

# SEVA BHARATI MAHAVIDYALAYA

## DEPARTMENT OF GEOGRAPHY

### GEOGRAPHY HONOURS

#### PROGRAMME LEARNING OUTCOME AND COURSE SPECIFIC OUTCOMES

##### **Paper: CC-1: (Geotectonic and Geomorphology)**

**Programme Outcome:** Learners will be provided the scope for holistic understanding of earth-surface processes under different geotectonic and lithological boundary conditions as well as geological time scale. They will know how the working of external geomorphic processes controlled by internal geotectonic forces. They could understand the mechanism of plate tectonics and resultant impacts or landforms on earth surface. They will elucidate all the key concepts that help them to organize the ideas and rigorously explain process-landform relationship. All the external processes like weathering, mass wasting, river, glacier wind and coastal wave and tide are elucidated in details in connection to the landforms developed. Fluvial processes and associated forms are explained in details understanding their regional as well as global importance.

**Course Specific Outcomes:** Students will learn the mechanism of both internal and external processes that shape present earth surface at varied spatial and temporal scale. Learners will enhance their ability to take part in resource and environment management. On completion of this course they can formulate hydrological, geologic and economic and landscape planning. Learners may take part in hazard management in their locality.

##### **CC2: (Cartographic Techniques)**

**Programme Outcome:** The system of transformation of latitudes and longitudes into metric scale and the relative departures will help the students in correlating generating globes with prepared maps. Learners will be informed on the principles and construction of different projections method. They will be trained on various instrument-based surveying techniques and associated map making. Toposheet will educate the student about the ground relief (landforms and terrain), drainage (lakes and rivers), forest cover, administrative areas, population areas, transportation routes and amenities (including roads and railroads), and other man-made elements.

**Course Specific Outcomes:** Toposheet can be used to plan a building complex, an industrial plant, a railway, and an irrigation project, among other things. Bridges, tunnels, and dams can all be planned using Toposheet. After completion of these course students will be capable on taking decision about selection of the projection method for different thematic maps on different parts of the world.

### **CC3: (Human Geography)**

**Programme Outcome:** The goal of this course is to introduce students to interdisciplinary viewpoints on various geographic dimensions. It will educate the student about the importance of spatial perspectives in illustrating geographical changes and their impact on the economy, community, nature, and governance in diverse locations with special emphasis ancient people of the world.

**Course Specific Outcomes:** After completion of this course, a candidate should be able to perceive the active function of human geography as a distinct discipline of human ecology. Students should be able to evaluate components and drivers of population change, as well as its implications.

### **CC-4: (Cartograms and Thematic Maps)**

**Programme Outcome:** The basic objective of this course is to introduce students in regard to cartographic techniques and surveying techniques. Students will learn different types of datum and their uses for map making.

**Course Specific Outcomes:** They will prepare the plans of buildings, campuses, residential complexes etc. even on cadastral level using sophisticated survey instruments. The proper understanding on surveying and mapping technique will contribute a lot to develop land use and land cover map, contour map, cadastral map etc. They can become efficient surveyors and thus could address the issue of employability.

### **CC-5: (Climatology)**

**Programme Outcome:** Learners will be provided detail ideas in regard to climate, climate change phenomena, climatic hazards and the impact of climate on society and economy. The prime objectives are to exchange knowledge and ideas about all climate related phenomena worldwide especially in India among learners. The learners will put more emphasis on understanding the earth surface processes and its interaction with climate and climate change phenomena. To explore the importance of climate in different field of socio-economic growth and development may be taken into account as the major learning objective of the course. They will find interest in the scopes for resilience and adaptive capacity to climate related hazards and National policies and planning to address climate change issues.

**Course Outcome:** Students will come to know about climate system, general circulation of atmosphere, weather related hazards climate change phenomena, climate action plan for sustainable development at global regional and local level. Not only will those students acquire knowledge in regard to climate change induced global warming, they will also understand its linkage with other environmental systems, agriculture, health aspect, settlements etc. After

completion of the course they can make aware the people at community level on climate induced various hazards and its possible adaptation strategies.

