

Semester	IV	Specialization	Information Technology
Course Code	411IT	Type	Subject - Elective
Course Title	Geographical Information System & its Applications		

Course Objectives:	
1	To explore and understand concept of Geographical Information Systems
2	To know tools and techniques of G. I. S.
3	To develop skills to implement G. I. S. in appropriate situations

**Syllabus:**

Unit Number	Contents	Number of Sessions
1	Conceptual Framework of GIS , GIS Structure & Function Coordinate Systems, GIS Data, Database Design & Development	5+1
2	Function and Structure of Maps, Overview of Public Data Sources	5+1
3	Basic GIS Operations, Fundamentals of Data Visualization, Advanced Querying	5+1
4	Linear Operations on Spatial Data, Spatial Modeling and Analysis Data Visualization and Presentation for GIS, GIS Modeling , Spatial Interpolation Error Evaluation and Management	5+1
5	GIS for Decision Making, GIS Organization and Management GIS Applications	5+1

**Learning Resources:**

1	Text Books	Concepts and Techniques of Geographic Information Systems , Lo, C.P. and Yeung, A.K.W. (2002).. Prentice Hall.
2	Reference Books	Fundamentals of Geographic Information Systems. DeMers, M.N. (1999) 2nd Ed., Wiley Press.
3	Supplementary Reading Material	Principles of Geographical Information Systems Burrough, P.A. and R.A. McDonald (1998), Oxford University Press.
4	Websites	www.esri.com
5	Journals	-