements, with a focus on sustainable development, infrastructure management, and land-use regulations.
- Examine how human settlements influence and interact with the environment, including resource consumption, pollution, and climate change, while exploring strategies for sustainable urban and rural development.

PAPER: MINOR
Paper Description: CLIMATOLOGY
Paper Code: GEOGMIN303
Paper Type: Theory & Practical Lab Based

Under this Skill Enhancement Course, the outcomes are the followings:

- Studying atmospheric composition, heat budget, and temperature distribution will enable students to understand how these processes sustain Earth's energy balance, shaping global temperatures and influencing climate.
- Familiarity with pressure belts, global and local wind systems, geostrophic winds, jet streams, El Niño, and La Niña will deepen students' comprehension of atmospheric dynamics and large-scale climatic phenomena. This knowledge equips them to analyze weather and climate systems and apply their insights to environmental challenges.
- By using instruments such as hygrometers, students will learn to measure and interpret different forms of humidity, developing practical skills in assessing atmospheric moisture and its role in weather patterns.
- Students will gain proficiency in interpreting relative relief maps, which illustrate elevation variations within a region. This understanding enhances their grasp of terrain types and the influence of elevation on drainage, vegetation, and human settlements.
- Learning to construct transect charts will provide students with a cross-sectional view of landscapes, helping them visualize the spatial distribution of physical and cultural features.
- Developing the ability to critically analyze and interpret real-world topography enables students to break down complex geographical data into simpler components, allowing them to mentally reconstruct three-dimensional landscapes from two-dimensional maps.

- Strengthening analytical reasoning by applying theoretical knowledge of Köppen's climatic classification to real-world contexts will bridge the gap between scientific concepts and practical understanding.
- Develop the ability to interpret and represent weather and climate patterns using Climographs and Hythergraphs, enhancing understanding of temperature and precipitation relationships.
- Gain proficiency in analyzing physical and cultural features of topographical maps, particularly in plateau and mountainous regions, for geographic and environmental assessments.
- Learn to interpret terrain using serial, superimposed, projected, and composite profiles, facilitating a deeper understanding of landscape evolution and geomorphological processes.
- Develop skills in drawing and analyzing relative relief maps and transect charts, enabling accurate spatial visualization of elevation and landform distribution.

PAPER: DSC
Paper Description: CLIMATOLOGY
Paper Code: GEOGDSC303
Paper Type: Theory & Practical Lab Based

Under this Skill Enhancement Course, the outcomes are the followings:

- Exploring atmospheric composition, heat budget, and temperature distribution will enable students to understand how these factors regulate Earth's energy balance, influencing global temperatures and climate patterns.
- Understanding pressure belts, global and local wind systems, geostrophic winds, jet streams, El Niño, and La Niña will provide deeper insights into atmospheric dynamics and large-scale climate phenomena. This knowledge equips students to analyze weather patterns and climate systems and apply their findings to environmental issues.
- By using instruments such as hygrometers, students will develop the ability to measure and interpret different forms of humidity, enhancing their practical skills in assessing atmospheric moisture and its impact on weather conditions.
- Students will gain expertise in interpreting relative relief maps, which depict variations in elevation within a region. This understanding will help them analyze terrain types and evaluate the influence of elevation on drainage patterns, vegetation, and human settlements.

- Mastering the construction of transect charts will enable students to create cross-sectional representations of landscapes, aiding in the visualization of the spatial distribution of physical and cultural features.
- Developing the ability to critically analyze and interpret real-world topography will allow students to break down complex geographical data, facilitating the mental reconstruction of three-dimensional landscapes from two-dimensional maps.
- Strengthening analytical reasoning through the application of Köppen's climatic classification to real-world contexts will help bridge the gap between theoretical concepts and practical understanding.
- Develop skills in representing and analyzing weather and climate patterns using Climographs and Hythergraphs to understand temperature and precipitation variations.
- Gain expertise in interpreting physical and cultural features of topographical maps, particularly in plateau and mountainous regions, for geographic and environmental studies.
- Learn to analyze terrain using serial, superimposed, projected, and composite profiles, enhancing comprehension of topographic variations and landscape evolution.
- Acquire proficiency in drawing and interpreting relative relief maps and transect charts, facilitating accurate spatial analysis of elevation and landform distribution.

