Doctor of Philosophy Program in Energy Technology (International Program)

Ph.D (Energy Technology)

Philosophy of the Program:

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 research 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. Doctor of Philosophy Program in Energy Technology intended to produce qualified personnel in research and technology development of new energy. It focusses on research so that research studies will be analyzed and synthesized with the utmost aim of creating or developing a new body of knowledge to solve the problem of energy crisis and the release of greenhouse gases locally and internationally. It also aims at producing high quality research studies with international standard. This philosophy can properly suit its determination to produce high quality personnel with professional ethics who are responsible for the society. The graduates can analyze and create a new body of knowledge for solving problems related to energy and its impact from the production and the utilization of energy locally and internationally to fulfill the needs for human resources. It is expected that the graduates can be the think tank of government and the private sector to drive Thailand towards a knowledge-based society in the near future.

Professions after graduation

1. Scientists and researchers
2. Energy specialists
3. Energy policy planning analysts
4. Lecturers
5. Energy consultants
6. Energy database administrators
7. Energy project coordinators
8. Energy specialists in government and private sector in the following fields:
   - ☐ Energy policy analysis and planning
   - ☐ Energy management and administration in industrial sectors and buildings
   - ☐ Production, transformation and distribution of fuels and energy
   - ☐ Production process system and energy system in energy-intensive industries especially cement industry, ceramics, steel, petro chemistry, pulp and paper
   - ☐ Development of alternative energy

Curriculum

Plan 2.1 for student with Master degree	55	Credits
Plan 2.2 for student with Bachelor degree	75	Credits

Curriculum Components

Plan 2.1 for student with Master degree

- ☐ Major Course 7 Credits
- ☐ Elective Course 6 Credits
- ☐ Dissertation 42 Credits

Plan 2.2 for student with Bachelor degree

- ☐ Major Course 7 Credits
- ☐ Elective Course 18 Credits
- ☐ Dissertation 50 Credits

COURSE STRUCTURE

Plan 2.1 for student with Master degree

First Year/ First Semester		Credits
JEE 701	Seminar for Ph.D (Energy Technology) (Seminar for Ph.D (Energy Technology))	1
JEE 606*	**Mathematical Techniques** (Mathematical Techniques)	3
JEE 607*	Optimization Techniques	3
JEE 613	Research Methodology (Energy Technology)	3
XXX	Elective (As recommended by advisor)	3
XXX	Elective (As recommended by advisor)	3
Total		**13**

First Year/ Second Semester		Credits
JEE 702	Dissertation for Ph.D (Energy Technology)	9
Total		**9**

Second Year/ First Semester		Credits
JEE 702	Dissertation for Ph.D (Energy Technology)	9
Total		**9**

Second Year/ Second Semester		Credits
JEE 702	Dissertation for Ph.D (Energy Technology)	9
Total		**9**

Third Year/ First Semester		Credits
JEE 702	Dissertation for Ph.D (Energy Technology)	9
Total		**9**

Third Year/ Second Semester		Credits
JEE 702	Dissertation for Ph.D (Energy Technology)	6
Total		**6**

Plan 2.2 for student with Bachelor degree

First Year/ First Semester		Credits
JEE 701	Seminar for Ph.D (Energy Technology)	1
JEE 606*	Mathematical Techniques Mathematical Techniques)	3
JEE 607*	Optimization Techniques	3
JEE 613	Research Methodology (Energy Technology)	3
XXX	Elective (As recommended by advisor)	3
XXX	Elective (As recommended by advisor)	3
Total		13

First Year/ Second Semester		Credits
XXX	(Elective (As recommended by advisor))	3
XXX	(Elective (As recommended by advisor))	3
XXX	(Elective (As recommended by advisor))	3
XXX	(Elective (As recommended by advisor))	3
Total		**12**

Second Year/ First Semester		Credits
JEE 702	(Dissertation for Ph.D (Energy Technology))	10
Total		**10**

Second Year/ Second Semester		Credits
JEE 702	(Dissertation for Ph.D (Energy Technology))	10
Total		**10**

Third Year/ First Semester		Credits
JEE 702	(Dissertation for Ph.D (Energy Technology))	10
Total		**10**

Third Year/ Second Semester		Credits
JEE 702	(Dissertation for Ph.D (Energy Technology))	10
Total		**10**

Forth Year/ First Semester		Credits
JEE 702	(Dissertation for Ph.D (Energy Technology))	10
Total		**10**