#### **CC6: (Statistical methods in Geography)**

**Programme Outcome:** Students will be trained on various statistical techniques used to analyse geographical data. Various types of probability distribution in relation to specific geographical data sets will be explained in detail. They will be informed on various types of hypothesis testing and their selections under different situation. The correlation and regression between bivariate and multivariate data sets will enhance their learning experience.

**Course Specific Outcomes:** After completion of this course students will be able to apply various statistical techniques to analyse different sets of geographical data. The capacity of analysing probability of geographical data will be enhanced. They will be able to handle huge data sets as well analyse them after the attainment of this course. After achieving this course, the students would be eligible for different sectors of planning and development which will enhance their job opportunities. The ability of the learners in comparing population mean with the sample mean through various types of hypothesis testing will be improved.

#### **CC7: (Geography of India)**

**Programme Outcome:** This course aims to inform the learners in the history of state reorganization of India after Independence and the nature and intensity of regional inequality in the growth of industry and agriculture. Various large scale development projects like; multipurpose project, the policies of green revolution, forest policies etc. will be evaluated for better understanding of their functioning at national scale. The regional issues of Jungle Mahal, Hilly area of WB, Sundarban and Coastal area will also be dealt with.

**Course Specific Outcomes:** The students will be well acquainted with various physical and social aspects of India. After completion of this course the learners will be aware about the India – its history and major developmental policies, their consequences and contemporary issues. They will come to know the role of physiographic and socio-economic parameters in regional planning and development. They will find interest on the regional issues of Jungle Mahal, Hilly area, Sundarban and Coastal area of West Bengal.

#### **CC-8: (Regional Planning and Development)**

**Programme Outcome:** This paper will show how to do a spatial analysis of rural and urban functions. The social and economic characteristics of cities and suburbs will be covered in this research. The environmental and ecological effects of urban land usage will be examined. The essentials of regional geography and sustainable development, such as sustainable rural development, green city, regional development theory, and Hirschman, Rostov and Friedman models, will be covered in this module.

**Course Specific Outcomes:** Recognize the many aspects of development as well as geographical differences in order to design balanced development. Students will gain understanding of rural and urban development as historic, geographic, social, and environmental impact of rural and urban related concerns through coverage to the disciplines of Geography and Planning.

### **CC9: (Economic Geography)**

**Programme Outcome:** Learners will be provided adequate ideas and knowledge on concept of economic geography, theories of choices, resource availability, classification of economic activities, resources scarcity of resources and associated environmental issues in India and across the Globe. Students will learn the availability and adequacy of location of economic activities i.e. Von Thunen and Weber theories for socio-economic development at global and regional scale. Special emphasis has been given on the resource adequacy and scarcity in relation to populations and international agreements.

**Course Specific Outcomes:** After completion of this course learners will acquire knowledge about the economic activities and its role in human society which will also help them to take part in resource planning and management for sustainable development.

### **CC10: (Environmental Geography)**

**Programme Outcome:** This paper will present you what is the role of environment in our Ecological Home. This paper will encourage you how to do motivate the society to conserve the environment. The sustainable development goals through resource management will be analyzed in this module.

**Course Specific Outcomes:** Students will enhance their understanding on general concept of Environmental management and its significance in 21st century. They will understand the debate on Development and Environmental crisis for only one Earth and the need to establish strategies in local, national, international context. Students will gain knowledge of environment and holistic approaches for resource utilization, management and eco-sustainable development in regional level.

