

University of Science & Technology Meghalaya

Department of Earth Science

M.A./M.Sc. Geography

POs , PSOs, COs

SCHOOL OF APPLIED SCIENCES



➤ **Programme Outcomes of M.A./M.Sc. Geography:**

1. Students will develop the ethical aptitudes and dispositions necessary to acquire and hold leadership positions in industry, government and professional organizations.
2. Students will be able to synthesize geographic knowledge and apply innovative research strategies to solve problems in resource conservation, environmental change and sustainable development within the community, region and world.

➤ **Programme Specific Outcomes of M.A./M.Sc. Geography:**

1. Students will acquire an understanding of and appreciation for the relationship between geography and culture.
2. Students will have a general understanding of physical geographic processes, the global distribution of landforms and ecosystems and the role of the physical environment on human populations.
3. Students will be able to think in spatial terms to explain what has occurred in the past as well as geographic principles to understand the present and plan for future.

➤ **Course Outcomes of M.A./M.Sc. Geography:**

M.A./M.Sc. Geography(1stSemester)		
Course Code	Course Name	Course Outcomes
MGE 101	Fundamentals of Geomorphology	<ol style="list-style-type: none"> 1. Primary objective of this course is to give basic concepts of geomorphology 2. Students will learn different endogenic and exogenic processes. 3. Students will have knowledge on landform structure & factors controlling landform development 4. Students will understand cycles of landform development.
MGE 102	Geographical Thoughts	<ol style="list-style-type: none"> 1. One objective is to give knowledge about historical developmental concepts of Geography 2. Students will know theories of Geography 3. Students will know modern concepts of Geography 4. Students will understand contemporary trends on the topic
MGE 103	Regional Geography: India & NE India	<ol style="list-style-type: none"> 1. Students will know physical basis of Geography of India 2. Students will acquire knowledge on population economy of India 3. Students will know physical basis of Geography of North East India 4. Students will get knowledge on population economy of North East India

MGE 104	Introduction to Environment and Ecology	<ol style="list-style-type: none"> 1. This course will give knowledge on concept of ecosystem and biosphere 2. Knowledge on different ecosystems will be easy 3. Understanding environmental problems will be easy 4. Students will come to know about environmental issues, management and sustainability.
MGE 105	Cartographic Techniques-I(Practical	<ol style="list-style-type: none"> 1. Students will learn practical knowledge on morphometric analysis from topographical sheets 2. Students will learn preparation of climatic maps and diagrams 3. Students will know on zoo-geographical regions of the world 4. Students will know soil distribution of India and the world.
M.A./M.Sc. Geography(2ndSemester)		
Course Code	Course Name	Course Outcomes
MGE 201	Climatology and Oceanography	<ol style="list-style-type: none"> 1. Student will learn basic concepts and classification of climatology 2. Students will understand basic concepts and classification of oceanography 3. This course will provide knowledge on applied climatology 4. Students will have knowledge on applied oceanography
MGE 202	Socio-Cultural and Political Geography	<ol style="list-style-type: none"> 1. Student will learn socio-cultural study of the spatial distribution of ethnicity 2. Students will understand cultural association 3. Understanding political geography will be easy 4. Students will understand geopolitical significance of contemporary India
MGE 203	Geography of Rural and Urban Development	<ol style="list-style-type: none"> 1. Students will have knowledge about rural development 2. Students will understand the issues of rural development 3. Students will understand urban planning 4. Students will have knowledge about management of rural and urban issues.
MGE 204	Fundamentals of Cartography	<ol style="list-style-type: none"> 1. Students will learn the art and science of making maps. 2. Students will understand the principles and different techniques for map creation 3. Students will get knowledge about representation of real world phenomena through maps. 4. Students will learn manual and digital techniques of map making.
MGE 205	Cartographic Technique-II	<ol style="list-style-type: none"> 1. Students will be familiar with different practical

	Practical	<p>analysis of the subjects of Socio-culture, Political and different Cartographic techniques.</p> <ol style="list-style-type: none"> Students will learn to apply surveying techniques. Students will be able to analyse various climatic parameters and their significance Students will understand various aspects of map projection
M.A./M.Sc. Geography(3rdSemester)		
Course Code	Course Name	Course Outcomes
MGE 301	Research Methodology	<ol style="list-style-type: none"> Students will have a background and awareness of the nature of research process and inquiry. It will expose the student to the methodological problems encountered in interdisciplinary research. Students will have knowledge about research design. Students will understand the significance and application of quantitative aspects in research.
MGE 302	Quantitative Techniques	<ol style="list-style-type: none"> The main objective of this paper is to give understanding of quantitative techniques in research. Students will understand qualitative processing and analysis of data for quality research work. Students will learn the application of quantitative techniques for large data set analysis. Students will learn to implement suitable quantitative techniques for quality research.
MGE 303	Fundamentals of Geoinformatics	<ol style="list-style-type: none"> The main objective is to appraise the benefits of geoinformatics in geographical studies. To provide direction to take up research on thrust areas for future development in geoinformatics and its application. Students will understand the functioning of GPS and Global navigation system. Students will have a good understanding about remote sensing techniques and its application.
MGE 304 (A)	Regional Planing: Principles, Concepts and Theories	<ol style="list-style-type: none"> One objective of this course is to give students an idea about the concept of region and regional planning. Students will have an understanding about need of planning for the development of a region. Students will have knowledge about planning at world as well as neighbourhood level. Students will learn various methods and techniques of regional planning.

