M.A /M. Sc. I SEM I & II
2024-25

MT-101: Geomorphology

Course Outcomes (COs): After completing the course, students will be able to

1. Understand the nature and scope of geomorphology and establish the relationship between the tectonism and geomorphology with the knowledge of interior of the Earth.

2. Look into the evolution of continents and ocean basins with continental drift theory.

3. Know the endogenetic and exogenetic forces controlling landform development with special reference to the denudation processes.

4. Verify the impact of dynamic agencies on denudation and their work.

5. Understand the cycle of erosion with different views with special reference to hill slope development.

6. See the application of geomorphology in the view of anthropogenic and environmental geomorphology

MT-102: Principles of Climatology

Course Outcomes (COs): After completing the course, students will be able to

1. Distinguish the weather and climate with an understanding of structure and composition of Atmosphere;

2. Understand the variations of weather systems in terms of Stability and Instability of atmosphere;

3. Enable the students to understand the vertical and horizontal distribution of atmospheric air;

4. Get complete information about Atmospheric Disturbances in terms of cyclones and anti-cyclones;

5. Understand the regional and seasonal variations of weather systems in India;

6. Know the significance of synoptic Climatology in pollution studies and navigation

MT-103: Economic Geography

Course Outcomes (COs): After completing the course, students will be able to

☐ Understand the concepts and basis of economic processes

☐ Get acquainted with theories and models in economic geography

☐ Get comprehensive knowledge of World energy resources, situation and distribution

☐ Know about the Nature, scope and Principles of Industrial Geography

☐ Understand transport and Trade policies of country

☐ Get detail knowledge of economic power determinants of country and able to analyze the economic development of country.

ET-101: Population Geography and Human Resource Development

Course Outcomes (COs): After completing the course, the students will develop an aptitude to:
1. Infer factors influencing population distribution and growth;

2. Compute and explore fertility, mortality and migration.

3. Analyse the population-resource regions and discover problems arising due to over and under population.

4. Understand and create awareness about provincial aspects of gender equity, status of women, social well-being and quality of life.

5. Acquire skill to describe regional patterns of population composition.

6. Obtain expertise to compute Human Development Index for micro, meso and macro regions.

ET-102: Settlement Geography
Course Outcomes (Cos): After completing the course, students will be able to
1. Know the fundamentals of settlement geography

2. Understand the approaches to rural settlement geography; rural services; hierarchy; morphology etc.

3. Know the concept and processes of urban settlement studies; urban problem & their planning; concept smart cities, urban agriculture, etc.

4. Understand the theories and models of settlement geography to understand the structure of settlements.

MP-101: Research Methodology in Geography
Course Outcomes (COs): After completing this course, the students will develop skill to:
1. Identify the objectives and significance of research in geography;

2. Prepare schedule and questionnaire in geography;

3. Collect data of physical and human elements;

4. Tabulate data, formulate research design and represent data by using most appropriate methods;

5. Effective writing, maintaining research ethics and academic integrity;

6. Write abstracts, thesis, project report and research papers

MP-102: Computer Applications in Geography
Course Outcomes (COs): After completing the course, students will be able to
1. Learn the representation of geographic data using various computational methods;

2. Develop writing, editing, and presentation skill for representation of geographical information;

3. Compute statistical parameters with the help of computer;

4. Prepare and design maps and graphs with the help of computer software;

5. Apply computational techniques relevant in the discipline of Geography;

6. Know about sources and uses of online educational resources and e-learning methods;

SEM II

MT-201: Advanced Cartography and Surveying
Course Outcomes (COs): After completing the course, students will be able to
1. Understand basic principles of cartography and surveying
2. Gain understandings of various cartographic methods and techniques

3. Acquaint with the skills of digital cartography

4. Identify sources and types of errors occurs during surveying

5. Get familiar with the basic aspects of linear, vertical and angular measurements of surveying.

MT-202: Climate Change and Disaster Management
Course Outcomes (COs): After completing the course, students will be able to

1. Recognize the importance of climate on human life;

2. Identify and categorize climate types and climatic regions of the world;

3. Get comprehensive knowledge about causes and impacts of atmospheric pollution, GHGs emission, ozone layer depletion, acid rain and el-nino;

