Baba Farid College, Bathinda

Department of Geography

Program: M.Sc. Geography

Program Specific Outcomes

PSO 1: Students will have an ability to think analytically about contemporary Environmental issues from Local to Global level.

PSO 2: Students will be well informed about sustainable practices as solutions to the major environmental problems.

PSO 3: Students will have an in-depth understanding of, and mastery of the literature of both Physical Geography as well as Human Geography.

PSO 4: Students will enhance their knowledge of Remote Sensing and GIS, widely used for monitoring, assessing and analyzing Earth surface.

PSO 5: Students will obtain wide interdisciplinary knowledge of the places and locations. It has wide sphere of knowledge as it is stands on the crossroads of Natural Sciences and Social Sciences

PSO 6: Students will be able to demonstrate an ability to develop a research proposal and carry out independent research as project report writing is a part of curriculum.

PSO 7: Students will develop an ability to present and defend research work in oral, written, graphic and cartographic forms.

PSO 8: Students will learn the processes and theoretical information of planning (Urban) which is much needed in contemporary times

PSO 9: Students will enhance their knowledge in field also. The field surveys and field visits give them first-hand information about society, mapping, planning and management.

Course Outcomes

Semester 1

Course: Fundamentals of Geomorphology

CO1: Students will be able to generalize the basic concepts required for the conceptual background of the landform study or Earth surface study. It covers evolution of geomorphic ideas as well as recent trends in geomorphology.

CO2: Students will be able to detect the alterations of earth surface by studying the evolution of landforms and the processes of landforms emergence.

CO3: Students will be able to differentiate among various types of landforms and the factors responsible for their particular type, shape and process of formation.

CO4: Students will be able to understand the formation of various landforms and models of different scholars and the implications of those models.

Course: Man and Environment

CO1: Students will be able to generalize the environment as a concept and approach to extrapolate the Man- Environment relationship.

CO2: Students will be able to relate to the different types of ecosystems on earth and understand the ecology as a science.

CO3: Student will be able to compare the energy flow among various food-chains and food webs on earth surface.

CO4: Students will be able to analyze the process of bio-geochemical cycles on earth surface and their impact on the environment.

CO5: Students will be able to detect the impact of various human activities on land, water, flora and fauna on earth.

CO6: Students will be able to recognize the various governmental initiatives to protect environment at national level in India.

Course: Geography of India

CO1: Students will be able to study the natural resources, landforms, climate and soils and the importance of resources in India.

CO2: Students will be able to detect the location, availability and distributional patterns of mineral resources in India.

CO3: Students will be able to detect the distributional patterns, density, problems and associated policies of population in India.

CO4: Students will be able to detect the availability and distribution of resources- associated industries & industrialist distribution, agricultural and allied activities and development of economic resources in India.

Course: Geography of Settlements with Special Reference to India

CO1: Students will be able to generalize the idea behind the studies of settlement geography and the recent trends of this course which are useful in planning.

CO2: Students will be able to detect the cause of development and process of evolution of settlements from historic past of India.

CO3: Students will be able to understand the pattern of settlement on space through different scholars' point of view.

CO4: Students will be able to evaluate the variations in morphology, classification and development of rural and urban settlement by studying various cities' settlement patterns.

Course: Map Work and Practical Geography (Cartography)

CO1: Students will be able to generalize the theoretical background of Cartography and Cartographical techniques of map making.

CO2: Students will be able to do hands-on practice of map making in Geography Lab by analyzing the socio-economic and climatic data.

CO3: Students will be able to do hands-on practice of graphical representation of agriculture, population & climatic data in Geography Lab.

Semester 2

Course: Remote Sensing and Geographic Information System

CO1: Students will be able to grasp knowledge about basic concepts of Remote Sensing, Satellite positioning, Electromagnetic Spectrum and Spatial features.

CO2: Students will be able to generalize the various satellite systems along with sensors of different countries, their working conditions with special reference to ISRO and Indian satellite systems.

CO3: Students will be able to detect the Global Positioning Systems; its elements, applications and image interpretation features.

CO4: Students will be able to understand the Geographical Information Systems, various software and applications by studying Digital Elevation Models as well.

Course: Human Impact on Environment: Issues & Perspectives

CO1: Students will be able to grasp different perspectives of scholars to understand the relationship of Man and habitat/environment/Earth.

CO2: Students will be able to generalize the population dynamics in terms of distributional factors, density factors; different theories to study population dynamics.

CO3: Students will be able to detect the impact of human activities on water and to analyze the sources, causes and impacts of water pollution.

CO4: Students will be able to detect the impact of human activities on atmosphere and to analyze the sources, causes and impacts of atmospheric pollution.

CO5: Students will be able to analyze the sustainable development goals, strategies to achieve these goals and understand the various controversies (case studies) over environmental strategies.

CO6: Students will be able to detect the environmental concerns which are affecting the earth surface at global level.

CO7: Students will be able to generalize the International environmental protection strategies to mitigate the global commons.

Course: Geography of Regional Planning& Development

CO1: Students will be able to understand types, needs, principles and problems in planning concepts.

CO2: Students will be able to understand the process and criteria of the planning of any region by taking some case studies of planning in different countries of the world.

CO3: Students will be able to understand different theories of regional planning and their applications.

Course: Applied Geomorphology

CO1: Students will be able to understand the need, objectives and role of geomorphology in identifying natural hazards.

CO2: Students will be able to analyze the role of geomorphology in environmental management like landslides, coastal and urban management.

CO3: Students will be able to analyze some resource evaluation techniques and use of Remote Sensing and GIS in resource management.

Course: Map Work & Practical Geography (Morphometric Analysis & Air Photo Interpretation)

CO1: Students will be able to do hands-on practice of techniques of Morphometric Analysis.