MGE 304 (B)	Hazards and Disaster Management: Basic Concepts	<ol style="list-style-type: none"> 1. One objective is to provide indepth knowledge on various types natural, hydro-meteorological and human induced disasters. 2. Students will understand the need of management in hazards and disaster. 3. Students will have knowledge about application of hazard mitigation measures. 4. Another objective is to provide a world scenario of hazard and disaster events.
MGE 304 (C)	Geoinformatics: Principles and Techniques of Remote Sensing	<ol style="list-style-type: none"> 1. To understand the principles and techniques of Remote Sensing. 2. Students will learn to develop competency in data processing and analysis by using the science and technology of geoinformatics. 3. Students will learn Digital Image Processing: Processing: Processing: Data Data Preparation 4. Students will learn image post classification analysis.
MGE 305	Practical: Geoinformatics (General)	<ol style="list-style-type: none"> 1. One objective is to understand the practical knowledge of geospatial technology. 2. Students will learn to develop competency in data processing. 3. Students will learn analysis by preparing maps and graphs. 4. Students will learn to apply remote sensing techniques.
MGE 306	Northeast India: Land, People and Culture (Multidisciplinary Course I)	<ol style="list-style-type: none"> 1. To understand the biogeography of NE India. 2. To understand the climate, agriculture of the region. 3. To have a better understanding of ethnicity, linguistics, and cultural diversity of Northeast Region of India. 4. To understand the economy and geo- politics of the region.
M.A./M.Sc. Geography(4thSemester)		
Course Code	Course Name	Course Outcomes
MGE 401	Geography of Economic Activities	<ol style="list-style-type: none"> 1. To deal with the scope and approaches in economic geography 2. To study models of agricultural systems. 3. To deal with classification of industries and also different industrial approaches. 4. To aware students about different transportation model.
MGE 402 (A)	Regional Planning: Practices in India and Selected Countries	<ol style="list-style-type: none"> 1. The objective of this paper is to give students an idea about the different planning process in India. 2. To aware them about different problem and

		<p>prospects of regional planning in India.</p> <ol style="list-style-type: none"> 3. To deal with different resource planning and management process in India. 4. To aware them about different planning process of developed country like USA.
MGE 402 (B)	Hazards and Disaster Management: Preparedness and Mitigation	<ol style="list-style-type: none"> 1. To aware students about the different disaster preparedness techniques. 2. Students should know the role and responsibilities of different government agencies during hazards and disasters. 3. To aware students about the modern technology to tackle disasters. 4. To give idea about different hazard mitigation techniques.
MGE 402 (C)	Geoinformatics: Principles and Techniques of GIS and GPS	<ol style="list-style-type: none"> 1. To aware students about fundamentals of Geodesy. 2. Students know about different database management in geoinformatics. 3. The know how to create link between GIS and GPS techniques. 4. To give idea about different spatial modeling and analysis techniques in GIS.
MGE 403 (A)	Regional Planning: Rural and Urban Development Planning in India	<ol style="list-style-type: none"> 1. The objective of this paper is to give students an idea of rural development in developed and developing countries. 2. To aware about the concept of Economic liberalization and regional disparities in India and NE India. 3. To give idea about the fundamentals of urban development planning. 4. To aware them about urban developmentandassociated problems in North East India
MGE 403 (B)	Hazards and Disaster Management: Issues and Policies	<ol style="list-style-type: none"> 1. To provide depth knowledge on various types of rehabilitation, reconstruction and recovery. 2. To aware them about different policies of disaster management and local knowledge. 3. To aware them with various case studies on disasters in India. 4. To give students idea about causes, consequences and mitigation in North East India.
MGE 403 (C)	Geoinformatics: Applications in Major Areas	<ol style="list-style-type: none"> 1. To appraise the benefits of geoinformaticsfor natural resources monitoring and management. 2. To give idea about geoinformatics for environmental studies, hazards and disaster management.

		<ol style="list-style-type: none"> 3. To aware about different geoinformatics application in planning and development. 4. To study geoinformatics for drainage basin and hydrological analysis.
MGE 404 (A)	Practical: Regional Planning	<ol style="list-style-type: none"> 1. The objective of this paper is to make students familiar with different practical analysis in regionalisation methods. 2. To aware them about different parameters of network analysis. 3. To give idea about different crop combination methods. 4. To aware them about delimitation of influence areas of nodal centers.
MGE 404 (B)	Practical: Hazards and Disaster Management	<ol style="list-style-type: none"> 1. The objective of this paper is to make students familiar with major crustal plates of earth and their relationships with earthquake. 2. To know the major earthquake zone of India. 3. To aware them about different flood and landslide hazard zone of India and North-East India. 4. Institutional survey on disaster preparedness and mitigation (hospitals / Schools).
MGE 404 (C)	Practical: Geoinformatics	<ol style="list-style-type: none"> 1. To enhance capacity building in different remote sensing techniques. 2. To give idea about Aerial Photographs. 3. To aware students about different GIS practical work. 4. To teach them use of GPS in collecting coordinates and preparing map using GIS softwares.
MGE 405	Dissertation	<ol style="list-style-type: none"> 1. This course allows students to identify and design a research problem related to environment and ecology/ disaster management / socio-cultural issues/ urban planning /rural development/ regional planning. 2. It allows students to apply theoretical and practical knowledge to carry out a research work on a topic of physical and human geography. 3. This course allows students to utilize various tools and techniques to analyse the research problem. 4. Training of students on how to present their research work and findings via presentation and write-ups.