

- Sustainability:
- 2 Problem Analysis: 8 Ethics:
- 3 Design/Development of Solutions: 9 Individual and Team Work:
- 4 Investigation: 10 Communication:
- 5 Modern Tool Usage: 11 Project Management:
- 6 The Engineer and Society: 12 Lifelong Learning:

COURSE LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

No.	CLO	Domain	Taxonomy Level	PLO
1	Describe an advanced level concept and theoretical background of Web GIS	Cognitive	2	1
2	Design complete Web GIS application	Cognitive	4	5

TOPICS COVERED:

Theory:

Wee k	Topics
1	Web GIS Introduction
2	Web Terminologies
3	Web 2.0/OGC Standards
4	Open-source Web GIS Solutions (OpenGeo Suite)
5-6	Open Layers Concept (Map object, base layer, non-base layer, map controls, WMS Layer, Google, Bing and OSM)
7	Web GIS Architecture
8	Web Services and Geospatial Web Services
9	Geospatial Mashups

10	Geoportals
11	NSDI
12	OGC standards (WCS, WPS)
13- 14	Web GIS Trends
15- 16	Mobile GIS
17- 18	ESE

Practical:

Sr. No.	Topic
1.	JavaScript
2.	OpenLayers
3.	GeoServer
4.	MapServer
5.	ArcGIS Server
6.	PHP or Python Framework (WAMP)
7.	Leaflet
8.	ExtJS, GeoExt
9.	Project

TEXT AND MATERIAL:

Textbook(s):

- a. Fu, Pinde, and Jiulin Sun. Web GIS: principles and applications. Esri Press, 2010.

ASSESSMENT SYSTEM:

1. CLOs Assessment

Cognitive	Psychomotor	Affective
Spreadsheet	-	-

2. Relative Grading

Theoretical Instruction	/		67%
		Assignments 10%	
		Quizzes 10%	
		OHT Exams 30%	
		End Semester Exam 50%	
Practical Work			33%
Laboratory Work			70%
		Laboratory Assignment 70%	
		Semester Project 30%	
Viva/Quiz			30%
Total			100%