

Department of Geography UG CBCS Programme Outcome & Course Outcome

INTRODUCTION

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical properties of Earth's surface and the human societies spread across it. It is not just about knowing places; it's about comprehending how these places interact and influence each other. Human geography deals with people and their distribution across Earth and their interaction with Earth's surface. Physical geography covers all of Earth's physical aspects. Geography is a vastly complex degree offering insight into many important aspects of the world today; whether it be climate change, migration or society through human geography.

If students are interested in experiencing real world, creative thinking, Keen to develop expertise in the field, team work, problem solving, data collection, interpretation, analysis and representation of maps, and innovative technologies like remote sensing and GIS, Seek to achieve an academic degree with a varied employment prospects ranging from Cartographer, town planner, Geographical Information System Officer, Environmental consultant, Teaching and many more.

PROGRAMME OUTCOME OF GEOGRAPHY

Program outcomes in geography can vary depending on the level of study (undergraduate, graduate), program outcomes for a geography degree include:

Spatial Analysis Skills: Graduates should be able to analyze spatial patterns and relationships using various geographic information systems (GIS) tools and techniques.

Understanding of Physical and Human Geography: Students should have a solid understanding of both physical geography (e.g., landforms, climate, ecosystems) and human geography (e.g., population, culture, economic systems).

Fieldwork and Research Skills: Graduates should be proficient in conducting fieldwork, including data collection and analysis, as well as designing and executing research projects.

Critical Thinking and Problem-Solving: Students should develop critical thinking skills and be able to apply geographical concepts and theories to analyze real-world problems and propose solutions.

Communication Skills: Graduates should be able to effectively communicate geographical concepts, research findings, and analyses through written reports, presentations, and maps.

Environmental Awareness: Students should understand the interactions between human societies and the environment, including issues related to sustainability, resource management, and environmental degradation.

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Cultural Competence: Graduates should have an appreciation for cultural diversity and understand how cultural factors influence spatial patterns and human interactions with the environment.

Ethical and Professional Responsibility: Students should be aware of the ethical issues related to geographic research and practice, including issues of social justice, environmental stewardship, and respect for indigenous knowledge.

Interdisciplinary Perspective: Graduates should recognize the interdisciplinary nature of geography and be able to integrate knowledge and methods from other disciplines, such as economics, sociology, and environmental science.

Career Readiness: Graduates should be prepared for a variety of careers in fields such as urban planning, environmental management, geographic information science, education, and international development.

PROGRAMME SPECIFIC OUTCOME OF GEOGRAPHY

A degree in geography can lead to a wide range of career opportunities across various sectors. Here are some common career paths for geography graduates:

Urban and Regional Planning: Geographers can work as urban or regional planners, helping to design and manage cities and regions to promote sustainable development, improve transportation systems, and enhance quality of life.

Environmental Management: Geographers can work in environmental consulting firms, government agencies, or non-profit organizations to assess and manage natural resources, monitor environmental quality, and develop policies for conservation and sustainability.

Geographic Information Systems (GIS) Specialist: Geographers with expertise in GIS can work in industries such as urban planning, natural resource management, transportation, and public health, creating maps, analyzing spatial data, and developing GIS applications to support decision-making.

Cartographer or GIS Technician: Geographers can work as cartographers or GIS technicians, creating maps and visualizations using GIS software, satellite imagery, and other geospatial technologies for various purposes, including navigation, land use planning, and environmental monitoring.

Remote Sensing Specialist: Geographers with expertise in remote sensing techniques can work in industries such as agriculture, forestry, urban planning, and environmental monitoring, using satellite or aerial imagery to analyze landscapes, monitor changes over time, and assess environmental conditions.

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Transportation Planner: Geographers can work as transportation planners, analyzing transportation networks, traffic patterns, and travel behavior to design efficient and sustainable transportation systems, including public transit, highways, and bike lanes.

