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**School of Civil Engineering** Faculty of Engineering The Best Civil Engineering Program in Malaysia

# Master of Engineering (Structure

## **Objectives**

The aims of Master of Engineering (Structure) program at Universiti Teknologi Malaysia is to provide opportunity for students to develop their knowledge and skills in solving problems of complex civil engineering structures.

Training in the advanced analysis and design of structures such as advanced structural analysis, finite element method, reinforced and precast concrete, steel, cold-formed and composite structures, modular structural construction, dynamic, wind and earthquake, tall building, bridges, design and safety of temporary structures are available.

The program also train students in conducting research or design project in their 10 credits master project.

## **Admission Requirements**

Bachelor of Civil Engineering from UTM or equivalent and recognized by the senate with CGPA of 3.00 and above

CGPA between 2.00 and 3.00, candidates must have more than 2 years work experience in a related field.

Candidates without a Civil Engineering Degree are required to take the pre-requisite courses set as follows first and pass with a grade of at least B for courses Structural Analysis, Reinforced Concrete Design I, Reinforced Concrete Deign II, Steel Design & Timber and **Civil Engineering Materials** 

# Duration of Study

Full time : 3 to 6 Semester Part Time: 4 to 8 Semester

# **Courses Grouping**

#### 1. UNIVERSITY GENERAL COURSES

(1 COURSES, 3 CREDITS) Choose only one

- **Organization Behavior &** Development\* Business Ethics,
- Responsibility and Sustainability\*
- Basic Japanese Language & Culture\* Environmental Ethics\*
- Others courses offer for International students and JB campus

## 2. CORE COURSES

(5 COURSES, 15 CREDITS)

- Research Methodology Advanced Structural
- Analysis and Modelling Advanced Design of Steel
- and Composite Structures Advanced Design of
- **Reinforced Concrete**

Structures Structural Dynamics 0

## 4. MASTER PROJECT

(10 CREDITS)

- Choose either Research Track\* or Technical / Design Track\*\*
- Research Project I\*
- **Research Project II\*** Design Proiect I\*\*
- 0
  - Design Project II\*\*

#### 3. ELECTIVE COURSES

(6 COURSES, 18 CREDITS) Choose 6 Courses

- Seismic Retrofitting and Nonlinear Analysis of 0 Structures
- **Design and Construction of Precast Concrete** Structures
- Structural Assessment and Rehabilitation 0
- Advanced Mechanics of Materials
- Advanced Construction materials 0
- **Design of Prestressed Concrete**
- Structural Fire Engineering 0 0
  - Tall Building System Analysis and Design Structural Wind and Earthquake Engineering
- **Design and Safety of Temporary Structures** 0
  - Masonry Materials, Design and Construction
  - Cold-formed Steel Structures and
  - Modular Construction

0

### **Further Information**

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Studv at Universiti Teknologi Malaysia

admission.utm.my