

Admission Number

3	8	0	3	D	G	0	0
---	---	---	---	---	---	---	---

Doctor of Philosophy Program in Environmental and Water Resources Engineering

(International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา วิศวกรรมสิ่งแวดล้อมและทรัพยากรน้ำ (หลักสูตรนานาชาติ)

Faculty of Engineering

คณะวิศวกรรมศาสตร์

Expected number of students to be accepted all year round: 4 Students

Admission Requirements

A candidate must:

1. hold either a Bachelor of Engineering or Science degree
2. Ph.D. Program Plan 1.1 and 2.1 require Master degree in Engineering, Science or related fields with a cumulative GPA of at least 3.50 while Plan 1.2 and 2.2 are specific plans for qualified applicants with Bachelor degree with excellence (a cumulative GPA of at least 3.50)
3. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 3 or
 - TOEFL INTERNET BASED - at least 32 or
 - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
 - Application without submitting a valid English certificate will NOT be considered.
 - MU English Competence Standards: www.grad.mahidol.ac.th
 - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies.
Tel. 0-2441-4125 ext. 221-222
4. Exceptions from the above requirements may be made by the Program Committee and the Dean of Faculty of Graduate Studies

Written Examination

There is NO written examination for this program. Applicants must check their eligibility for interview upon the announcing date of the interview list which is scheduled for each admission round.

Curriculum Structure

Plan 1 Additional non-credit courses may be assigned to enroll with supervisors' agreement

	Type 1.1 (For student with Master's degree)	Type 1.2 (For student with Bachelor's degree)
Dissertation	48 Credit	72 Credit
Total (not less than)	48 Credit	72 Credit

Plan 2

	Type 2.1 (For student with Master's degree)	Type 2.2 (For student with Bachelor's degree)
Required Courses	6 Credit	12 Credit
Elective Courses (not less than)	6 Credit	12 Credit
Dissertation	36 Credit	48 Credit
Total (not less than)	48 Credit	72 Credit

Credit**Required Courses**

Type 2.1 (Student with Master's degree)

EGEW 611 Advanced Research in Environmental and Water Resources Engineering 3 (3-0-6)

EGEW 612 Experimental Design and Modeling 3 (3-0-6)

Type 2.2 (Student with Bachelor's degree)

EGEW 611 Advanced Research in Environmental and Water Resources Engineering 3 (3-0-6)

EGEW 612 Experimental Design and Modeling 3 (3-0-6)

EGEW 621 Water Quantity and Quality Assessment : Best Management Practices 3 (3-0-6)

EGEW 622 Pollution Prevention and Control 3 (3-0-6)

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 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)

EGEW 550 Eco-efficient Engineering 3 (3-0-6)

EGEW 551 Environmental Impact Assessment 3 (3-0-6)

EGEW 552 Stochastic Prediction Model of Water Resources Data 3 (3-0-6)

EGEW 553 Natural Disaster Planning and Management for Water Resources Engineering	3 (3-0-6)
EGEW 554 Geoinformatics for Watershed Management	3 (3-0-6)

Dissertation

EGEW 898 Dissertation (Type 1.1)	48(0-144-0)
EGEW 899 Dissertation (Type 1.2)	72 (0-216-0)
EGEW 699 Dissertation (Type 2.1)	36 (0-108-0)
EGEW 799 Dissertation (Type 2.2)	48 (0-144-0)

**** Courses may change in case of curriculum revision**

Additional advantages of the programme

- International Environment
 - Problem based learning
 - International Collaborations
- Memorandum of Understanding (MOU) for research collaboration and academic exchange were signed with many Universities such as Seoul National University, South Korea; Kyoto University, Japan; National University of Singapore, Singapore; State University of New York College at Buffalo, USA; Aalborg University, Denmark; Technical University of Hamburg, Germany and Liverpool John Moores University, UK.

Research Areas

- Natural and Advanced Techniques for Water and Wastewater Treatment
- Emerging Micropollutants
- Integrated Water Resources Management Systems
- Life Cycle Assessment and Eco-efficient Engineering
- Industrial Pollution Prevention and Control
- Solid and Hazardous Waste Management

Concept paper Presentation

It is recommended that the candidate prepare a concept paper (2-3 pages)

Details of Scholarship

- Grants through project and funding from many agencies are also available.

Application Process

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

Required Documents

- Applicants must upload all documents via online admission system. All documents must be in PDF format (maximum size 2 MB). Photograph must be in JPEG format
- Recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation (for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion)
- A grade report with course names and grades received from the first to the current semester prior to graduation
- A copy of identification card
- A copy of house registration certification
- A copy of Certificate of English proficiency : IELTS / TOEFL INTERNET BASED / TOEFL ITP
- A copy of proof of payment.

Job opportunity after graduation

1. Water resource engineer, environmental engineer in Private and Public sectors.
2. Researcher and university Professors at national, regional and International levels.
3. Consultants for the Private and Public Sectors.

Further information may be obtained from the Director of Graduate Studies, Environmental And Water Resources Engineering:

Visiting Prof.Dr. Ranjna Jindal (E-mail : ranjna.jindal@gmail.com)

Room 6386, 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

Dr. Nawatch Surinkul (E-mail : nawatch.sur@mahidol.ac.th)

Faculty of 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

Program Coordinator

Miss Sulinda Nuanprasong (E-mail : sulinda.nua@mahidol.ac.th)

Faculty of 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 For more educational information : 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