

PG Department of Geography & Environmental Sciences

2022-23

Program Outcome (PO1- M.Sc. Geography)

After completing the Program the student will be able to read, interpret, and generate maps; get awareness about the hazards and disasters and their management; develop an understanding of physical geographic processes, the global distribution of landforms and ecosystems, and the role of the physical environment on human populations; begin to think in spatial terms to explain natural occurrences; develop their skills, knowledge and holistic understanding of discipline.

Program Specific Outcome (PSO1)

Student will be able to

- Understand about the physical processes of ecosystems with relation to exchange of energy, water and carbon.
- Get knowledge about environmental hazards and management
- Understand the overview of India regarding every aspect.
- Understand about the site where human beings live.
- Understand about the Economic activities through which our physical and cultural environment gets changed.
- Understand to interpret, read, analyze and identify features from Geological and topographical Maps

Course Outcome

CO 1- Fundamentals of Geomorphology

Student will be able to

- Learn morphological mapping on aerial photographs and maps used in resource studies in various disciplines.
- Study form, processes and history about earth.

CO 2- Environmental Geography

Student will be able to

- Study physical and biological component of environment, interaction among its component, and effect of these components on human being and vice versa.
- Deal with the environment in its totality unlike some other disciplines which only focus on one or few of its aspects. It analyses the time- space relationship between man and the environment.

CO 3- Resource Geography of India

Student will be able to

- Understand the location, Physiographic divisions, Drainage, Climate, and Vegetation of India
- Gain knowledge about problem and prospect about agriculture, trade and transport routes.

CO 4- Geography of Settlement

Student will be able to

- Understand the Nature and Scope of Settlement, Geographical Characteristics of Rural and Urban Settlements according to Indian Census and nature, scope, evolution and study methods.
- Understand the settlement types, pattern, nature and process of urban settlement.

CO 5- Economic Geography

Student will be able to

- Discuss the Locational factors of different economies.

- Assess the importance of economic activities around the world.
- Understand the economies scale, transportation and communication, nature and role of international trade.

CO 6- Map Work and Practical Geography (Cartography)

Student will be able to

- Interpret, read, analyze and identify features from Geological and topographical Maps.
- Study weather maps, isopleths, isobars, isotherms, weather symbols, wind rose to study wind direction and speed of the winds across the globe.
- Make different map symbols to show variety of data like Graduated symbols to study agricultural data, area maps, etc.
- Making different maps showing various methods like Dot Method, Choropleth Method, Choromatic Method etc.
- To know the different climatic conditions of the world for dwelling.

CO 7- Climatology

Student will be able to

- Understand the structure, composition of Atmosphere.
- Understand the climatic changes
- Understand weather phenomena: winds, humidity, and precipitation

CO 8- Human Impact on environment: issues and Perspectives

Student will be able to

- Understand the Man's impact on water and atmosphere
- Understand the Concept of Sustainable development and strategies to achieve sustainable development
- Understand the global environmental problems and environmental strategies

CO 9- Geography of Regional Planning

Student will be able to

- Understand the need of regional planning.
- Compare regional planning in developed and developing countries
- Understand the planning of the regions as T.V.A, of USA and NCR of India

CO 10- Biogeography

Student will be able to

- Understand the geographical dispersion of Animal
- Awareness about for conservation of animals

CO 11- Human Geography

Student will be able to

- Understand about the different schools of human geography
- Study the various races of mankind
- Understand about the mosaic of culture, religion and language

CO 12- Map Work and Practical Geography (Morphometric Analysis and Air Photo Interpretation)

Student will be able to

- Make maps showing drainage density, Bifurcation method, Stream ordering, Factor Form.
- Study about Slope Analysis Methods of Raisz and Henry, Wentworth Method, Robinson Method.

- Study Aerial Photographs for interpretation of different natural and man-made features like mountains, valleys, rivers, forests, roads, railways, agriculture, residential area, fallow land etc.
- Study different errors in aerial photographs like Drag, geometric errors as well as Mosaics.

PSO 2- Student will be able to

- Understand about the Oceans' Structure, Origin and their preservation and as a resource for future use.
- Understand about the planning of a town
- Get knowledge about scientific concepts of remote sensing, GIS and GPS.
- Understand about the disasters, their impact on human life and know about what to do at the time of any kind of disaster
- Understand about the Agricultural pattern, crop diversification and crop combinations
- Understand the advanced techniques of mapping with the help of GIS, Aerial Photographs, Satellite imageries etc.

CO 13- Oceanography

Student will be able to

- Derive data from the work of oceanographers used in marine engineering; in the design and building of oil platforms, ships, harbors, and other structures that allow us to use the ocean safely.
- Gain knowledge regarding World Oceans and understand processes within it.

CO 14- Town Planning

Student will be able to

- Shape and guide the physical growth of the town buildings.
- Understand urban and regional planning.

CO 15- Geography of Disaster Management

Student will be able to

- Study in totality the disasters happening in the world as a natural phenomenon or as anthropogenic activities.
- Understand Disaster Management as the process of enlightening the mankind about the nature, extent and methods to deal with the disasters.

CO 16- Remote Sensing and GIS

Student will be able to

- Learn to gain information about different objects without being in physical contact with the objects through aerial platforms and through satellites.
- Gain immense opportunities in the field of geographical maps, project planning, decision making and natural resource management.