PAPER: MINOR
Paper Description: ECONOMIC GEOGRAPHY
Paper Code: GEOGMIN404
Paper Type: Theory & Practical Lab Based

After completion, the students would develop the following knowledge:

- Develop a strong understanding of economic geography, including its scope, classification of economic activities, resource definitions, and key economic theories such as Von Thünen's Agricultural Theory and Weber & Lösch's Industrial Theories.
- Gain in-depth knowledge of the growth conditions and global distribution of key crops like wheat, rice, cotton, tea, and coffee, as well as major fishing grounds and the characteristics of lumbering in tropical and temperate forests.

- Explore the production and worldwide distribution of the iron-steel, cotton textile, and paper industries, along with an understanding of transport modes, geographical factors influencing transport development, and elements affecting international trade.
- Acquire the ability to systematically organize data through frequency distribution tables, histograms, frequency polygons, frequency curves, and cumulative frequency distributions.
- Develop proficiency in statistical measures such as mean, median, mode, range, mean deviation, variance, standard deviation, and the coefficient of variation.
- Enhance analytical skills in measures of inequality and traffic flow diagram interpretation.
- Attain expertise in critically analyzing economic geography and understanding economic theories.
- Strengthen knowledge of global agricultural production, fishing grounds, and industrial distribution, fostering a comprehensive grasp of economic patterns.
- Develop an understanding of transport systems, geographical influences on transport development, and factors shaping international trade.
- Gain hands-on experience in organizing and analyzing data, enhancing practical competencies for economic geography applications.
- Develop the ability to systematically organize data using frequency distribution tables, histograms, frequency polygons, frequency curves, and cumulative frequency distributions for effective data representation.
- Gain proficiency in calculating and interpreting measures of central tendency (mean, median, and mode) and partition values (quartiles, deciles, and percentiles) to analyze data distributions.
- Acquire skills in measuring and interpreting dispersion through range, mean deviation, variance, standard deviation, and coefficient of variation, enabling a deeper understanding of data spread and consistency.

PAPER: DSC
Paper Description: ECONOMIC GEOGRAPHY
Paper Code: GEOGDSC404
Paper Type: Theory & Practical Lab Based

After completion, the students would develop the following knowledge:

- Gain a comprehensive understanding of the nature and scope of economic geography, including the concept and classification of economic activities, resource definition and categorization, and key economic theories such as Von Thünen's Agricultural Theory and the Industrial Theories of Weber and Lösch.
- Develop in-depth knowledge of the factors influencing the growth and global distribution of major crops such as wheat, rice, cotton, tea, and coffee, along with insights into the world's primary fishing grounds and the characteristics of lumbering in tropical and temperate forests.
- Explore the production and global distribution of the iron-steel, cotton textile, and paper industries, as well as the various modes of transport, geographical factors influencing transport development, and key determinants of international trade.
- Acquire proficiency in organizing and representing data through frequency distribution tables, histograms, frequency polygons, frequency curves, and cumulative frequency distributions, along with the ability to calculate measures of central tendency (mean, median, and mode).
- Develop expertise in statistical measures of dispersion, including range, mean deviation, variance, standard deviation, and coefficient of variation, as well as the ability to analyze measures of inequality and interpret traffic flow diagrams.
- Attain the ability to critically analyze economic geography and interpret key economic theories effectively.
- Enhance knowledge of agricultural production, major fishing grounds, and industrial distribution, making students more proficient in understanding global economic patterns.
- Develop a strong grasp of transport systems, geographical factors influencing transport development, and the various elements that affect international trade.
- Strengthen practical skills through exercises that enable students to efficiently organize, analyze, and interpret data.
- Develop the ability to organize and present data effectively using frequency distribution tables, histograms, frequency polygons, frequency curves, and cumulative frequency distributions for comprehensive data analysis.

- Gain expertise in calculating and interpreting measures of central tendency (mean, median, and mode) and partition values (quartiles, deciles, and percentiles) to summarize and analyze data sets.
- Acquire analytical skills in measures of dispersion, including range, mean deviation, variance, standard deviation, and coefficient of variation, to assess data spread and consistency.