4. Know about the history, recent trends, impacts and dynamics of climate change on earth;

5. Assess future risks of climate change and the adaptation and mitigation options;

6. Understand causes, consequences and vulnerabilities of various natural and man-made disasters;

7. Plan for prevention, preparation and mitigation of disasters

ET-201: Fundamentals and Applications of GIS and GPS
Course Outcomes (COs): After completing the course, students will be able to

1. Understand the basic concepts of Geographical Information System and GPS.

2. Know various applications of GIS and GPS in various fields.

3. Familiar with modern techniques of geography.

4. Apply these skills in professional careers.

ET-203: Tourism Geography
Course Outcomes (COs): After completing the course, students will be able to

1. Understand the concepts and components in tourism geography

2. Know about importance of geography in tourism.

3. Know about pattern & tourism in the world and impact of globalization

4. Understand different elements of marketing in tourism

5. Understand tour and travel agency

6. Get detail knowledge about planning process in tourism

7. Analyse the growth and development of tourism in India.

EP-201: Introduction to GIS Software and GPS
Course Outcomes (COs): After completing the course, students will be able to

1. Familiarize with QGIS software and tools.

2. Apply Comprehensive knowledge of GIS software and GPS for analysis of geographical data and to solve real world problems

3. Understand the role of GIS as decision support system and to develop various model for GIS spatial analysis.

4. Examine the various functions of GPS for surveying and mapping.

5. Develop practical skills in spatial data acquisition, management, and analysis.

6. Learn to create and visualize maps using GIS techniques.

EP-203: Practical in Tourism Geography
Course Outcomes (COs): After completing the course, students will be able to

1. To educated students in map reading for tourism activities.

2. To Make them expertise in tour management

3. To make them expertise in travel management

4. To create awareness about use of computer and internet for tourism and travel business.

MP-203: Advanced Surveying
Course Outcomes (COs): After completing the course, students will be able to
1. Familiar with various advance surveying methodologies
2. Develop practical skills as well as organisational and interpersonal abilities
3. Perform survey using advanced surveying instruments like theodolite, total station, DGPS and drone
4. Create a map based on a survey

FP-201: Field Project
Course Outcomes (COs): After completing the course, students will be able to
1. Carry out field project on their own;
2. Formulate project design and methodologies;
3. Organize and carry out field visits, collect field data and/or conduct review of literature;
4. Effective writing and dissemination of project output having scientific and/or social relevance.

OJT-201: On Job Training
Course Outcomes (COs): After completing the course, students will be able to
1. Improve their professional skills related to their employability;
2. Effectively manage the assigned workload and complete given tusk;
3. Learn new concept and improve their knowledgebase;
4. Do team work and manage on job practical difficulties

M.A./M.Sc. Geography Part II Semester III

(NEP-2020)
(Introduced from Academic Year 2023-24)

Title of Course: Geohydrology and Oceanography
Course Code: MMT-301 (MSU0325MML919I1)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Know about the development of methods of scientific observation in hydrology and Oceanography;
2. Understand the origin, importance and distribution of water on Earth;
3. Learn about the hydro-geological, coastal and marine processes, landforms and resources;
4. Recognize the role of oceans to deal with the vulnerability of the dynamic earth system;
5. Comprehend about the recent trends in research in Geohydrology and Oceanography;

Title of Course: Fundamentals of Remote Sensing and DIP
Course Code: MMT-302 (MSU0325MML919I2)
Total Credits: 04

Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Understand the principles and concepts of remote sensing and its role in capturing and analyzing Earth's data.

2. Describe the different types of remote sensing platforms, sensors, and image acquisition systems used in the field.

3. Interpret and analyze aerial photographs and satellite images using visual interpretation techniques.

4. Apply digital image processing techniques for feature extraction, including texture, shape, and spectral indices.

5. Explore emerging trends and technologies in remote sensing and digital image processing.

Title of Course: Photogrammetry, Remote Sensing and DIP
Course Code: MMPR-303 (MSU0325MMP919I1)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Understand the fundamental principles and concepts of photogrammetry, remote sensing, and digital image processing.