GIS Analyst: Geographers can work as GIS analysts in industries such as real estate, insurance, retail, and telecommunications, using spatial analysis and mapping techniques to support market analysis, site selection, and business decision-making.

International Development Specialist: Geographers can work for international organizations, non-governmental organizations (NGOs), or government agencies involved in international development, conducting research, implementing projects, and promoting sustainable development practices in areas such as poverty reduction, food security, and disaster risk management.

Climatologist or Meteorologist: Geographers can work as climatologists or meteorologists, studying weather and climate patterns, analyzing climate data, and contributing to weather forecasting, climate modeling, and climate change research.

Education and Research: Geographers can work as educators or researchers in academic institutions, conducting research, teaching courses, and mentoring students in various subfields of geography, including physical geography, human geography, and geographic techniques.

These are just a few examples of the many career opportunities available to geography graduates. The interdisciplinary nature of geography and the diverse skills acquired during a geography degree program can open doors to a wide range of professions and industries.

COURSE OUTCOME (CBCS)

Course outcomes in Geography courses typically focus on the specific knowledge, skills, and competencies that students are expected to acquire by the end of the course. Here are some examples of course outcomes for Geography (Hons.) courses:

SEMESTER- I

C-1: Geomorphology:

- I. Develop an idea about geomorphology and different types of fundamental concepts.
- II. Explain different types of geomorphic processes like weathering and mass wasting and cycle of erosion.
- III. Understand the processes of erosion, deposition and resulting landforms.
- IV. Acquire knowledge about slope forms and processes

C-2: Cartographic Techniques and Minerals (Practical):

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- I. Understand and prepare different kinds of map projection
- II. Knowledge about different scale
- III. Development of data presentation
- IV. Identify of rocks & minerals in the field

SEMESTER-II

C-3: Human Geography:

- I. Gain knowledge about major element of human Geography. •
- II. Acquire knowledge on culture & society
- III. Understand the population distribution age sex composition
- IV. Build an idea about urban and rural settlements, and its relationship with environment and also different theories related to settlement geography

C-4: Statistical Methods in Geography, Analysis of Geological Maps and Topographical Map Interpretation (Practical)

- I. Understand the importance of use of data in geography
- II. Understand the different types of data
- III. Recognize the importance and application of Statistics in Geography
- IV. Interpret statistical data for a holistic understanding of geographical phenomena.
- V. know about different application of statistics
- VI. identification and interpretation of maps

SEMESTER-III

C-5: Climatology

- I. Understand the Composition and structure of the atmosphere
- II. elements of weather and climate
- III. understand the different phenomena and approaches to climate classification.
- IV. Learn the interaction between the atmosphere and the earth's surface.
- V. Understand the importance of the atmospheric pressure and winds.

C-6: Soil Geography and Biogeography

- I. Have knowledge about the character and profile of different soil types.
- II. Understand the different properties of soil
- III. Know about formation and development of different soil in different condition
- IV. General concept of ecology ecosystem & biodiversity
- V. **Understand the bio-geo-chemical cycle**

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C-7: Statistics, Thematic Mapping & Meteorological Data Interpretation (Practical)

- I. Use and application of different statistical tools in geography
- II. Uses and preparation of thematic mapping technique
- III. Analysis of different climate data & interpretation of weather map

GE-1: Disaster Management:

- I. Understand the nature of hazards and disasters.
- II. Assess risk, perception and vulnerability with respect to hazards.
- III. Prepare hazard zonation maps.
- IV. Assessing the nature, impact and management of major natural and man-made hazards affecting the Indian subcontinent

SEC-1: Environmental Impact Assessment (Practical):

- I. Understand the importance of EIA
- II. Field experience in hazard area
- III. Experience in data collection & report writing

SEMESTER -IV

C-8: Geographical Thought:

