MANGALORE UNIVERSITY

M.Sc. GEOGRAPHY

GYP 510: Applications of GIS & GPS

Course learning outcomes:

CO1. Define data structure in GIS
CO2. Analyze geographical change analysis using geo processing tool
CO3. Production of thematic maps in Arc GIS
CO4. Collecting points and tracking the routes in GPS

Unit 1: Identification of spatial data: Point, line and polygon features, representation of spatial features: Raster and vector data model, data structure. -13

Unit 2: Overlay analysis, change analysis and buffer analysis. Scanning, integration of attribute data. Geographic analysis, digital terrain models- Application. - 14

Unit 3: Introduction to arc-view, GIS software: Digitizing, attribute data editing, query building and executing, typology, symbology and layout. Data representation: Dot map, choro-pleth, located bar and pie maps. - 14

Unit 4: Introduction to GPS, finding latitude, longitude and altitude, tracking in GPS, routing in GPS. -13

References:

1. Peter A. Burrough and Rachael A. McDonnell (1998) Principles of Geographic Information systems, Oxford University Press, New York.
2. Aronoff S. (1989) Geographic Information System, A Management Perspective, WDL Publications, Ottawa, Canada
3. Ian Heywood, Sarah Cornelius, Steve Carver (2003), An Introduction to Geographic Information System, Pearson Education Ltd., India
4. Chrisman N.R. (1997) Exploring Geographic Information System, Wiley, New York.
5. www.gisdevelopment.net/tutorials/human008.html
6. www.gisloungue.com/remotesening.html.