



**TRIPURA UNIVERSITY**  
**Department of Geography and Disaster Management**

M.Sc. in Geography and Disaster Management

**Programme Specific Outcome**

At the end of the Programme student-

- Acquire knowledge in quantitative techniques and Cartography.
- Expertise to analyse Remote Sensing data (Satellite images) and GIS mapping.
- Expertise in small research project, field survey, and report writing etc.
- Acquire the knowledge on physical, human and applied fields of geography.
- Prepare for facing competitive exams like UPSC, TPSC, TET, SSC, PGT, TGT, etc.

**SEMESTER I- 21Credits (Core Course (C): 13 Credits; Foundation Course (F): 4 Credits, Elective (E): 4 Credit)**

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 701C	Geomorphology	4			4	100

**At the end of the course student-**

- Acquire knowledge on the relationship between geomorphic processes and resultant landforms on the earth's surface.
- Could explain the mechanism of plate movement and related tectonic activities.
- Could assess the denudation processes and relate them in the real field.
- Well versed with evolutionary concepts of various landforms from different climatic regions.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 702C	Population & Settlement Geography	4			4	100

**At the end of the course student-**

- will be able to learn about population data sources
- have an idea about the population composition of the world and India.
- Understand the trends and patterns of the components of population change in India and the world.
- Learn the concepts of the population theories and the population policies and link with population characteristics.
- Get an idea about the settlement system both for rural and urban regions.
- Understand the spatial distribution of rural settlements and can recognize their shape, size and patterns.
- Can correlate environmental impact on house types in different parts of India
- Can identify different urbanized regions, can categorize settlement hierarchy and size-class distribution of towns.

- Acquire knowledge about new internal structure of towns and various models of development of urban areas.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 703C	Statistical Techniques and Cartography (Practical)			5	5	100

**At the end of the course student-**

- Are able to apply various statistical and cartographic techniques to deal with the available data in resolving geographical issues.
- Can understand the techniques of sampling.
- Knew how to correlate two or more variables.
- Acquire knowledge about spatial measurements of network analysis.
- Gets knowledge how to solve geographical data matrix.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 704E	Agricultural Geography	4			4	100

**At the end of the course student-**

- will be able to understand about the determinants of agricultural land use.
- Have an idea on the concepts, trends and patterns of land holdings
- Will know about the agricultural regions in the world and in India.
- Will have knowledge about different models in agricultural geography.
- Will know about different agricultural revolution and use of technology in agriculture.
- Will know about the importance of sustainable agriculture.
- Will learn about the agricultural developments and regional imbalances in India and the agricultural problems in India.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 705E	Regional Geography of India	4			4	100

**At the end of the course student-**

- To get Knowledge of regions and regionalization of India with changing time scale.
- To understand the regional issues, conflicts and regional disparities.
- To comprehend the concept of Regional Cooperation.
- To get the Policy Framework in Regional Development.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 706E	Environment & Ecosystem	4			4	100

**At the end of the course student-**

- Students will be able to recognize the physical and socio-cultural components of environment.
- Students will learn the various approaches of studying man-environment relation.

- Students will get knowledge of various ecosystems of the earth.
- Students will get updated with the various International and National acts, conventions and treatise for the protection of environment.

**SEMESTER II- 25 Credits (Core Course (C): 17 Credits; Elective Paper from other department (E): 4 Credits, Elective (E): 4 Credit)**

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 801C	Climatology	4			4	100

**At the end of the course student-**

- Acquire knowledge about the Earth's atmosphere.
- Apply knowledge about atmospheric pressure and winds influences on climate.
- Understand the role of atmospheric moisture,
- Apply the learned knowledge in day-to-day life role of weather and climatic changes.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 802C	Fundamentals of Remote Sensing and GIS	4			4	100