- I. Understand the philosophy of Geography
- II. Evolution of the philosophy of Geography in different era
- III. Appreciate the contribution of the thinkers in Geography.
- IV. Understand different approaches in Geography

C-9: Economic and Environmental Geography:

- I. Understand the concept of economic activity,
- II. Factors affecting location of economic activity.
- III. Familiar with different economic zone
- IV. Understand the concept of physical, social and cultural element of environment
- V. Evaluation of man environment relationship
- VI. Development of different environmental programmes in the India and World

C-10: Remote Sensing and Surveying (Practical):

- I. Have knowledge of the principles of remote sensing, sensor resolutions and image referencing schemes.
- II. Interpret satellite imagery and understand the preparation of false color composites from them.

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- III. Analyzing and interpreting remotely sensed satellite images and aerial photographs in order to understand topographical and cultural variations on the Earth's surface.
- IV. Brings direct interaction of different types of surveying instruments like Dumpy level and Prismatic compass with environment.
- V. Develop an idea about different types of thematic mapping techniques.

C-2: Industrial Geography

- I. Know about types, geographical characteristics and location of industries
- II. Understand the positive and negative impact of industrialization in india

SEC-2: Research Methodology:

- I. Understand the different methodology in geographical study
- II. Have expertise in identification of problem of study, methodology, quantitative and qualitative analysis, and conclusions to be drawn about the area
- III. Handle logistics and other emergencies on field.
- IV. Develop skills in photography, mapping and video recording.
- V. Expertise in report writing

SEMESTER-V

C-11: Regional planning and Transport Geography:

- I. Understand and identify regions as an integral part of geographical study
- II. Familiar with natural, economic and planning region of India
- III. Analyzing the concept of regions and regionalization.
- IV. Understand the different models related to transportation
- V. Analysis the transport network
- VI. Solve the transport problem

C-12: Computer Application in Geography and GPS (Practical):

- I. Students can handle different geographic data in excel using computer application
- II. Digital representation of geographical data using GIS software
- III. Preparation and interpretation of land use and land cover map
- IV. Handling GPS and solve real life problem

DSE GROUP A-1: Urban Geography (DSE-1)

- I. Understand the nature, scope, approaches and recent trends in Urban Geography
- II. Know about Patterns of urbanisation in the world with special reference to India
- III. Understand the urban problem in recent time and growth

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- IV. Analyze the theories of urban evolution and growth

DSE GROUP A -2: Population Geography: (DSE-1)

- I. Examine and understand the various factors responsible for World Population growth and Distribution.
- II. To understand the fundamental Concepts Related to Population such as density, over, Optimum & under population, fertility, mortality and population for future Perspectives.
- III. To review and understand the subject matter with the help of Theories of Population

DSE GROUP A -3: Cartography: (DSE-2)

- I. Understand and prepare different kinds of map projection.
- II. Recognize basic themes of map making.
- III. Development of observation skills.
- IV. Brings direct interaction of surveying instruments like Theodolite with environment

DSE GROUP A -4: Fluvial Geomorphology: (DSE-2)

- I. Advanced knowledge in fluvial geomorphology develop advanced knowledge in fluvial geomorphology which deals with the action of the flow of water in the development of landform.
- II. Different mechanisms and processes both traditional and contemporary have been included to cover up the important aspects of the subject.
- III. Ability to understand process and mechanism involved in fluvial action for landform development.
- IV. Understand the river channel geometry

SEMESTER-VI

C-13: Regional Geography of India:

- I. In-depth knowledge of relief, climate, soil, natural vegetation, social and industries of India
- II. Conceptualize the regional approaches and to examine regional differentiation in the study of India
- III. Recognize regional identities and environmental dimension of regionalization to address the issues and concern needed for regional planning

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C-14: Field Work Field Report (Practical):

- I. Conducting field excursions and preparation of field report on research on problem in different areas of India
- II. Fieldwork helps in improving technical skills, group identity, and learning outcomes
- III. Field work is the process of observing and collecting data about people, cultures, and natural environments.
- IV. Experience real life problem and solving the same

DSE GROUP B- 1: Regional Planning: (DSE-3)

- I. Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development
- II. Analyzing the concept of regions and regionalization.
- III. Build an idea about theories and models for regional planning. Know about measuring development indicators.
- IV. They can know about delineation of formal regions by weighted index method and also delineation of functional regions by breaking point analysis.
- V. Understanding the contemporary problem of urban centre in India.

