

Admission Number

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**Master of Engineering Program in Civil Engineering (International Program)**

หลักสูตร วิศวกรรมศาสตรมหาบัณฑิต

สาขาวิชา วิศวกรรมโยธา (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Engineering

คณะวิศวกรรมศาสตร์

Expected number of students to be accepted year round : 10 Students

**Admission Requirements**

**A candidate must:**

1. Holding or expecting a bachelor degree in Civil Engineering or related field from Thai or International institutions accredited by the Office of the Higher Education Commission.
2. Have a minimum grade point average of 2.50
3. Have a TOEFL score of at least 480, TOEFL computer-based score of 157, TOEFL Internet-based score of 54, or IELTS score of 4.5 or pass the English Proficiency Examination arranged by the Faculty of Graduate Studies.

Those who do not have any of the test scores specified above will have to take the English Proficiency Examination of the Faculty of Graduate Studies on the specified examination day.

Exception from the above conditions may be granted by the Program Committee and the Dean of the Faculty of Graduate Studies.

**Written Examination** (Applicants must attend the examination date accurately to your admission round.)

| <b><u>Third Round</u></b>  |                    |
|--|--------------------|
| <b>May 31, 2014</b>  |                    |
| <b>Subjects for examination</b>  | <b>Time</b>        |
| 1. English   | 8.30 - 11.30 a.m.  |
| 2. General Knowledge   | 11.30 - 12.30 p.m. |
| <b>Place</b><br>Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a><br>or Announcement at Faculty of Graduate Studies branches. |                    |

## Curriculum Structure

|                  | <b>Credit</b>    |
|------------------|------------------|
| Required Courses | 12               |
| Elective Courses | not less than 12 |
| Thesis           | 12               |

|  | <b>Credit</b> |
|--|---------------|
| <b>Required Courses</b>                                    |               |
| EGCE 523 Research Methodology for Civil Engineering        | 2(1-0-4)      |
| EGCE 525 Building Systems                                  | 3(3-0-6)      |
| EGCE 526 Infrastructure Systems                            | 3(3-0-6)      |
| EGCE 527 Economic and Finance of Project Investment        | 3(3-0-6)      |
| EGCE 528 Seminar in Civil Engineering                      | 1(1-0-2)      |
| <b>Elective Courses</b>                                    |               |
| EGCE 502 Durability of Concrete and Structures             | 3(3-0-6)      |
| EGCE 503 Destructive and Non-Destructive Testing           | 3(3-0-6)      |
| EGCE 504 Repair and Maintenance of Reinforced Concrete     | 3(3-0-6)      |
| EGCE 508 Advanced Cementitious Materials                   | 3(3-0-6)      |
| EGCE 510 Finite Element Method for Civil Engineering       | 3(3-0-6)      |
| EGCE 511 Structural Analysis and Structural Dynamics       | 3(3-0-6)      |
| EGCE 512 Advanced Design of Reinforced Concrete            | 3(3-0-6)      |
| EGCE 513 Seismic Design and Rehabilitation                 | 3(3-0-6)      |
| EGCE 514 Advanced Design of Prestressed Concrete           | 3(3-0-6)      |
| EGCE 515 Advanced Design of Steel Structures               | 3(3-0-6)      |
| EGCE 517 Inverse Problem Analysis for Civil Engineering    | 3(3-0-6)      |
| EGCE 518 Optimization Methods for Engineers and Scientists | 3(3-0-6)      |
| EGCE 550 Traffic Theory and Applications                   | 3(3-0-6)      |
| EGCE 551 Traffic Control and Management                    | 3(3-0-6)      |
| EGCE 552 Urban Transportation Planning                     | 3(3-0-6)      |
| EGCE 553 Travel Behavior and Demand Analysis               | 3(3-0-6)      |

