



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**FAKULTI KEJURUTERAAN AWAM**  
Faculty of Civil Engineering

M50

# MASTER IN GEOTECHNICAL ENGINEERING

## OBJECTIVE

The aim of this Master Program is to augment student's knowledge by providing an in-depth understanding on engineering properties and behaviour of geological materials, i.e. soils and rocks. Advancement of knowledge in the program is achieved by incorporating elements on advanced geotechnical analysis and design of common structures in Civil Engineering. Skills for continuing studies and research in relevant areas are also catered for in the program. The target group for the program includes professionals and practising engineers in geotechnical engineering field.

## ADMISSION REQUIREMENTS

Candidates should hold a good honours bachelor degree in Civil Engineering from Universiti Teknologi Malaysia or equivalent (CGPA 2.5 and above). A lower degree grade with but sufficient working experience may also be considered for admission

## CREDIT REQUIREMENTS

A student must complete 40 credit hours for graduation

## CORE COURSE

All Core Course are compulsory (Total : 18 credits)

## DURATION OF STUDY

3 - 8 semester

## MODE OF STUDY

Blended Learning  
(70% online and 30% face-to-face)

## LOCATION

Perdana : Johor  
Offshore(weekend) : Kuala Lumpur

## COURSE GROUPING

### UNIVERSITY GENERAL COURSES

(1 Courses, 3 Credits)  
\*Choose one only

- Dynamics of Leadership
- Basic Japanese Language & Culture
- Organization Behavior & Development
- Business Ethics, Responsibility and Sustainability
- IT Project Management
- Introduction to Technopreneurship
- Philosophy of Science and Civilization
- Bahasa Malaysia Penulisan Ilmiah
- Seminar on Global Development, Economic And Social Issues
- Malaysian Society & Culture

### MASTER PROJECT

(10 Credits)

- Master Project 1 (MEAJ 1514)
- Master Project 2 (MEAJ 1526)

### CORE COURSES

(6 Courses, 18 Credits)

- Research Methodology (MEAU0013)
- Advanced Soil Mechanics (MEAJ 1013)
- Advanced Geotechnical Analysis and Design (MEAJ 1023)
- Advanced Foundation Engineering (MEAJ 1033)
- Slope Engineering (MEAJ 1043)
- Geological and Rock Engineering (MEAJ 1073)

### ELECTIVE COURSES

(6 Courses, 12 Credits)  
\*Choose 4 Courses

- Software Application in Geotechnical Engineering (MEAJ 1053)
- Soil Dynamics (MEAJ 1063)
- Environmental Geotechnics (MEAJ 1083)
- Unsaturated Soil Mechanics (MEAJ 1093)
- Tunnel Engineering (MEAJ 1113)

## FURTHER INFORMATION

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