CO2: Students will be able to do practical work to understand drainage patterns, their graphical presentations and calculations of various methods.

CO3: Students will be able to analyze the concepts, and methods of scale determination in Aerial Photographs.

CO4: Students will be able to understand the process and practical analysis of Aerial Photo Interpretation and Photogrammetry.

Semester 3

Course: History of Geographic Thought

CO1: Students will be able to generalize the conceptual background of Geography as a subject, and the contribution of Chinese, European and Arab Geographers in the development of Geography as a subject.

CO2: Students will be able to detect the development of ideas, thoughts, theories and literature of Geography in Medieval Period by analyzing the contribution of selected Geographers.

CO3: Students will be able to detect the development of ideas, thoughts, theories and literature of Geography during 16th and 17th Century by analyzing the contribution of selected Geographers.

CO4: Students will be able to understand the paradigm shift of Geographical knowledge as an integrated subject.

CO5: Students will be able to analyze the development of Geographical thought in 20th century up-to present.

Course: Climatology

CO1: Students will be able to generalize the sphere of knowledge in climatic and atmospheric studies.

CO2: Students will be able to detect the layers, gases of atmosphere and incoming solar radiations responsible for life on earth.

CO3: Students will be able to determine the factors responsible and distribution of pressure systems, wind patterns and precipitation and their variations on earth surface.

CO4: Students will be able to examine the air circulation, atmospheric disturbance and related phenomenon occurring in earth's atmosphere.

CO5: Students will be able to detect some scholars' research and their evidences to prove the climatic changes in past and present scenario of climate change.

CO6: Students will be able to distinguish among various types of climatic regions and the standardized classification by Thornthwaite and Koppen.

Course: Option (i) Oceanography

CO1: Students will be able to understand the Oceanography as a science and various theories related to origin of oceans on earth.

CO2: Students will be able to examine the landforms types beneath the ocean water by studying the morphology of Indian, Pacific and Atlantic Ocean through diagrams and pictures.

CO3: Students will be able to generalize the distribution, classification temperature, salinity, density and coral reefs.

CO4: Students will be able to understand the movement of ocean water as tides, waves and currents.

CO5: Students will be able to detect the human impacts on ocean water health.

Course: Option (ii) Town & Country Planning

CO1: Students will be able to grasp the idea behind town planning by analyzing town plans of Historical India.

CO2: Students will be able to explore the methods of preparation of new town plans by studying various examples of selected cities in India.

CO3: Students will be able to grasp the idea behind country planning by analyzing the capabilities of rural India.

CO4: Students will be able to detect the strategies from existing rural development plans and will be able to think in new direction for rural development in India along with the concept of sustainable rural development.

Course: Map Work & Practical Geography (Quantitative Techniques)

CO1: Students will be able to explore the practical importance of statistical and quantitative techniques in the field of Geography.

CO2: Students will be able to explore the methods of calculation of measuring Central Tendency and their application in the field of Geography.

CO3: Students will be able to explore the methods of calculation of measures of dispersion y and their application in the field of Geography.

CO4: Students will be able to explore the methods of calculation of measures of correlation, regression and transport network and their application in the field of Geography.

Semester 4

Course: Specific Themes in Geographic Thought

CO1: Students will be able to analyze specific themes for the development of geographical thought as a field of knowledge.

CO2: Students will be able to analyze the emergence of various dualisms in the development of geographical thought.

CO3: Students will be able to review and critically analyze the laws, theories, models in the field of geography.

CO4: Students will be able to understand the causes of changing paradigms in geographical knowledge and the role of Indian geographers in those paradigms.

Course: Population Geography

CO1: Students will be able to generalize the scope, development and recent trends in Population Geography as a Subject.

CO2: Students will be able to detect the problem in data comparability of population data when generalizing for analysis.

CO3: Students will be able to understand the population attributes like birth rate, death rate, density, distribution and living places of human beings by analysis of rural and urban settlements.

CO4: Students will be able to analyze the various concepts used to study the population and population resource regions of the world.

CO5: Students will be able to analyze various case studies of various countries to understand the population patterns in the world.

Course: Option (i) Medical Geography

CO1: Students will be able to analyze the conceptual background; scope of Medical Geography; its importance in present era.

CO2: Students will be able to analyze the Man-Environment relationship and its impact on Human Health with special reference to various countries.

CO3: Students will be able to generalize the spatial distributions and factors influencing the spread of selected diseases on geographical extent.

CO4: Students will be able to understand the locations and planning of different healthcare systems of various countries.

Course: Option (iii) Agricultural Geography

CO1: Students will be able to generalize the conceptual background of agricultural geography by grasping different approaches of the study.

CO2: Students will be able to analyze agricultural data and various determinants and attributes of agricultural land use.

CO3: Students will be able to analyze various models of crop diversification, crop combination, agricultural efficiency and related techniques to analyze agricultural data.

CO4: Students will be able to detect the characteristics of Whittlesey's classification and various agricultural regions of India.

Course: Field Methods in Geography & Project Report

CO1: Students will be able to understand nature, objectives and various methods used as research tools in Geography.

CO2: Students will be able to analyze the concept, formation and models to test hypothesis in geographical and social research.

CO3: Students will be able to generalize the scale of field studies from a farm level to the regional level.

CO4: Students will learn to work in the field; methods of data collection and report-writing.

Course: Option (iv) Modern Political Geography

CO1: Students will be able to understand the conceptual background of the field of Political Geography in modern times and approaches working in academic world of political geography.

CO2: Students will be able to generalize various concepts like federalism in the field of geography and how it is related to boundary politics.

CO3: Students will be able to grasp global strategic views of various scholars on geopolitics.

CO4: Students will be able to know the interdisciplinary concepts of geography and politics.