

# FACULTY OF CIVIL ENGINEERING MASTER OF ENGINEERING (STRUCTURE)

## INTRODUCTION

Master of Engineering (Structure) programme at Universiti Teknologi Malaysia aims to equip students with the necessary knowledge and skills to effectively tackle complex civil engineering structure problems. The programme offers advanced training in various areas of structural analysis and design, including subjects like advanced structural analysis, finite element method, reinforced and precast concrete, steel, cold-formed and composite structures, structural dynamics, wind and earthquake engineering, tall buildings, bridges, and the design and safety of temporary structures. Additionally, students have the opportunity to conduct research or design projects as part of their master's project, further enhancing their practical skills and expertise.

## DURATION OF STUDY

Main-Stream : 3 to 8 semesters  
Weekend Mode : 4 to 8 semesters

## ADMISSION REQUIREMENT

- Bachelor's degree in Civil Engineering from UTM or recognized equivalent with CGPA  $\geq 2.50$ .
- CGPA between 2.00 and 2.50 requires 5 years of related work experience.

## Core Courses

- Research Methodology
- Advanced Structural Analysis & Modelling
- Advanced Design of Steel & Composite Structures
- Advanced Design of Reinforced Concrete Structures
- Structural Dynamics

## Elective Courses

- Finite Element Analysis
- Advanced Mechanics
- Structural Reliability
- Prestressed Concrete Design
- Precast Concrete Structures
- Advanced Construction Materials
- Concrete Technology
- Structural Assessment

- Bridge Engineering
- Tall Building Design
- Wind & Earthquake Engineering
- Seismic Retrofitting
- Structural Fire Engineering
- Cold-formed Steel Structures
- Safety of Temporary Structures

## Master Project

- Research Project I
- Research Project II

OR

- Design Project I
- Design Project II

## University General Course

Compulsory  
One (1) only

## Further Information

**Ts. Dr. Nurul 'Azizah Binti Mukhlis**  
Programme Coordinator  
Master of Engineering (Structure)  
Faculty of Civil Engineering  
Universiti Teknologi Malaysia

 [nurulazizah@utm.my](mailto:nurulazizah@utm.my)  
 +6017-341 7073  
 Master of Engineering in Structure -  
Universiti Teknologi Malaysia  
 [www.utm.my](http://www.utm.my)

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 nurulazizah@utm.my  
 +6017-7452249  
 Master of Engineering in Structure -  
Universiti Teknologi Malaysia  
 www.utm.my