### **C11: (Field Work and Research Methodology)**

**Programme Outcome:** Learners will get initial training on need for research, their types and objectives. They will know how to find out research gaps through literature review and to fix research objectives accordingly. They will know how to collect and analyze data in coordination with research objectives. Students will be curious to know the procedure of research design, writing a proposal and writing research reports. This course aims to train the students on the ethical issues during data collection-consent of the parties; responsibility towards participants, collaborators and society; and publication ethics etc. Fieldwork should be conducted with

following objectives: 1. To train the students how to conduct and organise field work with an aim to develop managerial skill. 2. to make them interested in linking practical issues with theoretical knowledge 3. to draw their attention to contemporary issues, sensitize them to local problems and finding solutions

**Course Specific Outcomes:** The learners will be interested in the major steps for conducting geographical research. They will be inquisitive in understanding general methodological framework including data collection, data analysis, and representation. They will develop the skills for designing a research work and writing a good research proposal and research report. This course aims to develop research interest among the students.

### **C12: (Remote Sensing and GIS)**

**Programme Outcome** The course will highlight upon the applications of geospatial tools in geographical studies. The basic objective is to make the participant efficient in geospatial techniques and thematic mapping. Students will learn how to convert non-geographic data to Geospatial Data. They will know the different methods for geo-processing of vector data. They will be trained on preparing various types of thematic maps from geospatial datasets through different techniques of image processing. The course also aims to make the participants eligible in different sectors of planning and developmental activities at regional and national level where geospatial tools and thematic mapping has become more relevant in the present day.

**Course Specific Outcomes:** Students will come to know about the geospatial tools and techniques for analysing various aspects of geographical parameters. After achieving the knowledge in regard to geospatial techniques and thematic mapping, students will apply this modern technique of geographical studies in regional planning and development. The idea on geospatial techniques and thematic mapping may also be applied in resource appraisal, hazard and disaster management at global, regional and local scale. After completion of this course learners will enhance their capacity to use geospatial techniques in preparing useful thematic maps which will boost their ability in mapping and spatial analysis.

### **CC13: (Evolution of Geographical Thought)**

**Programme Outcome** Learners will be informed on the nature of the discipline as a science of synthesis and the evolution of the philosophical frameworks since ancient times to the modern age. Major developments of the theoretical foundation in the 20th century are added in a logical order of sequence. They will know the cross-cutting issues like Radicalism, Structuralism, Modernism, Postmodernism, Structuralism and Post structuralism. They will explore all possible dimensions and fields where geographical knowledge could be applied.

**Course Specific Outcomes:** Learners will foster their interests in the philosophical background of different discourses of Geography. They will develop clear insight into theoretical foundation of the subject which guides them to design objectives and methodological framework of

geographical enquiry. They will think in a way to treat geography as a science of holistic synthesis.

#### **C14: (Disaster Management)**

**Programme Outcome:** The basic aims of the course are to make the students well aware about destructive impacts of various types of hazards and disasters. The course will help a lot to adapt with hazards and disasters. The objective of this paper is to make the participants aware about the natural hazards and associated disasters in India – its major management strategies. They will be informed on the concepts of risk and vulnerability in connection to climatic extreme events, riverine and coastal hazards, desertification and high-altitude extremes. The course also aims to the application of modern tools and techniques in hazards and disasters management. The participants will learn about the modern tools and techniques of disasters management.

**Course Specific Outcomes:** After completion of this course learners will enhance their understanding on different attributes of climatic extreme events, riverine and coastal hazards, desertification and high-altitude extremes. This will capacitate them for direct participation and effective contribution in hazard management. Thus, this course addresses the issues of social relevance and boost employability. After completion of the course students can make the people aware at community level on various hazards and its possible adaptation strategies.

#### **DSE-1: (Hydrology and Oceanography)**

**Programme Outcome:** Students will learn the systematic interaction among the hydrological parameters at both local, global and watershed scales. The working of hydrological cycle and relative roles of runoff, evaporation and infiltration under different land use-soil-vegetation complex will be discussed in detail. They will know various hydrological processes and their significance in sustaining environment and ecology at global and regional scale. They will learn the analysis of hydrological data in understanding the trend of hydrological events such as drought and floods and will be able to predict them efficiently. They will know about on Ocean circulation, waves, tides and change of sea level and its causes.