2. Describe the various sensors, platforms, and techniques used in photogrammetry and remote sensing.

3. Apply photogrammetric techniques to extract three-dimensional information from aerial photographs and digital images.

4. Apply digital image processing techniques for enhancing and analyzing remote sensing data.

5. Apply the knowledge of remote sensing and DIP in various thematic studies

Title of Course: Statistical Techniques in Geography
Course Code: MMPR-304 (MSU0325MMP919I2)
Total Credits: 02
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Understand the importance and use of statistical techniques in geography
2. Examine relationship between two or more variables with correlation and regression analysis
3. Learn statistical methods and techniques using computer
4. Apply comprehensive knowledge of statistics for analysis of geographical data

Title of Course: Geography of Environment
Course Code: MET-306 (MSU0325MET919I2)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Know about contents and methods of Geography of Environment as an academic and professional discipline.
2. Understand elements of environment and acquire knowledge about biodiversity
3. Get knowledge about natural hazards and management
4. Understand the various environmental issues and policies

Title of Course: Political Geography
Course Code: MET-307 (MSU0325MET919I3)

Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Identify the geostrategic locations and areal extent of counties in the world
2. Understand the correlation between geography and political actions and processes
3. Get familiar with the electoral system in India
4. Evaluate intrastate and interstate conflicts and disputes of India

Title of Course: Research Project – I
Course Code: RP-308 (MSU0325RPP919I1)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Recognize the objectives and significance of research work;
2. Formulate research design and methods;
3. Organize and carry out field visits, collect field data and/or conduct review of literature;
4. Effective writing, maintaining research ethics and academic integrity;
5. Preparation and dissemination of research output having scientific and/or social relevance

M.A./M.Sc. Geography Part II Semester IV
(NEP – 2020)
(Introduced from Academic Year 2023-24)

Title of Course: Regional Planning and Development
Course Code: MMT-401 (MSU0325MML919J1)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Understand the basic concepts in regional planning
2. Understand different methods in order to compute regional development
3. Get acquainted with theories and models for regional development
4. Get a specialized knowledge of policies and experiences of regional planning in India.

Title of Course: Development of Geographical Thought
Course Code: MMT-402 (MSU0325MML919J2)
Total Credits: 04
Course Outcome (COs): Upon successful completion of this course, students will be able to:
1. Acquire knowledge about the historical development of the subject during different time scales.
2. Apprehend the place of geography in the field of science, social science and natural science.
3. Acquire knowledge about the historical development of the subject during different time scales.
4. Understand all the concepts of philosophy in geography.
5. Recognize different types of dualism and find solutions to terminate them by applying various types of scientific explanations.
6. Become acquainted with the variety of perspectives in Geography.

Title of Course: Agricultural Geography
Course Code: MET-403 (MSU0325MEL919J1)

Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Know about nature, scope and significance of agricultural geography as an academic and professional discipline.
2. Understand the fundamental concept, crop combination, diversification, agricultural productivity and study the determinants of agricultural patterns.
3. Get knowledge about agricultural systems of the world.
4. Understand the agrarian revolution, socio-economic constraints, agricultural problems and policies

Title of Course: Data Representation Methods: Physical Geography
Course Code: MEPR-406 (MSU0325MEP919J1)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Know the methods of representation of relief.
2. Understand the topographical maps.
3. Identify and map relief features.
4. Analyse drainage basin morphometry.
5. Understand the formats of Indian daily weather report and reading of weather signs and symbols
6. Represent meteorological elements diagrammatically and interpretation of results.
7. Know methods of measurement of meteorological elements
8. Analyse interrelationship between various meteorological elements
9. Analyse present and future trends of meteorological elements.

Title of Course: Data Representation Methods – Human Geography
Course Code: MEPR-407 (MSU0325MEP919J2)
Total Credits: 04
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Know basic cartographic techniques of human geography
2. Make graphical representation of geographical data
3. Analyse demographic, social, economic, agricultural and industrial data
4. Prepare suitable maps and diagrams for effective visual representation

Title of Course: Research Project – II (Dissertation)

Course Code: RP-408 (MSU0325RPP919J1)
Total Credits: 06
Course Outcomes (COs): Upon successful completion of this course, students will be able to:
1. Recognize the objectives and significance of research work;

2. Formulate research design and methods;

3. Organize and carry out field visits, collect field data and/or conduct review of literature;

4. Effective writing, maintaining research ethics and academic integrity;

5. Preparation and dissemination of research output having scientific and/or social relevance;

6. Assimilate cultural, economic and environmental diversity encountered during study tour / Geographical Excursion.