DSE GROUP B- 2: Agricultural Geography (DSE-3)

- I. Familiar with different agricultural region and determinants of agriculture
- II. Understanding the agricultural models of the world
- III. Development and revolution of agriculture in India

DSE GROUP B- 2: Political Geography: (DSE-4)

- I. Understand the state, nation, and nation-state concept
- II. Know about Geopolitics and related theories
- III. Provides critical insight on the spatial dimensions of political issues, such as how boundaries and territories are created and maintained, and how conflicts arise.
- IV. Understand the ways that people and governments control and dispute space, and particularly different types of territories

DSE GROUP B- 2: Hydrology and Oceanography (DSE-4)

- I. Analyse the concepts of Hydrology and Oceanography
- II. Emphasizing the significance of groundwater quality and its circulation
- III. Evaluate the role of different component of the global hydrological cycle.
- IV. Studying the behavior and characteristics of the global oceans.
- V. Realize the importance of water conservation.
- VI. Identify marine resources and characteristics of ocean waters.

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Here are some examples of course outcomes for Geography (Gen.) courses:

SEMESTER-I

Physical Geography:

- I. To understand the content and scope of physical geography
- II. To define the internal structure of the earth and concepts of geo-tectonics
- III. To understand the dynamic nature of the weather and climate.

SEMESTER -II

Human Geography

- I. To learn Nature of Human Geography and different branches.
- II. To understand the social and cultural characteristics
- III. To know about population dynamics and their settlement pattern.

SEMESTER III

General Cartography (Practical)

- I. To know about different map and map scale
- II. Mathematical calculation and drawing of map projection
- III. Representation of different geographical data with the help of different cartographic technique

Regional Planning and Development

- I. Types and characteristics of regional planning
- II. Need of regional planning
- III. Know about physical and agricultural region of India

SEMESTER-IV

Environmental Geography

- I. Understand the different element of environment
- II. Relationship between the man and environment
- III. To solve the environmental problem

Remote Sensing and GPS based Project Report

- I. To know about development of remote sensing

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- II. Ability to read and interpretation the photography
- III. Ability to identification of physical and cultural features of the earth
- IV. Uses of GPS

SEMESTER- V

Instruments based Project Report (Practical)

- I. Data collection of different weather instrument
- II. Prepare map using Prismatic Compass and Plane Table survey

Geography of India

- I. To understand the physical characteristics of India
- II. Population growth and distribution in India
- III. To understand the economy of India

Economic Geography

- I. To know about the fundamental concept of economic Geography
- II. Different activities of economic Geography
- III. Understand the theory of agriculture

Disaster Risk Reduction

- I. Difference between hazard and disaster
- II. To know about causes, impact and distribution of disaster in India
- III. To know about risk reduction and preparedness on or before disaster

Field Techniques and Survey based Project Report (Practical)

- I. To build the ability to observe different physical social and environmental issues
- II. Data collection and report writing ability
- III. To solve the problem of a particular issues

Disaster Management

- I. Difference between hazard and disaster
- II. To know about causes, impact and distribution of disaster in India
- III. To know about risk reduction and preparedness on or before disaster

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Geography of Tourism

- I. To learn nature and scope of tourism
- II. Classification and importance of tourism
- III. Understand the impact of tourism

Sustainability and Development

- I. To understand the definition and concept sustainability
- II. To know about sustainable goals
- III. Policies and programme of sustainable development