

## 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	14
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 outcomes :**

**a. Knowledge 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. Intellectual Skills: :**

1 -	Calculate the values of electromagnetic distance measurements
2 -	Solve problems regarding figure of earth
3 -	Calculate the values of geodetic coordinate
4 -	Assess issues of global positioning system
5 -	Solve problems regarding map projection

**c. Professional and Practical Skills: :**

1 -	Prepare technical reports for Data formats & topology
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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		

**Course Notes :**

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**Recommended books :**

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**Periodicals :**

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**Web Sites :**

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