**At the end of the course student-**

- Acquire knowledge about analyze and interpretation of aerial photographs and understand the principles of remote sensing, sensor resolutions etc.
- Acquire knowledge about image interpretation, image classification, and major satellite sensor and utilizations.
- Know to use Geographic Information System (GIS) software for contemporary mapping skills.
- Apply GIS to the preparation of different thematic maps.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 803C	Remote Sensing and GIS (Practical)			5	5	100

**At the end of the course student-**

- Apply Aerial Photographs for preparation of LULC map.
- Apply knowledge to prepare density slicing, supervised and unsupervised classification maps through satellite images in ILWIS software.
- Apply knowledge to digitize satellite images for prepare the maps through QGIS.
- Apply knowledge for preparation and analyzing maps like e the DEM, DTM, TIN etc through QGIS software.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 804C	Social and Political Geography	4			4	100

**At the end of the course student-**

- will be able to learn and understand about the nature and scope of social geography and its relationship with other disciplines.
- Will get an idea about the development of social geography in India.
- Will be able to identify the patterns of geographical distribution of tribes, caste, languages and religions.
- Will be able to identify the socio-cultural regions of India.
- will be able to learn and understand nature and scope of political geography and its relationship with other disciplines.
- Will understand the theories of political geography.
- Will understand the concepts and classification of state, nation, frontiers, boundaries, territory etc.
- Will get an idea about electoral geography.
- Will understand the geostrategic views.
- Will have an idea about the conflicts and disputes based on religion, language, resources and the conflict resolution through global and regional association and organizations.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 805E	Geography of North-East India & Tripura	4			4	100

**At the end of the course student-**

- Acquire knowledge on physical environment of North-east India in general and Tripura in particular.
- Develop ideas on natural resource bases and their management for regional development.
- Know demographic pattern of the region with the history of abnormal growth of population in Tripura.
- Idea on potentialities and prospects for economic development of the northeastern region with particular reference to Tripura.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 806E	Soil & Biogeography	4			4	100

**At the end of the course student-**

- Understand the soil structure and formation of soils.
- Understand soil classification and major soil groups in India.
- Awareness about causes of soil pollution and environmental degradation.
- Acquire knowledge about the role of biodiversity and conservation of forest and wildlife.
- Know the wildlife acts and policies.

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Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 807E	Geography of Tourism	4			4	100

**At the end of the course student-**

- To understand the significance of Tourist resources, related factors and philosophy, problem.
- To discuss the significance of Conservation of tourist spots.
- To corelate tourism management and economic development.
- To review the Tourism planning, strategy

**SEMESTER II- 21 Credits (Core Course (C): 17 Credits; Elective (E): 4 Credit)**

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 901C	Hazard and Disaster Management	4			4	100

**At the end of the course student-**

- Will be able to understand the concepts of hazards and disasters.
- Will know the different types of hazards and disasters.
- Will understand the causes and consequences of hazards and disasters.
- Will have an idea disaster management of hazards and disasters.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 902C	Geographical Thought	4			4	100

**At the end of the course student-**

- To identify historical evolution of the progress of geographical knowledge
- To gather knowledge about the philosophical contribution of philosophers and relate with different philosophical theorization
- To understand gradual Changing world and its geographical analysis, philosophical debate
- To discuss evolution of thought process the Indian geography

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 903C	Research Methods and Techniques in Geography	4			4	100

**At the end of the course student-**

- Get to learn how to prepare a research work starting from identifying the problem, preparing the hypothesis and deriving the objectives to understanding the problem.