**Course Specific Outcomes:** The students will enrich their knowledge on hydrology after completion this course and will take part in water resource management, floodplain planning, and river basin management. Learners may contribute their knowledge on anthropogenic intervention on hydrological system and its impact on environment and society to local community for sustainable future. The students will enrich their knowledge on ocean systems and how to relate between global warming and sea level change in recent time.

#### **DSE:1 (Cultural and Settlement Geography)**

**Programme Outcome:** The goal of this course is to introduce students to interdisciplinary viewpoints on population concerns at various geographic dimensions. It will educate the student about the importance of spatial perspectives in cultural geography. The goal of this course is to familiarize students with rural and urban settlement size, pattern and morphology and its challenges and temporal components. Learners will know the development of cultural landscape through man-nature relationship and how it varies across the regions. They will be informed on different mechanism of cultural transformation through technological innovation. Learners will become inquisitive on the multicultural identity of India.

**Course Specific Outcomes:** After completion of this course, a candidate should be able to perceive the active function of cultural geography as a distinct discipline of human geography. Students should be able to evaluate change of culture and numerous components, as well as its drivers and implications. Students will be able to comprehend the principles and components of rural and urban settlement growth, development, and administration.

#### **DSE-2: (Resource Geography)**

**Programme Outcome:** Learners will be provided adequate ideas and knowledge on resource availability, classification of resources, scarcity of resources and associated environmental issues in India and across the Globe. Students will learn the availability and adequacy of major natural resources i.e. land, soil, water and forest, fossil fuels and their effective utilization for socio-economic development at global and regional scale. They will know about the importance, vulnerability and degradation of land, soil, forest and water resources and also the methods for their conservation.

**Course Specific Outcomes:** After completion of this course learners will acquire knowledge about the anthropogenic activities and its role in depletion and crisis of natural resources which will also help them to take part in resource planning and management for sustainable development.

#### **DSE- 2: (Social Geography)**

**Programme Outcome:** Learners will understand changing nature of social and cultural geography in the context of changing perspective of analysis to deal with the dynamic social and cultural traits. They will be interested to enquire into the structural components and their relations in the form of social processes. They will learn the spatial dimensions of social wellbeing, social justice and social exclusion. They will know the planning initiatives to maximise the social wellbeing and social equity.

**Course Specific Outcomes:** After completion of this course learners will develop understanding on the spatial as well as temporal variation of society and their culture as a dynamic interface

between man and nature. They will be sensitive towards cross cutting issues like social justice, social exclusion and social wellbeing and will be able to evaluate the role of planning initiatives in inclusive growth and maximization of social justice.

### **DSE :3 (Political Geography)**

**Programme Outcome:** Major objective of this course is to make learners aware on the politics of space and associated resources and related competition and conflicts among the neighbouring countries and states for controlling the space and its resources. They will learn various ideas and concepts of governance and related spatial administrative and political units. Much emphasis has been given on the politics of water and petroleum resources at national as well as global scale. The power and functions of worlds trade and political blocks will enhance their learning experience.

**Course Specific Outcomes:** After completion of this course learners will enrich their understanding on the politics of space and associated resources. They will foster their understanding on the political strategy in controlling important resources like water and petroleum resources at national as well as global scale. They will be more curious in understanding the geographical factors of federal structure of India. The power and functions of worlds trade and political blocks will enhance their learning experience.

### **DSE:3 (Soil and Biogeography)**

**Programme Outcome:** Learners will be provided adequate ideas and knowledge on soil formation, classification of soils and specific ideas on soils properties and associated degradation issues in India and across the Globe. Students will learn the availability and adequacy of major natural resources i.e. land, soil, water and forest. They will learn various ideas on biodiversity, biome and ecosystem zone and biodiversity conservation methods. They will know about the importance, vulnerability and degradation of land, soil, forest and water resources and also biodiversity the methods for their conservation.

