

Faculty of Engineering & Technology

Geo-informatics 2

Information:

Course Code: SCM 322 Level: Undergraduate Course Hours: 2.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :				
Title	Name	Office hours		
Professor	Ayman Fouad Mohammed Ragab	13		
Professor	Ayman Fouad Mohammed Ragab	13		
Teaching Assistant	Ahmed Taher Abdelhamed Mohamed Yousef			
Teaching Assistant	Ahmed Salah Rashad Ahmed Abdelhakk	4		
Teaching Assistant	Sarah Salah Sayed Hussein Aly Elsheshtawy			

Area Of Study:

Upon successful completion of this course, the student should be able to:

- Understand the basic concepts and main principles
- Calculate the values of the essential terms
- Carry out the related tests

Regarding geographic information system Data formats & topology electromagnetic distance measurements figure of earth geodetic coordinate global positioning system map projection

Description:

Earth surface, Geodetic coordinate Systems, Geodetic networks, Fundamentals of satellite geodesy, Global positioning system GPS, Map projections, Fundamentals and structure of Geographic information systems GIS.

Course ou	tcomes :
a.Knowled	ge and Understanding: :
1 -	Define the main terms of geographic information system
2 -	List the main items of Data formats & topology
3 -	Explain the principals of electromagnetic distance measurements
4 -	Describe the main concept of global positioning system
5 -	Define the main terms of map projection
b.Intellect	ual Skills: :
1 -	Calculate the values of electromagnetic distance measurements
2 -	Calculate the values of geodetic coordinate
3 -	Assess issues of global positioning system
4 -	Solve problems regarding map projection



5 -	Solve problems regarding figure of earth
c.Profess	ional and Practical Skills: :

1 - Prepare technical reports for Data formats & topology

2 - Prepare technical reports for map projection

d.General and Transferable Skills::

1 - Cooperate and communicate effectively

Course Topic And Contents :					
Topic	No. of hours	Lecture	Tutorial / Practical		
geographic information system	4	2	2		
Data formats & topology	8	4	4		
electromagnetic distance measurements	8	4	4		
figure of earth	8	4	4		
geodetic coordinate	12	6	6		
global positioning system	8	4	4		
map projection	8	4	4		
Revision	4	2	2		

Teaching And Learning Methodologies:

Interactive Lec.

Discussion

Problem Solving

Report / Present.

Course Assessment :				
Methods of assessment	Relative weight %	Week No	Assess What	
final exam	40.00			
Mid- Exam I, II	30.00			
Quizzes / Assig.	15.00			
Report / Present.	15.00			

<u>Course Notes :</u>		
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Recommended books :		
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Periodicals :	
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Web Sites:	
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