- learn to resolve the issues both quantitatively and qualitatively and finally how to present it as a report.
- Understand formulate research based on specific problems in Geography and Disaster Management.
- Know how to prepare hypothesis and ask research questions.
- Know how to review literature from a specific field of research.
- Know how to devise methodology based on different studies.
- Know how to carry out research based on suitable statistical methods.
- Know how to analyse the data.
- Know how to write the results of the study and discuss w.r.t similar studies.
- Know how to write the final report in the form of dissertation.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 904C	Surveying & Field Report			5	5	100

**At the end of the course student-**

- Students get to physically verify the problems and issues related to urban and rural areas by visiting the spot and interacting with the various stakeholders of the region.
- To Measure a physical object/ area of a geographical space with survey instrument; Mathematical Calculation and drawing of a map/ plan.
- Process of primary data collection through different methods, interaction and knowledge of analysis of real society, identification of physio-socio-economic issues, connect social issues and geographical knowledge.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 905E	Natural Resource Management	4			4	100

**At the end of the course student-**

- Students will learn the various types and distribution of natural resources.
- Students will understand the importance of conservation and management of natural resources.
- Students will get update with the Know the major resource region in India and North-East India.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 906E	Hydrology & Water Resource Management	4			4	100

**At the end of the course student-**

- Acquire the knowledge on hydrological parameters.
- Know the importance of surface water hydrology and surface water resources in India.
- Apply the knowledge for estimation of groundwater resources and flow.

<ul style="list-style-type: none"> <li>• Apply the knowledge when society facing challenges like drought, floods, water conflicts, water contamination etc.</li> <li>• Suggest to public importance of water harvesting and conservation.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 907E	Urban Geography	4			4	100
<b>At the end of the course student-</b> <ul style="list-style-type: none"> <li>• To get information and Evolution of urban geography and urbanization in terms of spatio-temporal context .</li> <li>• To correlate the urban infrastructure associated with urban issues and environment.</li> <li>• To Symbiotic relationship between Urban economy and urban population.</li> <li>• To analyse critically the urban environmental problem.</li> </ul>						

**SEMESTER IV- 19 Credits (Core Course (C): 15 Credits; Elective (E): 4 Credit)**

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1001C	1- Fluvial Geomorphology	4			4	100
<b>At the end of the course student-</b> <ul style="list-style-type: none"> <li>• Understand the mechanism of stream hydraulics.</li> <li>• Acquire knowledge on river morphology.</li> <li>• Could identify structural and lithological controls upon the stream channels and different drainage patterns.</li> <li>• Gain analytical efficiency to highlight the impact of human being on river.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1001C	2- Regional Planning & Development	4			4	100
<b>At the end of the course student-</b> <ul style="list-style-type: none"> <li>• To make a detailed analysis of region and regionalization area-bases planning.</li> <li>• To get information about theories and models of regional Planning.</li> <li>• To analyse the issues related to Urban issues and development.</li> <li>• To analyse the issues related to Rural Planning and development.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		

GEDM 1001C	3- Transport Geography	4			4	100
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**At the end of the course student-**

- Understand the concepts of transportation in relation spatial interconnection and the recent trends in transportation.
- Get an idea about demand and supply and transport economics.
- Acquire knowledge about trade, its global and local patterns
- Understand the dynamics of different transport modes
- Obtain an idea about various transport policies and its implications
- Will be able to relate with the real-life issues of transport, particularly in an urban landscape.
- The students will be able to understand the concepts of transportation and will be able to relate with the real-life issues of transport, particularly in an urban landscape.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1001C	4- Applied Studies in Resources & Environmental Management	4			4	100

**At the end of the course student-**

- Know the major resources in India and Tripura.
- Understand the effects of flash floods, droughts, cloudburst and cyclones.
- Know the effectiveness of land-induced disaster.
- Acquire knowledge on forest fire, man-wildlife conflict, nuclear hazard etc.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1001C	5- Population & Resource	4			4	100

**At the end of the course student-**

- will be able to understand the components of population change, their trends and geographical patterns and its implications.
- Will be able to correlate the relationship between population and resource.
- Will understand the trends, patterns and implications of different population groups.
- Will know about the distribution and access to resources based on gender, location, caste, tribe, ethnicity and religion.
- Will understand the conflicts on access and distribution to resource.
- Will have an idea about the trends and patterns of resource consumption and its effect on the environment.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		