PAPER: MINOR
Paper Description: POPULATION GEOGRAPHY
Paper Code: GEOGMIN505
Paper Type: Theory & Practical Lab Based

After completion, the students would develop the following knowledge:

- Develop a strong understanding of the nature and scope of population geography, its connection to demography, and key concepts such as over-population, under-population, optimal population, population explosion, population density, and the man-land ratio.
- Gain detailed insights into population growth and its spatial distribution across India, including the identification of high and low-density areas, theories of population growth, and the racial and religious composition of the country.
- Obtain a comprehensive understanding of India's population trends, including policies and measures addressing population growth, along with the impact of migration, mortality, and fertility on population size and distribution.
- Develop the ability to evaluate social well-being, health trends, and population growth patterns by interpreting measures of mortality and fertility.
- Acquire proficiency in visually organizing demographic data by constructing age-sex pyramids, analyzing their different forms, and understanding their implications for birth rates, aging populations, and population decline.
- Enhance analytical skills in assessing movement patterns through flow diagrams, gaining insights into traffic and migration trends and their real-world implications.
- Strengthen the ability to critically analyze population geography and comprehend India's population distribution and growth patterns.

- Enhance students' competence in understanding the push and pull factors of migration and applying Lee's Laws of Migration to real-world scenarios, considering factors such as intervening obstacles and personal motivations.
- Develop the ability to calculate and interpret key demographic indicators, including crude birth rate, general fertility rate, age-specific fertility rate, total fertility rate, crude death rate, age-specific death rate, and infant mortality rate, to assess population dynamics.
- Gain proficiency in constructing and interpreting age-sex pyramids to analyze population structures, identify demographic trends, and understand their socio-economic implications.
- Develop skills in creating and interpreting flow diagrams to study traffic and migration trends, enabling students to assess mobility patterns, urban congestion, and population movements across regions.
- Develop practical skills in analyzing traffic flow graphs to understand key elements like peak travel hours, road congestion, and the movement of goods and services across regions.

PAPER: DSC
Paper Description: POPULATION GEOGRAPHY
Paper Code: GEOGDSC505
Paper Type: Theory & Practical Lab Based

After completion, the students would develop the following knowledge:

- Develop a clear understanding of the nature and scope of population geography and its relationship with demography, along with key concepts such as population density and the man-land ratio.
- Gain insights into the determinants and patterns of population growth and distribution in India, enabling a better understanding of regional population variations.
- Develop a strong foundation in population growth theories, including the Malthusian Theory and Demographic Transition Theory, and their relevance to real-world demographic trends.
- Understand the racial and religious composition of India's population and analyze its implications for socio-economic and cultural dynamics.

- Learn to calculate and interpret key fertility measures (crude birth rate, general fertility rate, age-specific fertility rate, and total fertility rate) and mortality indicators (crude death rate, age-specific death rate, and infant mortality rate).
- Assessing migration patterns; Study the types, causes, and consequences of migration, gaining an in-depth understanding of how population movements shape regional demographics.
- Develop the ability to analyze migration patterns using Lee's Laws of Migration and assess factors such as push and pull influences and intervening obstacles.
- Examine India's National Population Policy (2000) and its role in managing population growth, improving healthcare, and addressing demographic challenges.
- Gain proficiency in visually representing population structures through age-sex pyramids and understanding demographic trends like aging populations and high birth rates.
- Develop skills in constructing and interpreting flow diagrams to study traffic and migration trends, enabling better analysis of urban congestion and population movements.

Paper: DSC
Paper Description: ENVIRONMENTAL GEOGRAPHY
Paper Code: GEOGDSC506
Paper Type: Theory & Practical Lab Based

Under this Skill Enhancement Course, the outcomes are the followings:

- Gain a comprehensive understanding of the definition and components of the environment, sources and effects of air and water pollution, and strategies for pollution control and environmental conservation.
- Examine the impact of agricultural and industrial development, urbanization, and solid waste generation on environmental degradation, along with waste management strategies.
- Develop an understanding of the meaning, importance, and need for Environmental Impact Assessment (EIA) and gain knowledge of key environmental movements in India, such as the Chipko Movement and Narmada Bachao Andolan.
- Study major environmental laws and policies in India, including the Water (Prevention and Control of Pollution) Act (1974), Air (Prevention and Control of Pollution) Act (1981), and Municipal Solid Waste (Management and Handling) Rules (2000).

