

**Course Title****Master of Science/Master of Engineering (Environmental Technology & Management)****Master Degree:** Master of Science/Master of Engineering (Environmental Technology & Management)**Academic Institution:** The Joint Graduate School of Energy & Environment, King Mongkut's University of Technology Thonburi**Duration:** 2 years**Objectives:**

1. To educate advanced level engineers and scientists equipped with a mix of fundamental knowledge in energy and Environmental technology as well as management, analytical skills and communication skills in English, and a professional orientation.
2. To nature future energy and Environmental engineers and scientists with a sound appreciation of the potential impacts on the environment due to energy production and use.
3. To contribute to the body of knowledge and solutions of challenging energy related environmental problems in industry or at governmental level.

**Course Content/Study Topic:**

<u>Compulsory Courses</u>	7 credits
Plan A-1	Credit
JEE 601 Seminar for M.Eng/M.Sc (Energy Technology & Management)	1
JEE 613 Research Methodology	3
JEE 625 Energy and Environmental Economics, Management and Policy	3
<u>Specific Compulsory Courses</u>	9 credits
Plan A-1 (Select at least 3 courses based on student research focus)	Credit
- Advanced Fuel Processing Laboratory (AFPL)	
JEE 642 Fuels and Combustion	3
JEE 643 Energy System Modeling	3
JEE 657 Catalytic Processes and Reaction Engineering	3
JEE 658 Renewable Energy Technologies	3
JEE 659 Energy from Biomass	3

- Building Energy Science and Technology Laboratory (BEST)	
JEE 633 Energy Management in Industry	3
JEE 634 Climate Influence on Buildings and End-use Requirements	3
JEE 635 Building Utility Design and Waste Management	3
JEE 636 Building Performance Assessment	3
JEE 637 Daylighting Applications	3
JEE 638 Advanced Topics in Building Energy Technology	3
JEE 639 Building Economics and Finance	3
JEE 647 Design of Suitable Urban Ecology	3
- Tropical Climate Science Modeling Laboratory (TCSM)	
JEE 661 Tropical Climates and Boundary Layer Science	3
JEE 664 Atmospheric and Air Quality Modeling	3
JEE 666 Atmospheric Science	3
JEE 669 Physical Oceanography and Ocean Modeling	3
- Advanced Greenhouse Gases and Aerosols Research Laboratory (AGAR)	
JEE 673 Waste and Climate Change	3
JEE 685 Climate Change: Physical Science Basis	3
JEE 694 Carbon Mechanism Management and Business	3
JEE 695 Greenhouse Gas Mitigation Technology	3
JEE 696 Greenhouse Gas Measurement, Monitoring and Accounting	3
- Life Cycle Sustainability Assessment Laboratory (LCSAL)	
JEE 667 Environmental Pollution Control Technology	3
JEE 671 Life Cycle Assessment	3
JEE 681 Environmental Chemistry and Toxicology	3
JEE 682 Environmental and Health Risk Assessment	3
JEE 683 Energy and Environment	3
JEE 684 GIS and Remote Sensing	3

- Energy and Environmental Policy Laboratory (EEPL)	
JEE 626 Energy and Environmental Econometric Modeling and Analysis	3
JEE 627 Foundation of Economics	3
JEE 628 Financial Analysis and Project Appraisal	3
JEE 631 Strategic Planning and Project Management	3
JEE 697 Energy Outlook and Green House Gases Emissions in ASEAN	3
- Others	
JEE 603 Special study I	3
<u>Elective Courses</u>	3 credits
Plan A-1	Credit
- Elective As recommended by advisor	3
<u>Thesis/ Internship/ Research study</u>	
Plan A-1	21 credits
JEE 640 Thesis	

**Qualification:**

1. The applicant must hold a first degree in Engineering, Science, Technology with the least final GPA of 2.75 or is placed in the top 25% of the class or being approved by Curriculum committee.

2. Applicant should pass English entrance examination conducted by KMUTT or pass standard English proficiency test standard TOFEL –PBT 500 score, TOFEL-iBTO 61 score, IELTS 5.5.

3. It is recommended that applicants should consult with their would-be supervisor on the possible thesis topic before applying.

**Graduation requirements:**

1. Complete all course requirements of the program.
2. Satisfy the English proficiency requirement.
3. Have at least one article published in National journal accepted by The Joint Graduate School of Energy & Environment.
4. Complete a thesis of original research work and successfully defend it.

**Document Required:**

1. 1 Recent Photograph of 1-inch size
2. Transcript (if incompletes, must be submit certify letter)
3. ID Card or Copy of Passport (Bio page)
4. 3 Letters of Recommendations
5. Interview Evaluation Form (for an approach supervisor only)
6. Tentative Proposal
7. Result of English Performance Test

**Closing Date for Nominations:**

First semester in May 2018, Second semester in November 2018

**Late or incomplete applications/documents will not be considered.**