GEDM 1001C	6- Watershed Management	4			4	100
<b>At the end of the course student-</b>						
<ul style="list-style-type: none"> <li>• Know watershed concepts, character sic and significance of watershed</li> <li>• Acquire knowledge relation between water and soil.</li> <li>• Acquire knowledge on water resource appraisal.</li> <li>• Acquire knowledge importance of soil and water conservation, and watershed management and planning.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1002C	1- Fluvial Geomorphology (Practical)			5	5	100
<b>At the end of the course student-</b>						
<ul style="list-style-type: none"> <li>• Could analyse drainage basin through various morphometric techniques.</li> <li>• Acquire practical knowledge to analyse spatial-temporal changes in river morphology.</li> <li>• Could generate hydrological data through field investigation.</li> <li>• Develop skill to represent cartographic data using MS excel and to prepare vector layers from raster maps using GIS technique.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1002C	2- Regional Planning & Development (Practical)			5	5	100
<b>At the end of the course student-</b>						
<ul style="list-style-type: none"> <li>• To analyse the regional concentration and disparity</li> <li>• To analyse the correlation of transport and Regional Development</li> <li>• To analyse Regional Growth.</li> <li>• To make Dissertation oriented on real regional Problems/issues.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1002C	3- Transport Geography (Practical)			5	5	100
<b>At the end of the course student-</b>						
<ul style="list-style-type: none"> <li>• Will get an idea about how the transportation network of an area can be estimated and how to identify the lacunae therein.</li> <li>• Gets a hand-on experience on the use of instruments and GIS in transportation analysis</li> <li>• Get to learn how to identify and resolve problems related to transport through their dissertation work.</li> </ul>						
Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		

GEDM 1002 C	4- Applied Studies in Resources & Environmental Management (Practical)			5	5	100
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**At the end of the course student-**

- Get knowledge about soil testing parameters.
- Gets knowledge about water quality parameters.
- understand the use of climograph, hythergraph, ergograph etc.
- SWOT analysis.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1002 C	5- Population & Resource (Practical)			5	5	100

**At the end of the course student-**

- Will be able to measure and apply the components of population change
- Will be able to measure and apply the components of population distribution.
- Will be able to measure and apply the components of population composition.
- Will be able to measure and apply the components of inequality.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1002 C	Watershed Management (6) (Practical)			5	5	100

**At the end of the course student-**

- Apply knowledge to morphometric analysis.
- Apply to know water surplus and deficit areas.
- Apply to know the water quality for the purpose of domestic and agricultural use.
- Apply knowledge to know land capability and suitability of crops.
- Apply to prepare maps of land capability, NDWI, MNDWI, SWAT etc through GIS environment.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1003C	Dissertation			6	6	100

**At the end of the course student-**

- Acquire knowledge for preparation of research problem.
- Know the frame objectives and research questions.
- Know the collection of primary and secondary data.
- Know the application of suitable statistical methods according to research problem.
- Acquire knowledge analysis of data on objectives oriented.
- Acquire knowledge to delineate the results and conclusion.

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1004 E	Industrial Geography	4			4	100

**At the end of the course student-**

- To understand the classification, evolution of Industry.
- To get knowledge about Industrial Theory with present day relevance
- To know about Industrial policy of India, Industrial labour class, labour law.
- To identify the Problems and issues of related to industry, resources, market

Course Code	Name of the Course	Credit Distribution			Total Credit	Marks (Scaled)
		L	T	P		
GEDM 1005 E	Historical and Cultural Geography	4			4	100

**At the end of the course student-**

- Understand the concepts of culture, cultural landscapes and cultural ecology.
- Gets to know how cultural diffusion occurs and can distinguish ideas related to acculturation, assimilation etc.
- Enhance knowledge about global culture, culture and technological development and hybridization of world culture.
- Will be able to understand the nature and scope of historical geography.
- Identify the sources of historical geography.
- Have knowledge about the territorial organisations and the socio-economic condition of India during the ancient, medieval and colonial period.