**Course Specific Outcomes:** After completion of this course learners will acquire knowledge about the anthropogenic activities and its role in depletion and crisis of natural resources which will also help them to take part in resource planning and management for sustainable development.

### **Dse-4: (Agricultural Geography)**

**Programme Outcome:** This course aims to enhance understanding on the role of agriculture in human civilization. This paper will encourage the learners how to get involved in agricultural practices through modern Agro-science and technology. They will be curious in learning geographical factors influencing agriculture. world agriculture system, agricultural types and



pattern of agriculture and occupational structure in India. They will boost their understanding on role of agriculture in Indian economy, food security and food safety.

**Course Specific Outcomes:** After completion of this course students will find interest in understanding geographical perspectives of agriculture. They will develop knowledge on development and prosperity of modern agricultural practices for sustainable economic growth to establish policies in local, national, international context. Students will acquire knowledge of organic agriculture and its practices for proper resource utilization and eco-sustainable development in regional level. They will be curious in learning problems of Indian agriculture especially the problem of low productivity, natural hazards and possible damage, threats from vagaries of monsoon. They will understand the role of agriculture in Indian economy.

#### **DSE:4 (Urban Geography)**

**Programme Outcome:** This paper will show you how to do a spatial analysis of urban functions. The social and economic characteristics of cities and suburbs will be covered in this research. The environmental and ecological effects of urban land usage will be examined. The essentials of urban geography, such as city definitions, central place theory, and classic urban spatial structure models, will be covered in this module.

**Course Specific Outcomes:** Understanding and recognizing regions is a crucial part of geography. Recognize the many aspects of development as well as geographical differences in order to design balanced development. Students will gain understanding of urban development as historic, geographic, social, and environmental impact of rural and urban related concerns through coverage to the disciplines of Geography and Planning.

#### **Sec: 1(Coastal management)**

**Programme Outcome:** This course aims to enhance understanding the coastal morpho dynamic variables and their role on coastal process. This paper will encourage the learners how to manage the coastal hazards and associate pollution through modern Geo-science and technology.

**Course Specific Outcomes:** After completion of this course learners will enhance their understanding on different attributes of cyclonic events and coastal hazards, shifting of shoreline and high waves actions. This will capacitate them for direct participation and effective contribution in hazard management under the coastal regulation zone.

#### **SEC-I (Computer Basics and Computer Application)**

**Programme Outcome:** This course is designed to get preliminary ideas of computer and its applications. Those who didn't learn computer in 10+2 level, this course is a stepping stone for them to venture first time into computer-based applications. The objectives of the course are - ● To get an overview of the computer system and its applications. ● To get an exposure to the computer-based applications.

**Course Specific Outcomes:** Upon completion of this course, students will be able to - • 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.

### **SEC-II: (Research Methodology)**

**Programme Outcome:** Learners will get initial training on need for research, their types and objectives. They will know how to find out research gaps through literature review and to fix research objectives accordingly. They will know how to collect and analyze data in coordination with research objectives. Students will be curious to know the procedure of research design, writing a proposal and writing research reports. This course aims to train the students on the ethical issues during data collection-consent of the parties; responsibility towards participants, collaborators and society; and publication ethics etc.

**Course Specific Outcomes:** The learners will be interested in the major steps for conducting geographical research. They will be inquisitive in understanding general methodological framework including data collection, data analysis, and representation. They will develop the skills for designing a research work and writing a good research proposal and research report.

### **SEC-II (Advance Spatial Statistical Techniques)**

**Programme Outcome:** Students will be trained on various statistical techniques used to analyse geographical data. Various types of probability distribution in relation to specific geographical data sets will be explained in detail. The correlation and regression between bivariate and multivariate data sets will enhance their learning experience.

**Course Specific Outcomes:** They will be able to handle huge data sets as well analyse them after the attainment of this course. After achieving this course, the students would be eligible for different sectors of planning and development which will enhance their job opportunities.