

**Master of Engineering/Master of Science Program in Environmental Technology and Management  
(International Program)**

M.Eng. (Environmental Technology and Management)

M.Sc. (Environmental Technology and Management)

**Philosophy:**

The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi has the founding philosophy to be a national center of excellence for education and training in energy technology. It aims to produce high caliber human resources for science and technology related to energy and environment as a result of the impact of the production and utilization of energy. The Master of Engineering/Master of Science in Environmental Technology and Management program intends to produce professional engineers with international standard. This program also meets the school's philosophy to produce high quality personnel with professional ethics who are responsible for society. The graduates can effectively solve practical problems occurring in industrial and government sectors.

**Objectives:**

1. To develop leading edge engineers and scientists with integrated knowledge in energy technology and environment theories, analytical skills and communication skills in English related to the profession.
2. To produce engineers and scientists in environment who have profound knowledge on the impact of the production and utilization of energy.
3. To promote practical knowledge creation and solve environmental problems resulting from the impact of energy production and utilization in government and private sectors.

**Qualifications of a prospective candidate:**

1. Has a bachelor's degree in science/ engineering or technology from tertiary institutes approved by the Office of Civil Service Commission or the University Council with a GPA not less than 2.75 or the institutes' program faculties have considered appropriate for studying in the program, or
2. Has a bachelor's degree in science/ engineering or technology from tertiary institutes approved by the Office of Civil Service Commission or the University Council and has research studies published nationally or internationally or the institutes' program faculties have considered appropriate for studying in the program.
3. Has English proficiency according to the level required by JGSEE
4. Has other qualifications as stipulated by JGSEE.

**Professions after graduation:**

1. Scientists or researchers in environment or energy and environment
2. Academics in environment or energy and environment
3. Analysts and planners in environmental policy
4. Lecturers
5. Consultants in environment and energy and environment

6. Database administrators in environment and energy and environment
7. Project coordinators/Consultants in environment and carbon reduction mechanisms
8. Specialists in energy in government and private sectors

### Curriculum

Plan A-1: Program component thesis 21 credits and graduation requirements at least 1 national journal paper

Plan A-2: Program component thesis 12 credits and internship or international internship 9 credits, graduation requirements at least 1 international conference paper

Plan B: Program component Research study 6 credits.

### Curriculum Components

Course	Plan		
	Plan A-1	Plan A-2	Plan A-B
<u>Compulsory</u>	7	7	7
<u>Specific Compulsory Course</u>	9	9	9
<u>Elective</u>	3	3	18
<u>Internship or international internship</u>	-	9	-
<u>Research study</u>	-	-	6
<u>Thesis</u>	21	12	-
Total	40	40	40

### COURSE STRUCTURE

#### Plan A-1, Plan A-2

#### Semester 1

JEE 611 Seminar for M.Eng/M.Sc (Environmental Technology & Management)	1 (1-0-3)
JEE 613 Research Methodology	3 (3-0-9)
JEE 625 Energy and Environmental Economics, Management and Policy	3 (3-0-9)
JEE XXX Specific Compulsory Course (research group)	3 (3-0-9)
JEEXXX Specific Compulsory Course (research group)	3 (3-0-9)
Total	13 credits

#### Semester 2

JEE XXX Specific Compulsory Course (research group)	3 (3-0-9)
XXX Elective (As recommended by advisor)	3 (3-0-9)
JEE 640 Thesis	6 (0-0-18)
Total	12 credits

Semester 3

Study Plan	Plan	
	Plan A-1	Plan A-2
JEE 640 Thesis (Environmental Technology & Management)	9	-
JEE 616 Internship/ JEE 617 International Internship	-	9
Total	9	9

Semester 4

Study Plan	Plan	
	Plan A-1	Plan A-2
JEE 640 Thesis (Environmental Technology & Management)	6	-
JEE 620 Thesis (Environmental Technology & Management)	-	6
Total	6	6

**Plan B**

Semester 1

JEE 611 Seminar for M.Eng/M.Sc (Environmental Technology & Management)	1 (1-0-3)
JEE 631 Strategic Planning and Project Management	3 (3-0-9)
JEE 625 Energy and Environmental Economics, Management and Policy	3 (3-0-9)
JEE 623 Principle of Accounting and Financial Management	3 (3-0-9)
JEE 624 Principle of Management and Administration	3 (3-0-9)
Total	13 credits

Semester 2

JEE 629 Marketing Research	3 (3-0-9)
JEE 634 Climate Influence on Buildings and End-Use Requirements	3 (3-0-9)
JEE 653 Solar Energy	3 (3-0-9)
JEE 658 Renewable Energy Technologies	3 (3-0-9)
Total	12 credits

Semester 3

JEE 659 Energy from Biomass	3 (3-0-9)
JEE 671 Life Cycle Assessment	3 (3-0-9)
JEE 698 Carbon Trading	3 (3-0-9)
Total	9 credits

Semester 4

JEE 618 Research study	6 (0-0-18)
Total	6 credits