Faculty of Engineering & Technology

Dynamic of Structures

Information :

Course Code :	SCM 518	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Structural Engineering & Construction Management

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
Regarding free & damped vibration SDF system response of SDF system spectral analysis of SDF systems free & damped vibration MDF system forced analysis of MDF systems spectral analysis of MDF systems

Description :

Undamped single degree of freedom system, Damped single degree of freedom system, Response of single degree of freedom system to harmonic load, Dynamic response to general loading, Multi-degree of freedom systems, Damped motion of shear buildings.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Define the main terms of free & damped vibration SDF system
2 -	Define the main terms of free & damped vibration MDF system
b.Intellectual Skills: :	
1 -	Calculate the values of free & damped vibration SDF systeM
2 -	Calculate the values of response of SDF system
3 -	Analyze the system of spectral analysis of SDF systems
4 -	Calculate the values of free & damped vibration MDF system
5 -	Calculate the values of forced analysis of MDF systems
6 -	Analyze the system of spectral analysis of MDF systems
c.Professional and Practical Skills: :	
1 -	Prepare technical reports for free & damped vibration MDF system
d.General and Transferable Skills: :	
1 -	Search for information and self-learning discipline

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
free & damped vibration SDF system	12	9	3
response of SDF system	8	6	2
spectral analysis of SDF systems	8	6	2

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
free & damped vibration MDF system	12	9	3
forced analysis of MDF systems	8	6	2
spectral analysis of MDF systems	8	6	2
Revision	4	3	1

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 :

Lecture note on moodle

Recommended books :

K.M.Leet, C.M. Unage and A.M.Gilbert "Fundamentals of Structural Analysis" McGraw Hill, ISBN:978-007-125929-3