University of Basrah
College of Information Technology

Year:	2014/2015	**Semester:**	Second

Course Information	
Course Title	Introduction to Geographic Information Systems (GIS)
Course Number	IS454
Prerequisites	None
Credits	
Teaching Method	

Assessment Policy		
Assessment Type	**Expected Due Date**	**Weight**

AIMS & OBJECTIVES

The objective of this course is to allow student gain the concepts and techniques of handling geographical data using geographical information system (GIS) technology. Upon completion of this course, students will be able to understand basic principle of GIS, to operate GIS software, and to solve spatial problems using GIS.

Learning Outcomes

Geographical Information System (GIS) is an information system that is specially designed for handling spatial (or geographical) data. It combines a set of interrelated sub-systems that create, edit, manipulate, analyse and display data both in text and graphic forms. GIS supports spatial analysis and modelling within the discipline of geography (e.g. location, proximity, and spatial distribution), so that it becomes a vital tool for modern geography.

Week	Topics
	1) **GIS definition** 2) **Representing the real world** 3) **The Nature of Geographical Data** 4) **GIS data modelling** 5) **Spatial analysis** 6) **Global position system (GPS)** 7) **Data visualization and GIS**

Textbook
1) Longley, P.A., Goodchild, M.F., Maguire, D.J., and Rhind, D.W., Geographic Information Systems and Science, New York, John Wiley & Sons, 2011.   2) Otto Huisman and Rolf A. de, Principles of Geographical Information System. Netherlands, ITC, Enschede, 2009
Reference