



**Name of the Programme: M.A./M.Sc. in Geography (CBCS)**

### **Programme Outcomes (POs)**

**After completing the Three-Year Undergraduate Programme in Geography, Students are expected to achieve the following Programme Outcomes:**

- PO1:** Knowledge/Academic expertise
- PO2:** Critical Thinking
- PO3:** Utilization of a range of Geospatial technologies
- PO4:** Social Interaction
- PO5:** Effective Citizenship
- PO6:** Ethics
- PO7:** Environment and Sustainability
- PO8:** Self-directed and Life-long Learning
- PO9:** Community engagement
- PO10:** Individuality and Teamwork
- PO11:** Competencies for employment
- PO12:** Competencies for Research

### **Programme Specific Outcomes**

The programme-specific outcomes of the Postgraduate Programme in Geography are listed below.

**PSO1: Disciplinary knowledge:** Postgraduates in Geography will possess a deep and comprehensive understanding of the principles, theories, and methodologies of the field of geography, including its sub-disciplines such as physical geography, human geography, and geo informatics. They will have a strong foundation in the theoretical and empirical underpinnings of geography, and be able to apply this knowledge to analyze and interpret environmental and social phenomena. They will also be able to articulate the relevance and significance of geography to contemporary environmental and social issues.

**PSO2: Geospatial literacy:** Postgraduates in Geography will possess a strong foundation in geospatial literacy, including the ability to analyze and interpret geospatial data, use geographic information systems (GIS), and apply remote sensing techniques. They will have a thorough understanding of the principles of cartography, geodesy, and spatial statistics, and be able to apply these principles to real-world problems involving either regional planning, fluvial morphological and disaster management.

**PSO3: Critical thinking and problem-solving:** Post graduates in Geography will be skilled critical thinkers and problem-solvers, able to identify and analyze complex environmental, social, and economic issues, and develop innovative and sustainable solutions. They will have experience in using qualitative and quantitative methods to collect and analyze data, and be able to communicate their findings effectively to diverse audiences.

**PSO4: Global and cultural competence:** Post graduates in Geography will have a global and cultural competence, with an understanding of the diverse cultural, social, and economic contexts in which environmental and social issues occur. They will have a nuanced understanding of the implications of cultural differences for environmental and social problem-solving.

**PSO5: Ethical and professional practice:** Post graduates in Geography will be committed to ethical and professional practice, with an understanding of the ethical and legal issues involved in environmental and social problem-solving. They will be able to work collaboratively and responsibly with colleagues and stakeholders, and have a commitment to lifelong learning and continuous professional development.

### Course Outcomes (COs)

**M.A./M.Sc. 1<sup>st</sup> Semester**

**Course Title: GEOMORPHOLOGY**

**Course Code: GG1C1**

*On completion of this course, student will be able to*

- CO1** Enhance their knowledge in the field of geomorphic concepts and its recent trends.
- CO2** Understand of diverse geomorphic processes acting on the earth and their role on the development of different landform under different geo-climatic conditions.
- CO3** Acquire knowledge about the various morphometric techniques and its applicability.

**Course Title: CLIMATOLOGY****Course Code: GG1C2***On completion of this course, student will be able to*

- CO1** Conceptualize the fundamentals of climate and weather and different climatic types.
- CO2** Focus on the nature and development of different atmospheric processes and whether phenomena over the surface of the earth.

**Course Title: PRACTICALS ON MORPHOMETRIC TECHNIQUES AND THEMATIC MAPPING****Course Code: GG1C3***On completion of this course, student will be able to*

- CO1** Familiarize themselves about morphometric techniques and thematic mapping.

**Course Title: CULTURAL GEOGRAPHY****Course Code: GG1D1***On completion of this course, student will be able to*

- CO1** Understand Cultural Geography as a new dimension in the discipline of Geography.
- CO2** Understand the evolution of Cultural Geography which includes the Old and the New Schools of Cultural Geography.
- CO3** Understand the main theoretical backgrounds.
- CO4** Understand the role of culture in shaping places, regions, and landscapes.
- CO5** Understand the production and diffusion of folk and popular culture.
- CO6** Appreciate culture from geographical perspective
- CO7** Understand the cultural issues of the North East region of India, which encompasses the contemporary issues of the region as a cultural entity as a whole.

**Course Title: GEOGRAPHY OF RESOURCES AND ECONOMIC DEVELOPMENT**  
**Course Code: GG1D2**

*On completion of this course, student will be able to*

- CO1** Understand the conceptual parameters and utilization pattern of different types of resources.
- CO2** Understand the geography of economic development and different types of economic activity.
- CO3** Acquire knowledge about the various aspects of industrial, agricultural and transport geography.

**Course Title: WORLD REGIONAL GEOGRAPHY**  
**Course Code: GG1D3**

*On completion of this course, student will be able to*

- CO1** Understand the concept of research and identification of overall process of designing a research work.
- CO2** Understand complete designing of research from statement of research problem to final thesis writing.
- CO3** Critically assess research methods pertinent to technology innovation research in the field of earth science.