CO 17- Manufacturing Industries

Student will be

- Acquainted with the industrial sector of India and how it has expanded trade and commerce.
- Understanding Industrial manufacturing as a major growth sector for the Indian economy with diverse companies engaged in manufacturing of machinery and equipment, electrical and metal products, cement, building and construction material, rubber and plastic products and automation technology products.

CO 18-Map Work and Practical Geography (Quantitative Techniques)

Student will be able to

- Gain a decision making approach that frequently seeks to obtain a mathematically optimal solution.
- Know the statistical techniques used to obtain an accurate analysis.
- Understand various quantitative methods like Mean, Median, Mode, Co-efficient of Variation, and Deviation Methods.
- Understand Data and its inference, data collecting techniques and types of data.
- Calculate and interpret statistical values by using different statistical tools.
- Calculate nearest neighbor analysis, connectivity, accessibility and sinuosity.

CO 19- Geographic Thought

Student will be able to

- Gain historical background of how geography evolved as a discipline and different branches emerged from it.
- Identify thoughts as agglomeration of physical, cultural and biological aspects of the earth.

CO 20- Agricultural Geography

Student will be able to

- Know different methods for calculating the crop diversification.
- Understand Study Crop Intensity, Land Capability, Land Use and Agro Climatic Regions of India.
- Know the modern strategy of agriculture in India.
- Gain knowledge about the crop specialization and crop diversification.
- Identify the eco friendly crop planning regions of India.

CO 21- Population Geography

Student will be able to

- Understand the spatial variation in the distribution, composition, migration and growth of population.
- Understand demography through spatial perspectives and Malthus Theory, Karl Marx theory, Transition Theory, Stop and Go Theory, Push and Pull Theory.

CO 22- Political Geography

Student will be able to

- Understand the concepts of Frontier and Boundaries.
- Comprehend the Geo-politics of climate change and Indian Ocean.
- Understand the relationship between the earth's physical condition and international affairs.
- Understand the interrelationship between the political processes and the spatial structures.

CO 23- Medical Geography

Student will be able to

- Understand the effects of locale and climate upon health.
- Identify the various factors which affect the health of population.
- Understand the interrelationship between Migration and Health.

CO 24- Field Methods in geography & Project Report

Student will be able to

- Undertake field surveys to collect local level information that is not available through secondary sources.
- Know the required information about the concerned interest.
- Gain experiential learning regarding geography of particular region.
- Undertake the collection of Primary data from field directly.
- Incorporate the Primary, Secondary and Tertiary data in their field report and record their relevance.

COURSE OUTCOME –B.A SOCIAL SCIENCE

CO 1- PHYSICAL GEOGRAPHY

Student will be able to

- Understand the processes and patterns in the natural environment such as the atmosphere, hydrosphere and biosphere.
- Understand where things are found, why they are there, and how they develop and change over time.

CO 2- CLIMATOLOGY AND OCEANOGRAPHY

Student will be able to

- Understand Climatology as the study of climate on geographical scales ranging from local communities to the Earth as a whole.
- Learn about all weather parameters such as temperature of the air, land and sea, cloud types and amount, humidity, precipitation, wind direction and velocity.
- Gain knowledge about marine life and its ecosystems, ocean circulation, plate tectonics and the chemical and physical properties of the ocean.
- Learn about currents and waves, movement of the sediments as well as the geology of the sea floor.

CO 3- GEOGRAPHY OF INDIA

Student will be able to

- Learn about Physical geography, Economic geography and Social geography of India.
- Understand Indian Physiographic divisions, Drainage, Climate, Vegetation, Natural Resources etc.

CO 4. WORLD GEOGRAPHY- I

Student will be able to

- Learn about geographical features of different continents.
- Understand the geographical, socio-economic, political and cultural features of different countries of the world.
- Learn about the natural resources, physiography, drainage, vegetation, soils, agriculture, industry of North America and Europe.

CO 5.WORLD GEOGRAPHY- II

Student will be able to

- Learn about the geographical, demographical, socio- economic and political aspects of Asia and Oceania continent.
- Learn about comparing different features of respective continents and analysing them
- Learn about the Trade relations of different countries of these continents with rest of the world and with each other.

CO 6. GEOGRAPHY OF PUNJAB

Student will be able to

- Understand the administrative background of Punjab before and after the independence and partition.
- Learn about the administrative divisions of Punjab.
- Learn about the physiographic divisions of Punjab, its climate, vegetation, soils, agriculture and industries.

CO 7. GEOGRAPHY OF RESOURCE AND ENVIRONMENT

Student will be able to

- Highlight the relationship between man and environment
- Develop awareness regarding the protection of environment and natural resources.
- Set goals to achieve sustainable development.

COURSE OUTCOME –B.A (UNDER GRADUATE)

CO 1. Geomorphology

Student will be able to

- Learn about the landform features, mountains, rivers, valleys etc.
- Learn about the chemistry, structure and origin of earth.

CO 2. Climatology

Student will be able to

- Learn about the climate of different places
- Learn about the formation of clouds, rainfall, fog and there effects
- Learn about the recent concept of climate change

CO 3. Oceanography

Student will be able to

- Learn about the origin, distribution and structure of world oceans
- Learn about the relation of ocean with celestial bodies
- Learn about the utilization of oceans as a storehouse of resources of Future

CO 4. Geography of Disaster Management

Student will be able to

- Learn about both types of Disasters, i.e., Natural and Anthropogenic
- Learn about how to reduce and mitigate the impact of disasters
- Learn about managing both situations, i.e., pre and post disaster

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