# COLLEGE OF ENGINEERING (CE)

# CIVIL ENGINEERING (CEEC)

## MASTER BY COURSEWORK

### MASTER OF SCIENCE IN STRUCTURAL ENGINEERING - CEEC701
### DURATION OF STUDY: 1.5 - 2 YEARS/ 3 - 4 SEMESTERS
### *(INTAKE : MAC & OCTOBER)*

**Synopsis**

This programme is designed to nurture capable and competent specialist in structural engineering who uphold sustainable development philosophy of the nation through creative and innovative process of teaching and learning, research based and professional ethics to support future needs of the national and global agenda.

A student pursuing a master degree by coursework is required to undertake two (2) semesters of taught examinable materials followed by one (1) semester of research dissertation. The courses are career-oriented and cover both theoretical background and practical design consideration.

**Entry Requirement**

<table>
<tr><th colspan="2">General</th></tr>
<tr><td colspan="2">Bachelor's degree in Civil Engineering or related field with minimum CGPA of 2.75 or equivalent, from UiTM or other higher learning institutions recognised by the UiTM Senate;<br><br>Related fields:<br>Engineering and engineering trades; engineering technology; Applied Science; Building, Architecture and Building; Architecture and Town Planning; Management and Administration; Mechanics and Metal Work; Materials (wood, paper, plastic and glass); Environmental protection (broad programmes); Environmental protection technology; Occupational health and safety; Chemical Engineering; Mechanical Engineering; Electrical Engineering<br><br>OR<br><br>Bachelor's degree in Civil Engineering or related field not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years of working experience in relevant field.<br><br>Related field:<br>Engineering and engineering trades; engineering technology; Applied Science; Building, Architecture and Building; Architecture and Town Planning; Management and Administration; Mechanics and Metal Work; Materials (wood, paper, plastic and glass); Environmental protection (broad programmes); Environmental protection technology; Occupational health and safety; Chemical Engineering; Mechanical Engineering; Electrical Engineering</td></tr>
<tr><th>Local</th><th>International</th></tr>
<tr><td>OR<br><br>Fulfilled the Accreditation of Prior Experiential Learning APEL A (T-7) admission process for Master's Degree in related fields.</td><td>Language Requirements<br><br>● TOEFL certificate with a score of at least 417-450 for (paper-based) or 107-131 (computer-based) or 35-45 (IBT); or</td></tr>
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|---|---|
| Related field:<br>Engineering and engineering trades; engineering technology; Applied Science; Building, Architecture and Building; Architecture and Town Planning; Management and Administration; Mechanics and Metal Work; Materials (wood, paper, plastic and glass); Environmental protection (broad programmes); Environmental protection technology; Occupational health and safety; Chemical Engineering; Mechanical Engineering; Electrical Engineering | • IELTS certificate with at least Band 5; or<br>• MUET Band 3<br>• Any English Language Test which is equivalent to B1 in the Common European Framework of Reference for Language (CEFR)<br><br>Applicants that do not meet the English proficiency requirements are required to attend and pass the SIX (6) months of English Proficiency Class (EPC). At the end of the EPC, candidates are required to sit for IELTS/TOEFL/MUET examination with the score according to the academic program. |

## Fee Structures

### Local

| FEES | TOTAL RINGGIT MALAYSIA (RM) | |
|---|---|---|
| | **Full-time** | **Part-time** |
| Fees for semester 1 | RM 2, 198 | RM 1, 738 |
| Fees for semester 2 | RM 2, 125 | RM 1, 665 |
| Fees for semester 3 | RM 2, 135 | RM 1, 665 |
| Fees for semester 4 | | RM 1, 875 |
| **TOTAL ESTIMATION FOR TUITION FEES** | **RM 6, 458** | **RM 6, 943** |

**ESTIMATED FEES* Subject to change*

**Fees for Convocation RM210 will be charged in the final semester*

### International

| FEES | TOTAL RINGGIT MALAYSIA (RM) |
|---|---|
| Fees for semester 1 | RM 5, 480 |
| Fees for semester 2 | RM 5, 370 |
| Fees for semester 3 | RM 4, 980 |
| **TOTAL ESTIMATION FOR TUITION FEES** | **RM 15, 830** |