- Learn the concept of sustainable development, issues such as deforestation and soil erosion, and global initiatives like the Earth Summit (Rio 1992).
- Develop skills to measure economic inequality using Lorenz curves and Gini's coefficient, helping analyze income disparities and socio-economic imbalances.
- Gain proficiency in the graphical representation of data through box plots, scatter plots, and band graphs, enhancing the ability to analyze and interpret statistical trends.
- Understand practical approaches to achieving sustainability in economic and environmental contexts, linking policy measures with real-world applications.
- Develop the ability to assess and implement effective waste management techniques for solid waste, focusing on reduction, recycling, and responsible disposal.
- Build a holistic understanding of the interconnections between environmental degradation, sustainable development, inequality, and policy frameworks to address global and local environmental challenges.

PAPER: MINOR
Paper Description: GEOGRAPHY OF INDIA
Paper Code: GEOGMIN606
Paper Type: Theory & Practical Lab Based

Under this Skill Enhancement Course, the outcomes are the followings:

- Develop a strong understanding of India's physical landscape, categorized into distinct geological regions. Students will examine the characteristics, formation, and significance of these divisions in terms of natural resources, climate, and biodiversity.
- Gain in-depth knowledge of India's major drainage systems, including the Himalayan and Peninsular rivers, to analyze their patterns, significance in agriculture, water resource management, and impact on settlement distribution.
- Explore the production and distribution of natural resources, understanding their role in the economy, industry, and energy security, while also evaluating challenges related to sustainable extraction and resource management.
- Acquire the ability to classify major soil types and their distribution. Develop expertise in crop selection and land-use planning, enabling informed agricultural and environmental decision-making based on soil fertility and regional characteristics.

- Attain proficiency in ecological assessment, biodiversity evaluation, and habitat conservation through the study of natural vegetation classification, enhancing understanding of forest types, their distribution, and their role in sustaining ecosystems.
- Strengthen knowledge of the locations and significance of major iron ore mines, coal fields, and petroleum reserves, understanding their contribution to India's economy, energy production, manufacturing, and exports.
- Develop awareness of the environmental consequences of large-scale agriculture, including issues such as water consumption, soil degradation, and pesticide use, while emphasizing the importance of sustainable farming practices.
- Students will develop essential research and analytical skills by conducting fieldwork, collecting primary and secondary data, and preparing a comprehensive field report on a topic related to physical or human geography. This process will enhance their ability to interpret geographical data using maps, diagrams, charts, and tables while fostering critical thinking, report writing, and presentation skills through internal and external evaluation, including a viva-voce.

PAPER: DSC
Paper Description: GEOGRAPHY OF INDIA
Paper Code: GEOGDSC607
Paper Type: Theory & Practical Lab Based

Under this Skill Enhancement Course, the outcomes are the followings:

- Develop a comprehensive understanding of India's physical landscape, categorized into distinct geological regions. Students will examine the characteristics, formation, and significance of each region in terms of natural resources, climate, and biodiversity.
- Gain in-depth knowledge of India’s major drainage systems, including the Himalayan and Peninsular rivers, to analyze their patterns, significance in agriculture, water resource management, and impact on human settlements.
- Explore the role of natural resource production and distribution in shaping the economy, industry, and energy security, while also addressing challenges related to sustainable extraction and resource management.
- Develop the ability to classify major soil types and understand their distribution. Gain expertise in crop selection and land-use planning, enabling informed agricultural and environmental decision-making based on soil fertility and regional conditions.

- Acquire proficiency in ecological assessment, biodiversity evaluation, and habitat conservation by studying the classification of natural vegetation. This knowledge enhances understanding of forest types, their distribution, and their role in maintaining ecosystems.
- Strengthen knowledge of the locations and significance of major iron ore mines, coal fields, and petroleum reserves, understanding their contribution to India's economy, energy production, manufacturing, and exports.
- Build awareness of the environmental impact of large-scale agriculture, including water consumption, soil degradation, and pesticide use, while emphasizing the importance of sustainable farming practices.
- Students will develop essential research and analytical skills by conducting fieldwork, collecting primary and secondary data, and preparing a comprehensive field report on a topic related to physical or human geography. This process will enhance their ability to interpret geographical data using maps, diagrams, charts, and tables while fostering critical thinking, report writing, and presentation skills through internal and external evaluation, including a viva-voce.

