

# **EMT311 Geospatial Applications and Analysis**

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## **Synopsis:**

EMT311 Geospatial Application and Analysis conveys geospatial principles and the practical applications of Geographic Information Systems (GIS). It provides an understanding of how GIS applications may be developed, managed and implemented. The objective of the course is to enable the undergraduates to appreciate the deployment of GIS applications in various environments and the future trends of GIS.

## **Topics:**

- Nature of Geospatial Data
- Geospatial Data Collection and Quality
- Geospatial Data Management
- Geospatial Data Modeling
- Geospatial Data Analysis
- GIS Applications for Visualization, Analysis and Communication
- GIS Applications for Business
- GIS Applications for Government
- GIS Applications for Facilities and Events Management
- Spatial Data Infrastructure Concepts and SG-SPACE
- Web GIS
- 3D Geospatial Data, BIM and Facilities Management
- Emerging Trends in GIS

## **Textbooks:**

Gina Clemmer: The GIS 20: Essential Skills, 2nd Edition 2013 by Gina Clemmer Esri Press  
ISBN-13: 9781589483224

**Learning Outcome:**

- Demonstrate understanding of the principles of GIS and Geospatial Data
- Discuss the applications of GIS
- Assess the application and business case of a GIS project
- Examine the requirements of a GIS application
- Appraise and articulate how GIS could provide solutions to real world problems
- Apply basic GIS skills of query and analysis

**Assessment Strategies (Evening Class):**

<b>Components</b>	<b>Description</b>	<b>Weightage Allocation (%)</b>
Overall Continuous Assessment	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	PRE-CLASS QUIZ 3	2
	QUIZ 1	10
	GROUP BASED ASSIGNMENT 1	14
Overall Examinable Components	ECA	70
<b>Total</b>		<b>100</b>