Master of Engineering  Programme in Environmental and Water Resources  Engineering
(International Programme)

Faculty of Engineering

Admission Requirements

A candidate must:
1. The candidate should hold either a Bachelor of Engineering or Science degree
2. have a minimum grade point average of 2.50
3. Have a TOEFL ITP score of at least 480, TOEFL Internet-based score of 54 or IELTS score of 5 or MU GRAD TEST score of 60.

Exceptions from the above conditions may be granted by the Programme Committee and the Dean of Faculty of Graduate Studies;

Curriculum Structure

<table>
<thead>
<tr>
<th>Credit</th>
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<tr>
<td>Elementary Courses</td>
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<tr>
<td>Required Courses</td>
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<tr>
<td>Elective Courses</td>
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<td>Thesis</td>
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<tr>
<th>Foundation Courses</th>
<th>Credit</th>
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<tr>
<td>EGEW 501 Water and Wastewater Engineering</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>EGEW 502 Hydraulic Engineering</td>
<td>3(3-0-6)</td>
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<tr>
<td>EGEW 503 Applied Hydrology</td>
<td>3(3-0-6)</td>
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<tr>
<th>Required Courses</th>
<th>Credit</th>
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<tr>
<td>EGEW 511 Water Quality Engineering</td>
<td>3(2-2-5)</td>
</tr>
<tr>
<td>EGEW 512 Air Pollution Engineering</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>EGEW 513 Solid and Hazardous Waste Management</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>EGEW 514 Feasibility Study for Water Resources Project</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>EGEW 515 Water Resources Systems Analysis and Management Planning</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>EGEW 516 Seminar in Environmental and Water Resources Engineering</td>
<td>1(1-0-2)</td>
</tr>
<tr>
<td>EGEW 517 Skills Enhancement through Problem Based Learning</td>
<td>2(0-6-2)</td>
</tr>
<tr>
<td>EGEW 518 Research Methodology for Environmental and Water Resources Engineering</td>
<td>2(2-0-4)</td>
</tr>
</tbody>
</table>
**Elective Courses**

EGEW 531 Physico-Chemical Processes 3(3-0-6)
EGEW 532 Biological Processes 3(3-0-6)
EGEW 533 Clean Technology 3(3-0-6)
EGEW 534 Membrane Technology 3(3-0-6)
EGEW 535 Waste Reuse and Recycling 3(3-0-6)
EGEW 536 Principles of Toxicology 3(3-0-6)
EGEW 537 Soil Pollution Engineering 3(3-0-6)
EGEW 538 Air Pollution Modeling and Applications 3(3-0-6)
EGEW 539 Life Cycle Assessment 3(3-0-6)
EGEW 540 Micropollutants Control Engineering 3(3-0-6)
EGEW 541 Applied Wastewater Microbiology 3(3-0-6)
EGEW 542 Sediment and Pollutant Transport 3(3-0-6)
EGEW 543 Flood and Drought Management 3(3-0-6)
EGEW 544 Reservoir System Planning and Management 3(3-0-6)
EGEW 545 Hydroinformatics in Water Resources Engineering 3(3-0-6)
EGEW 546 Impact of Climate Change on Environment and Water Resources 3(3-0-6)
EGEW 547 Geographic Information System for Environmental and Water Resources Engineering 3(3-0-6)
EGEW 548 Remote Sensing for Environmental and Water Resources Engineering 3(3-0-6)
EGEW 549 Special Study 3(3-0-6)

**Thesis**

EGEW 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 programme**

Students may have chance to go to some foreign institutions for research training during summer. They can go to any of the following places: Kyoto University, Japan; Seoul National University, South Korea, National University of Singapore, Georges Tech. (U.S.A.)

**Details of Scholarships**

Several scholarships and partial tuition supports are available for qualified students.

**Additional information for applicants**

Our program have academic collaboration with Kyoto University, Seoul National University and National of Singapore University.
**Application Process**

Application is only available via online application at www.grad.mahidol.ac.th

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**Required Documents**

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

1. Completed an Online Application at www.grad.mahidol.ac.th which comprised with
   - Form A : Application Form
   - Form B : Background and Proposed Field of Study
   - Form C : Recommendation Forms (directly submitted by at least 2 referees)
2. Two copies of Degree Certificate (with officially certified English translation)
3. Two copies of Academic Transcript (with officially certified English translation)
4. Two copies of Recent Photos (Passport size)
5. Two copies of Passport
6. Two copies of English certificate (TOEFL/ IELTS/ MU-Grad Test)

   **(For Doctoral Program)**
   - TOEFL ITP score of at least 500, TOEFL Internet-based score of 61, or IELTS score of 5

   **(For Master's Program)**
   - TOEFL ITP score of at least 480, TOEFL Internet-based score of 54, IELTS score of 5 or MU GRAD TEST score of 60.

**Notes**

- Only accept TOEFL ITP score from examination center arranged by Faculty of Graduate Studies, Mahidol University.
- TOEFL ITP taken from other domestic and overseas institutes are invalid.
- The test date must be within previous 2 years before application date
- Applicant who obtained a valid English score must submit an official score certificate along with your application. Otherwise, your English score will not be considered.

7. Two copies of Curriculum Vitae
8. Two copies of Statement of Purposes and Career Goals
9. Two copies of Current bank statement / Scholarship letter (if any)
10. Two copies of Concept paper / research proposal (recommended for all applicants)
11. Two copies of additional documents may be requested by each program (such as letter of work experience / professional license/ related certificates and awards)

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**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)

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**Job option after graduation**

- Consultant.
- Environmental Engineer.
- Researcher.
Further information may be obtained from the Director of Graduate Studies, Environmental And Water Resources Engineering:

1. Asst. Prof. Dr. Suwanna Boontanon  (E-mail: suwanna.boon@mahidol.ac.th)
   Room 6386, Engineering Building 3, Floor 3, Department of Civil & Environmental Engineering, Faculty of Engineering, Mahidol University, Salaya
   Tel: 0 2889 2138 Ext. 6390  Fax: 0 2889 2138 Ext. 6388

2. Dr. Romanee Thongdara  (E-mail: romanee_t@yahoo.com, romanee.tho@mahidol.ac.th)
   Room 6399, Engineering Building 3, Floor 3, Department of Civil & Environmental Engineering, Faculty of Engineering, Mahidol University, Salaya
   Tel: 0 2889 2138 Ext. 6386  Fax: 0 2889 2138 Ext. 6388

Program Coordinator

Miss Katekarn Katesuchai  (E-mail: kadkarn11@gmail.com)
Engineering Building 3, Floor 3, Department of Civil & Environmental Engineering, Faculty of Engineering, Mahidol University, Salaya
Tel: 0 2889 2138 Ext. 6396-7  Fax: 0 2889 2138 Ext. 6388

Notes
1. The programme of Environmental Engineering may require students to study the pre-requisite courses:
   - EGEW 501 Water and Wastewater Engineering  3 Credits
   - EGEW 503 Applied Hydrology  3 Credits
2. For more education 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: gradinter@mahidol.ac.th