PAPER: DSC
Paper Description: OCEANOGRAPHY, SOIL & BIOGEOGRAPHY
Paper Code: GEOGDSC608
Paper Type: Theory & Practical Lab Based

After completion this Generic Elective paper, the learning outcomes are the followings:

- Develop knowledge of ocean temperature and salinity distribution, understanding their role in global climate regulation and marine ecosystems.
- Examine the causes, types, and distribution of ocean currents in the Atlantic and Indian Oceans, assessing their impact on weather, climate, and navigation.
- Gain insights into coral reef development and the theories explaining reef formation, particularly Darwin’s theory, and evaluate the impact of environmental changes on reefs.
- Understand the causes and consequences of sea level fluctuations, assessing their implications for coastal environments and human settlements.
- Learn about soil formation processes, factors influencing soil development, and characteristics of an ideal soil profile.

- Analyze the profile development of podzol soil and recognize how different environmental conditions influence soil composition and structure.
- Gain proficiency in assessing the physical (texture and structure) and chemical (pH and organic matter) properties of soil for agricultural and environmental applications.
- Understand fundamental ecological concepts, including species interactions, ecological niches, habitats, and succession, to analyze ecosystem dynamics.
- Develop an understanding of trophic levels, food chains, and food webs, evaluating energy flow within ecosystems.
- Gain awareness of biodiversity types, threats to ecosystems, and conservation measures to promote sustainable environmental management.
- Develop skills in drawing geological sections of uniclinal structures, enabling analysis of rock formations and geological processes.
- Identify and analyze xeric periods using Ombrothermic graphs from various weather stations to assess climatic conditions.
- Gain proficiency in representing and interpreting rainfall distribution over time using hyetographs for hydrological and climatological studies.
- Strengthen critical thinking and technical expertise in oceanography, soil science, ecology, and geological interpretation, applying theoretical knowledge to real-world environmental challenges.

PROGRAM OUTCOMES

- To understand the basic concepts in geography. Develop a comprehensive knowledge of physical, human, and environmental geography to analyze spatial patterns and processes.
- Develop of knowledge, skills and holistic understanding of the discipline among students.
- Develop the ability to critically assess and interpret geographic information, theories, and research findings.
- Evaluate environmental challenges such as climate change, land degradation, and biodiversity loss while promoting sustainable solutions.
- Analyze urbanization trends, industrial development, and rural-urban interactions to contribute to effective spatial and regional planning.
- Understand population dynamics, settlement patterns, economic geography, and cultural landscapes to assess socio-economic development. Apply geographical knowledge to policy-making in environmental management, disaster risk reduction, sustainable development, and urban planning.
- Effectively communicate geographical concepts, findings, and arguments through written and oral presentations.
- Develop an appreciation for cultural diversity and environmental sustainability, understanding the impact of human activities on the environment.
- Ability to understand and analyze the different maps/sheets/Images to look at the various aspects on the earth.
- Develop critical knowledge and skills among the students to identify the problems and validate the solutions.
- Gain an understanding of global issues and the ability to analyze how geographical factors contribute to global challenges.
- Understand the interconnectedness of geography with other disciplines, fostering a holistic approach to problem-solving. The curriculum encompasses the study and analyses of concepts of sub-disciplines and related disciplines such as Environmental Studies, Disaster Management, Geology, Tourism Management, Sustainable Development, Resource management and conservation, Regional Planning and Development Studies etc.

PROGRAMME SPECIFIC OUTCOMES

- Explore the relationship between geography and culture, society, and human behavior, understanding how these factors shape and are shaped by spatial patterns.
- Develop a strong foundation in physical, human, and environmental geography, enabling a comprehensive understanding of spatial patterns and processes.
- Assess environmental issues such as climate change, biodiversity loss, land degradation, and natural hazards, promoting sustainable solutions.
- Understand concepts related to urbanization, rural-urban interactions, industrial geography, and regional development for informed spatial planning.
- Analyze population dynamics, settlement patterns, cultural landscapes, and socio-economic development trends across different regions.
- Contribute to policy-making in environmental management, sustainable development, urban planning, and disaster risk reduction using geographical insights.
- Understand the principles of climate change and develop skills in assessing its impacts, as well as proposing and implementing adaptation strategies.
- Acquire knowledge and skills related to natural and human-induced disasters, including risk assessment, mitigation strategies, and disaster response planning.
- Understand the spatial distribution of natural hazards, assess risks, and formulate strategies for effective hazard management and response.
- Collaborate with professionals from other disciplines to address complex geographical issues, fostering interdisciplinary perspectives.
- Acquire skills in sustainable resource management, including water resources, forestry, and land use planning.