**Course Title: APPLICATION OF REMOTE SENSING AND UNMANNED AERIAL VEHICLE IN GEO-SPATIAL ANALYSIS**  
**Course Code: GG1A1**

*On completion of this course, student will be able to*

- CO1** Understand the basic concepts of Remote Sensing and its applications.
- CO2** Understand the basic concepts of UAV systems design and its applications.

**M.A./M.Sc. 2<sup>nd</sup> Semester**

**Course Title: SOCIAL GEOGRAPHY OF INDIA**

**Course Code: GG2C1**

*On completion of this course, student will be able to*

- CO1** Acquire a basic introduction of Social Geography and to locate Social Geography amongst the other social sciences.
- CO2** Understand the various social aspects of the country from a geographical perspective.
- CO3** Learn about the relationships between the environment, development, modernization and societies.
- CO4** Understand how the various social issues are etched on the geography of the country.

**Course Title: FUNDAMENTALS OF GEOINFORMATICS**

**Course Code: GG2C2**

*On completion of this course, student will be able to*

- CO1** Understand the Fundamentals & Physics of Remote Sensing.
- CO2** Understand the Remote Sensing Platforms and Sensors.
- CO3** Acquire knowledge about the Digital Image Processing And Information Extraction from Satellite Images.
- CO4** Understand the Fundamentals of Geographic Information System.

**Course Title: PRACTICAL ON SURVEYING AND SPATIAL PATTERNS**

**Course Code: GG2C3**

*On completion of this course, student will be able to*

- CO1** Develop skills among the students regarding the use of different surveying techniques.
- CO2** Acquire knowledge about different field survey methods.

**Course Title: FUNDAMENTALS OF REGIONAL PLANNING****Course Code: GG2D1***On completion of this course, student will be able to*

- CO1** Improve the conceptual parameter of the learners in the field of Region, methods of regionalization, Regional planning and development.
- CO2** Understand the importance of regional development in the removal of regional disparities in terms of development.

**Course Title: FUNDAMENTALS OF FLUVIAL GEOMORPHOLOGY****Course Code: GG2D2***On completion of this course, student will be able to*

- CO1** Understand the basic concept of fluvial geomorphology.
- CO2** Apply the various modern techniques applied in fluvial geomorphological study.
- CO3** Learn about the different processes acting in a channel and about channel dynamics.

**Course Title: FUNDAMENTALS OF DISASTER MANAGEMENT****Course Code: GG2D3***On completion of this course, student will be able to*

- CO1** Understand the basic concept of hazards and disasters.
- CO2** Acquire concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by anthropogenic activities
- CO3** Critically assess DRR with emphasis on disaster preparedness, response and recovery.

**Course Title: ENVIRONMENT AND DEVELOPMENT****Course Code: GG2G1***On completion of this course, student will be able to*

- CO1** Develop conceptual and theoretical ideas of environment as well as relationship between man and environment in different geo climatic regions.
- CO2** Understand the nature and intensity of some burning environmental issues at local, regional and global level along with mitigation programs and policies.

**Course Title: CLIMATOLOGY AND OCEANOGRAPHY****Course Code: GG2G2***On completion of this course, student will be able to*

- CO1** Conceptualize the fundamentals of climate and weather and different climatic types.
- CO2** Focus on the nature and development of different atmospheric processes and phenomena over the surface of the earth.
- CO3** Understand various properties of oceans and their recent changes.

**Course Title: GEOGRAPHY OF GENDER STUDIES****Course Code: GG1D1***On completion of this course, student will be able to*

- CO1** Understand the basic concepts and theories of feminism.
- CO2** Understand how colonialism through resource ownership has influenced the concept of feminism in Geography.
- CO3** Theorize and understand the concept of Queer.
- CO4** Understand how spaces can be gendered and how gender relationships can be varied with spatial variations.
- CO5** Understand the relationship between gender and environment and also gender and architecture.
- CO6** Equip themselves with tools and methodologies to carry forward research and understanding of gender issues.

**M.A. /M.Sc. 3<sup>rd</sup> Semester****Course Title: ADVANCED GEOINFORMATICS****Course Code: GG3C1***On completion of this course, student will be able to*

- CO1** Understand the spatial distribution and spatial-temporal variations of land and resources in India.
- CO2** Acquire the knowledge of handling geospatial technology in solving spatial problems.
- CO3** Apply modern GIS and RS technology in site selection of development facilities or projects.

**Course Title: RESEARCH METHODOLOGY IN GEOGRAPHY****Course Code: GG3C2***On completion of this course, student will be able to*

- CO1** Understand the concept of research and identification of the overall process of designing a research work.
- CO2** Understand complete designing of research from the statement of the research problem to final thesis writing.
- CO3** Critically assess research methods pertinent to technology innovation research in the field of earth science.

**Course Title: FIELD STUDY****Course Code: GG3C3***At the end of this course, student will be able to*

- CO1** Conduct an extensive survey of a contiguous wider region and identify salient landforms; their genesis and their impact on human life, flora and fauna.

