

Course Detail

Master of Science/Master of Engineering in Environmental Technology and Management

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| Course Title: | Environmental Technology and Management |
| Master Degree: | Master of Science/Master of Engineering (Environmental Technology and Management) |
| Academic Institution: | The Joint Graduate School of Energy and Environment (JGSEE), King Mongkut's University of Technology Thonburi (KMUTT) |
| Duration: | 2 Academic Years (August 2021 – July 2023) |

Background and Rationale:

Graduates from the Master of Science/Master of Engineering program in Environmental Technology and Management will demonstrate professionalism through their technical and academic knowledge and capabilities in practical problem-based research, and their morals and ethics towards sustainability and self-sufficiency development pathway, and the society. They will be able to conduct collaborative research and/or technical works at the local, national, and regional (e.g. GMS, ASEAN, etc.) levels on energy related environmental issues, including air quality, acid deposition and regional haze pollution, and global warming and climate change. Their abilities and skills include energy and environmental data and information analysis, diagnosis, and synthesis in order to develop, adapt and select appropriate technologies, methods and approaches, enabling a country to go towards green economy and sustainable development. Their professionalism should significantly benefit countries in the Asia-Pacific region as well as others in the world that are on the way of rapid growth development under the context of globalization.

Objectives

- To produce graduate scientists and engineers who have acquired advanced theoretical and practical knowledge and skill in the fields of energy and environment, professionally capable to analyze and synthesize data into key findings to be disseminated to stakeholders in native language and in English.
- To produce graduate environmental scientists and engineers who possess capabilities to judge what impacts on the environment are related to energy production and use.
- To promote capacity building by hands-on research and energy related environmental issues and challenges solving for both public and private sectors.

- Other

JEE 604 Special Study II 3 credits

JEE 605 Special Study III 3 credits

3. Elective Courses 3 credits

Select a 3 credit-course as recommended by advisor from the following list

JEE 604 Special Study II 3 credits

JEE 605 Special Study III 3 credits

JEE 606 Mathematical Techniques 3 credits

JEE 645 Clean Technologies for Solid Fuels 3 credits

JEE 647 Design of Suitable Urban Ecology 3 credits

JEE 649 Energy Entrepreneurship 3 credits

JEE 653 Solar Energy 3 credits

JEE 656 Energy Efficiency 3 credits

JEE 658 Renewable Energy Technologies 3 credits

JEE 659 Energy from Biomass 3 credits

JEE 661 Tropical Climates and Boundary Layer Science 3 credits

JEE 664 Atmospheric and Air Quality Modeling 3 credits

JEE 671 Life Cycle Assessment 3 credits

JEE 673 Waste and Climate Change 3 credits

JEE 674 Waste to Energy and Its Sustainable Mitigation 3 credits

JEE 681 Environmental Chemistry and Toxicology 3 credits

JEE 682 Environmental and Health Risk Assessment 3 credits

JEE 684 GIS and Remote Sensing 3 credits

JEE 685 Climate Change: Physical Science Basis 3 credits

JEE 691 Climate Change Policy 3 credits

JEE 696 Greenhouse Gas Measurement, Mitigation
and Monitoring Technology 3 credits

JEE 703 Selected Topics I 3 credits

JEE 713 Selected Topics II 3 credits

4. Thesis

Plan A 2-1

JEE 640 Thesis 21 credits

Plan A 2-2

JEE 620 Thesis 12 credits

5. Internship

Plan A 2-2

JEE 616 Internship 9 credits

6. English Courses (Without Credit)

LNG 601 Foundation English for International Programs S/U*

LNG 602 Thesis Writing S/U

* Only for students with condition to improve English skill since admission

Graduation Conditions:

- **Earning credits:** The students are required to pass all the subjects (40 Credits) with minimum grade of each subject must be above C and the total average grade (GPA) must be above 3.00
- **Publications and research results:** 1 National Journal Paper

Applicant Qualifications:

M.Sc program must hold a first degree in engineering, science, economics, technology, agriculture or related fields. M.Eng program must hold in engineering only, with a minimum GPA of 2.50, or be ranked top 25% of the class. Applicants with other qualifications may be admitted on a case by case basis subject to the approval of JGSEE's Executive Committee.

Document Required:

- A copy of passport (Bio page)
- 1 Inch size photo
- Full transcript with date of graduation
- 3 letters of recommendation
- Tentative proposal
- English proficiency test result (IELTS 6, TOEFL iBT 78, International program within 2 years)

Contact:

- Mr. Yuthasak Ngamsaeng
Head of Academic Services Section
Tel: 02-470-8338
E-Mail: yuthasak@jgsee.kmutt.ac.th , yuthasakng@gmail.com
- Mr. Adisorn Jeungprasopsuk
Academic Officer
Tel: 02-470-8338
E-Mail: adisorn@jgsee.kmutt.ac.th , adisorn.adisorn.jeu@mail.kmutt.ac.th

For more information:

Bureau of International Cooperation on Human Resources Development
Thailand International Cooperation Agency (TICA)
Government Complex, Building B (South Zone), 8th Floor,
Chaengwattana Rd. Laksi District, Bangkok 10210 THAILAND
Tel. +66 (2) 203 5000 ext. 43305, 43306 Fax: +66 (2) 143 8451
E-mail: tipp@mfa.mail.go.th

***The application procedure will complete when TICA has received the hard copy of the application form and other related documents through the Royal Thai Embassy/Permanent Mission of Thailand to the United Nations/Royal Thai Consulate – General accredited to eligible countries/territories.