

**Faculty of Engineering & Technology****Advanced Structural Analysis****Information :****Course Code :** SCM 513**Level :** Undergraduate**Course Hours :** 3.00- Hours**Department :** Department of Structural Engineering & Construction Management**Instructor Information :**

Title	Name	Office hours
Associate Professor	MOHAMED GALAL KHALIL IBRAHIM ELSHERBINI	17
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Assistant Lecturer	MOHAMMED TAHER ABDELHAMID MOHAMMED YOUSSEF	8
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**Description :**

Undamped and damped free vibration analysis of SDOF systems, Response of SDOF system to harmonic loading, Free vibration analysis of MDOF systems, The nature of earthquake ground motion, Seismicity of the world and of Egypt, Causes of earthquakes, basic glossary and terminology, Seismic waves, Quantification of earthquakes, Damage mechanism, Characteristics of earthquake ground motions, Philosophy of design, Seismic response spectral analysis of SDOF system, Seismic response spectral analysis of MDOF systems, Architectural considerations, Seismic design by ECP-201.