**Course Title: ADVANCED REGIONAL PLANNING****Course Code: GG3D1***At the end of this course, student will be able to*

- CO1** Understand the field of different planning process for the development of problem region and special purpose region.
- CO2** Conceptualize with the hierarchical order of different planning activity and its role of regional development.

**Course Title: ADVANCED FLUVIAL GEOMORPHOLOGY****Course Code: GG3D2***On completion of this course, student will be able to*

- CO1** Know about the anthropogenic impact on river basin and also about the various fluvio geomorphic hazards.
- CO2** Acquire knowledge about the fluvial geomorphology of the Brahmaputra valley and about its flood geomorphology.



**Course Title: DISASTER MANAGEMENT METHODS AND TECHNIQUES****Course Code: GG3D3***On completion of this course, student will be able to*

- CO1** Know the methods and techniques applied during the process of Disaster Risk Reduction.
- CO2** Critically assess DRR with emphasis on disaster preparedness, response and recovery.

**Course Title: HYDROLOGY (THEORY)****Course Code: GG3G1***On completion of this course, student will be able to*

- CO1** Understand the nature of Hydrology.
- CO2** Recognize the relationship between Hydrology and Atmosphere.
- CO3** Know about the concept of hydrograph and runoff.

**Course Title: APPLICATION OF GEOINFORMATICS IN PETROLEUM EXPLORATION****Course Code: GG3G2***On completion of this course, student will be able to*

- CO1** Understand the Fundamentals & Physics of Remote Sensing.
- CO2** Understand the Remote Sensing Platforms and Sensors.
- CO3** Acquire knowledge about the Digital Image Processing And Information Extraction from Satellite Images.
- CO4** Understand the Fundamentals of Geographic Information System.
- CO5** Get hands on training on application of Geo informatics in Petroleum Exploration.

**Course Title: GEOGRAPHY OF TRIBALSTUDIES****Course Code: GG3D3***On completion of this course, student will be able to*

- CO1** Locate tribes in geographical studies.
- CO2** Understand the meaning, concept and characteristics of tribes.
- CO3** Gain the theoretical understanding in the formation and construction of tribal communities in India.
- CO4** Learn about the migration, settlement and the geographical patterning of tribes in the country.

- CO5** Appreciate the tribal variations in the country with special reference to the varied tribal communities of North East India.
- CO6** Understand the nexus of tribes, development, ensuing problems and welfare policies.

**Course Title: PRACTICALS ON GEOINFORMATICS**

**Course Code: GG3A1**

*On completion of this course, student will be able to*

- CO1** Apply GIS and Remote Sensing technology in areas like environment, urban planning and flood risk assessment etc.
- CO2** Develop skills in handling the instruments, tools and techniques while using geo-spatial technology.
- CO3** Prepare for national and global employability.

**M.A./M.Sc. 4<sup>th</sup> Semester**

**Course Title: GEOGRAPHIC THOUGHT**

**Course Code: GG4C1**

*On completion of this course, student will be able to*

- CO1** Gain the knowledge of the historical evolution of Geography as a discipline.
- CO2** Understand the important paradigm shifts in Geography.
- CO3** Understand the various routes and methodologies in the analysis of geographic problems.
- CO4** Understand the contemporary geographical trends.

**Course Title: REGIONAL GEOGRAPHY OF INDIA**

**Course Code: GG4C2**

*On completion of this course, student will be able to*

- CO1** Understand the spatial distribution and spatio-temporal variations of land and resources in India.
- CO2** Comprehend the knowledge of north eastern part of India as a distinct regional unit.

**Course Title: DISSERTATION/PROJECT WORK****Course Code: GG4C3***On completion of this course, student will be able to*

- CO1** Identify Geographic problem areas
- CO2** Builds skills in developing strategies, policies, and planning through surveying and research in the area.
- CO3** Enhance the skills of scientific reporting.

**Course Title: PRACTICALS ON REGIONAL PLANNING****Course Code: GG4D1***On completion of this course, student will be able to*

- CO1** Have skills in the field of regional planning, through different methods of regionalization and spatial concentration.

**Course Title: PRACTICAL ON FLUVIAL GEOMORPHOLOGY****Course Code: GG4D2***On completion of this course, student will be able to*

- CO1** Identify the relationship of discharge with other channel variables.
- CO2** Understand the various techniques used in analysing the frequency of flood.
- CO3** Develop skills in handling the instruments, tools and techniques used in studying fluvial geomorphology.

**Course Title: APPLICATION OF GEOGRAPHIC INFORMATION SYSTEM AND REMOTE SENSING IN DISASTER RISK REDUCTION (DRR)****Course Code: DSE 403***On completion of this course, student will be able to*

- CO1** Understand the methods and techniques applied during the process of Disaster Risk Reduction.
- CO2** Apply the software packages for assessment of DRR with emphasis on disaster preparedness, response and recovery.

\*\*\*\*\*