## Programme Structures

| **FULL-TIME** | | |
|---|---|---|
| **Year 1** | | **Year 2** |
| **Semester 1** | **Semester 2** | **Semester 3** |
| 1. ECD733 - Risk Management | 1. ECD734 - Research Methodology | 1. ECD735 - Research Project |
| 2. ECS718 - Finite Elements in Mechanics | 2. ECS725 - Structural Dynamics and Earthquake Engineering | 2. ECD738 - Sustainability Management |
| 3. ELECTIVE (Choose any TWO) | 3. ELECTIVE (Choose any TWO) | |
| a. ECS727 - Structural Rehabilitation and Retrofitting | a. ECS727 - Structural Rehabilitation and Retrofitting | |
| b. ECS731 - Advanced Mechanics of Metal and Concrete Structures | b. ECS729 - Tall Building Engineering | |
| c. ECS732 - Earthquake Hazard and Risk Analysis | c. ECS731 - Advanced Mechanics of Metal and Concrete Structures | |
| d. ECS738 - Railway Infrastructure and Track System | d. ECS732 - Earthquake Hazard and Risk Analysis | |
| e. ECS742 - Bridge Engineering | e. ECS738 - Railway Infrastructure and Track System | |
| f. ECG715 - Advanced Foundation Engineering | f. ECS742 - Bridge Engineering | |
| g. ECS736 - Timber Engineering | g. Seismic Design of RC Buildings and Sub-Structures | |

| | | |
|---|---|---|
| | h. ECG715 - Advanced Foundation Engineering<br>i. ECS727 - Structural Rehabilitation and Retrofitting<br>j. ECS761 - Seismic Design of RC Buildings and Sub-Structures | |

| **PART-TIME** | | | |
|---|---|---|---|
| **Year 1** | | **Year 2** | |
| **Semester 1** | **Semester 2** | **Semester 3** | **Semester 4** |
| a. ECD733 - Risk Management<br>b. ECS718 - Finite Elements in Mechanics<br>c. ELECTIVE (Choose ONE only)<br>d. ECS729 - Tall Building Engineering<br>e. ECG715 - Advanced Foundation Engineering<br>f. ECS727 - Structural Rehabilitation and Retrofitting<br>g. ECS731- Advanced Mechanics of Metal and Concrete Structures<br>h. ECS732- Earthquake Hazard and Risk Analysis<br>i. ECS738- Railway Infrastructure and Track System<br>j. ECS742 - Bridge Engineering<br>k. ECS761- Seismic Design of RC Buildings and Sub-Structures<br>i. ECS736 - Timber Engineering | 1. ECD734 - Research Methodology<br>2. ECS725 - Structural Dynamics and Earthquake Engineering<br>3. ELECTIVE (Choose ONE only)<br>a. ECG715 - Advanced Foundation Engineering<br>b. ECS727 - Structural Rehabilitation and Retrofitting<br>c. ECS729 - Tall Building Engineering<br>d. ECS731 - Advanced Mechanics of Metal and Concrete Structures<br>e. ECS732 - Earthquake Hazard and Risk Analysis<br>f. ECS738 - Railway Infrastructure and Track System<br>g. ECS742 - Bridge Engineering<br>h. ECS736 - Timber Engineering<br>i. ECS761 - Seismic Design of RC Buildings and Sub-Structures | 1. ECD738 - Sustainability Management<br>2. ELECTIVE (Choose any TWO)<br>a. ECG715 - Advanced Foundation Engineering<br>b. ECS727 - Structural Rehabilitation and Retrofitting<br>c. ECS729 - Tall Building Engineering<br>d. ECS731 - Advanced Mechanics of Metal and Concrete Structures<br>e. ECS732 - Earthquake Hazard and Risk Analysis<br>f. ECS738 - Railway Infrastructure and Track System<br>g. ECS742 - Bridge Engineering<br>h. ECS736 - Timber Engineering<br>i. ECS761 - Seismic Design of RC Buildings and Sub-Structures | 1. ECD735 - Research Project |