

**Faculty of Engineering & Technology**

**Structural Analysis 2**

**Information :**

**Course Code :** SCM 212

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Department of Structural Engineering & Construction Management

**Instructor Information :**

Title	Name	Office hours
Professor	Bahaa sharaf ismail tork	3
Associate Professor	MOHAMED GALAL KHALIL IBRAHIM ELSHERBINI	9
Associate Professor	MOHAMED GALAL KHALIL IBRAHIM ELSHERBINI	9
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	4
Assistant Lecturer	Muhammad Diab Saadeldin Abdl aal	
Teaching Assistant	Mohamed Ahmed Reda Abas Ahmed	13
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**Area Of Study :**

- Determine the influence line for beams, frames and trusses.
- Determine the properties of sections
- Determine the straining actions.

**Description :**

Analysis of beams subjected to moving loads, Introduction to space structures, Influence lines for statically determinate structures.

**Course outcomes :**

**a. Knowledge and Understanding: :**

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| 1 - | - Define basic concepts of structural modeling. |
| 2 - | - Understand the behavior of structures         |

**b. Intellectual Skills: :**

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| 1 - | Ability to analyze the engineering problems                                |
| 2 - | Ability to derive different solution alternatives for engineering problems |
| 3 - | Ability to assess the obtained results accuracy                            |

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

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|-----|---|
| 1 - | Ability to handle different types of structures               |
| 2 - | Ability to handle different structural systems                |
| 3 - | Ability to assess the effect of live loading and moving loads |

**d.General and Transferable Skills: :**

1 -	- Ability to practice team work and present results
2 -	Manage time and meet deadlines
3 -	Analyze problems and use innovative thinking in their solution

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Influence line of reactions	4	4	1
Influence line of beams	8	8	2
Influence line of frames	8	8	2
Influence line of Trusses	8	8	4
Properties of sections and plane areas	4	4	1
Determination of straining actions for stress calculations	10	10	4

**Teaching And Learning Methodologies :**

Lectures
Tutorials

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
final exams	40.00		
mid term exmas	25.00		
oral exmination	10.00		
semester work	25.00		

**Course Notes :**

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**Recommended books :**

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**Periodicals :**

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**Web Sites :**

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