|               |     |   |            |
|---------------|-----|---|------------|
| EGCE          | 554 | Intelligent Transportation Systems                        | 3(3-0-6)   |
| EGCE          | 555 | Transportation, Energy, and Environment                   | 3(3-0-6)   |
| EGCE          | 560 | Construction Planning and Control                         | 3(3-0-6)   |
| EGCE          | 563 | Construction Techniques and Equipment                     | 3(3-0-6)   |
| EGCE          | 564 | Construction Project Administrations                      | 3(3-0-6)   |
| EGCE          | 565 | Law and Contract Administrations                          | 3(3-0-6)   |
| EGCE          | 566 | Construction Cost, Economics and Finance                  | 3(3-0-6)   |
| EGCE          | 567 | Construction Safety Management                            | 3(3-0-6)   |
| EGCE          | 568 | Quality Control in Construction Projects                  | 3(3-0-6)   |
| EGCE          | 569 | Construction Organizational Management                    | 3(3-0-6)   |
| EGCE          | 570 | Geoinformatics System in Engineering                      | 3(3-0-6)   |
| EGCE          | 571 | Applied Geoinformatics for Land Use Planning              | 3(3-0-6)   |
| EGCE          | 572 | Natural Disaster Engineering                              | 3(3-0-6)   |
| EGCE          | 573 | Applied Geoinformatics for Watershed Management           | 3(3-0-6)   |
| EGCE          | 574 | Geoinformatics for Disaster Management and Mitigation     | 3(3-0-6)   |
| EGCE          | 575 | Geoinformation Technology Applications for Climate Change | 3(3-0-6)   |
| EGCE          | 576 | Geoinformatics for Transportation Analysis                | 3(3-0-6)   |
| EGCE          | 577 | Hydrometeorology  | 3(3-0-6)   |
| EGCE          | 580 | Advanced Foundation Engineering                           | 3(3-0-6)   |
| EGCE          | 581 | Engineering Properties of Soil                            | 3(3-0-6)   |
| EGCE          | 582 | Excavations and Support Systems                           | 3(3-0-6)   |
| EGCE          | 583 | Soil and Site Improvement                                 | 3(3-0-6)   |
| EGCE          | 584 | Determination of Soil Properties                          | 3(3-0-6)   |
| EGCE          | 585 | Theoretical Soil Mechanics                                | 3(3-0-6)   |
| EGCE          | 586 | Finite Element Method for Geotechnical Engineering        | 3(3-0-6)   |
| EGCE          | 587 | Geoenvironmental Engineering                              | 3(3-0-6)   |
| EGCE          | 588 | Earth Structures  | 3(3-0-6)   |
| EGCE          | 591 | Selected Topics   | 3(3-0-6)   |
| <b>Thesis</b> |     |   |            |
| EGCE          | 698 | Thesis  | 12(0-36-0) |

\* These may change in cases where there are suggestions for the improvement of the curriculum

### **Additional Advantages of the Program**

This program integrates knowledge from various disciplines in Civil engineering into a practical and comprehensive program. Students will gain a better understanding of the big picture and relationships among various disciplines throughout a civil engineering project, as well as project financial management. These enable graduates from the program to have the necessary technical knowledge and skills to work effectively.

### **Application Process**

Application is only available via online application at [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

### **Required Documents**

Prepare the following required documents to submit via online admission system or by mail:

- |  |          |
|--|----------|
| - Recent photographs (1x1 inch in size)  | 2 copies |
| - A copy of an applicant's degree certificate or a certification letter of graduation (for an applicant holding a bachelor degree)   | 2 copies |
| - A letter certifying that an applicant is currently in the last semester prior to graduation (for an applicant expecting a bachelor degree)                                 | 2 copies |
| - A formal transcript of a degree (for an applicant holding a bachelor degree)   |          |
| - A grade report or transcript with course names and grades received from the first to the current semester prior to graduation (for an applicant holding a bachelor degree) | 2 copies |
| - A copy of identification card  | 2 copies |
| - A copy of house registration certificate   | 2 copies |
| - A copy of proof of application fee payment   | 2 copies |

Submitting documents via online admission system.

- All documents must be in pdf format (maximum size 2 MB)
- Recent photograph must be in jpeg format only (maximum size 2 MB)

### **Job Options after Graduation**

- Civil engineer
- Academic or researcher in civil engineering fields
- Business owner or technical sales engineer

**For Further Information, Please Contact**

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**Program Coordinator**

1. **Miss Sulinda Nualprasong (E-mail: [sulinda.nul@mahidol.ac.th](mailto:sulinda.nul@mahidol.ac.th))**  
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**Note** For more academic information: [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

**For more information please contact the Student Admission Section.  
Tel . 0 2441 4125 ext. 208-210 , 0 2441 9129, E-mail : [gradthai@mahidol.ac.th](mailto:gradthai@mahidol.ac.th)**