

**1) COURSE TITLE:**

Master of Science (Occupational and Environmental Health)  
(International Programme)

**2) MASTER DEGREE:**

Master of Science (Occupational and Environmental Health)  
M.Sc. (Occupational and Environmental Health)

**3) ACADEMIC INSTITUTION:**

Faculty of Public Health, Thammasat University

**4) DURATION:**

18 months (minimum)

**5) BACKGROUND AND RATIONAL**

This course aims to produce researchers with special skills in these areas equipped with up-to-date knowledge of relevant technological innovations. There is comprehensive coverage of theory and practice and an emphasis on the development of research skills enabling students to apply their knowledge to find practical solutions to real public health issues.

The M.Sc. provides the necessary skills, knowledge, and competencies to enable students to critically evaluate risk posed by the full range of occupational and environmental health hazards, or stressors, which have impacts on human health and well-being. Courses will be delivered by academic staff with wide practical experience as well as active research interests.

The course is conducted using a practically-based teaching and learning processes including lectures, workshops, group work, case studies, practical assignments, site visits, and student centered learning. This ensures graduates to gain experience on the challenge of current problem-based research and state of the art methods.

This program offers several specialized subjects in three fields; occupational health, ergonomics, and safety and environmental health. It will be conducted in a semester system with 36 credits in total. For the first two semesters, students focus on core compulsory courses and scientific topics related to their selected fields of study. Elective courses complement the core courses and their interested research topics.

**6) OBJECTIVES:**

The M.Sc. (Occupational and Environmental Health) provides graduates with: 1) developing technical competence necessary to successful academic and professional work; 2) acquiring and integrating knowledge and skills from a variety of occupational and environmental health perspectives in order to become effective problem solvers, innovators, and decision makers; and 3) mastering the knowledge and practice in occupational and environmental health through the process of research and field practice.

**7.1) STUDY PLAN**

FIRST YEAR			
Plan A (Thesis Track)		Plan B (Independent Study Track)	
First semester		First semester	
OE601 Statistics and Research Methodology	3 credits	OE601 Statistics and Research Methodology	3 credits
OE611 Occupational and Environmental Epidemiology	3 credits	OE611 Occupational and Environmental Epidemiology	3 credits
OE631 Occupational and Environmental Health	3 credits	OE631 Occupational and Environmental Health	3 credits
OE6xx Compulsory in concentration	3 credits	OE6xx Compulsory in concentration	3 credits
OE6xx Compulsory in concentration	3 credits	OE6xx Compulsory in concentration	3 credits
<b>Total</b>	<b>15 Credits</b>	<b>Total</b>	<b>15 Credits</b>
Second semester		Second semester	
OE661 Occupational and Environmental Health Seminar	1 credit	OE661 Occupational and Environmental Health Seminar	1 credit
OE6xx Compulsory in concentration	3 credits	OE6xx Compulsory in concentration	3 credits
OE6xx Compulsory in concentration	3 credits	OE6xx Compulsory in concentration	3 credits
OE6xx Electives	3 credits	OE6xx Electives	3 credits
OE800 Thesis	3 credits	OE700 Independent study	3 credits
<b>Total</b>	<b>13 credits</b>	<b>Total</b>	<b>13 credits</b>
SECOND YEAR			
First semester		First semester	
OE800 Thesis	9 credits	OE6xx Electives	3 credits
		OE6xx Electives	3 credits
		OE700 Independent study	3 credits
<b>Total</b>	<b>9 credits</b>	<b>Total</b>	<b>9 credits</b>

## 7.2) COURSE CONTENT/STUDY TOPIC:

### *a. Pre-program workshop*

Although the pre-program workshop is considered as a non-credit co-curricular learning experience, all enrolled students are expected to participate prior to registration in the 1<sup>st</sup> semester of the academic year.

### *b. Core compulsory courses*

Students must complete a total of 9 credits and Occupational and Environmental Health Seminar (credit not counted) of the following Occupational and Environmental Health core courses:

OE 611: Occupational and Environmental Epidemiology	3 (3-0-9)	Credits
OE 601: Statistics and Research Methodology	3 (3-0-9)	Credits
OE 631: Occupational and Environmental Health	3 (3-0-9)	Credits
<b>Compulsory course (credit not counted)</b>		

OE 661: Occupational and Environmental Health Seminar	1 (0-2-4)	Credits
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***c. Compulsory in field courses***

Students must complete a total of 12 credits of the following compulsory courses:

**Concentration on Occupational Health**

OE 621: Occupational and Environmental Toxicology	3 (3-0-9)	Credits
OE 632: Occupational Sampling and Analysis	3 (2-3-7)	Credits
OE 633: Workplace Exposure Assessment and Control	3 (3-0-9)	Credits
OE 634: Risk Assessment and Management	3 (3-0-9)	Credits

**Concentration on Ergonomics and Safety**

OE 641: Safety Engineering	3 (3-0-9)	Credits
OE 642: Safety, Health and Environmental Management	3 (3-0-9)	Credits
OE 643: Human Factors and Ergonomics	3 (3-0-9)	Credits
OE 644: Task Analysis and Design	3 (3-0-9)	Credits

**Concentration on Environmental Health**

OE 621: Occupational and Environmental Toxicology	3 (3-0-9)	Credits
OE 651: Environmental Sampling and Analysis	3 (2-3-7)	Credits
OE 652: Environmental Health Technology	3 (3-0-9)	Credits
OE 653: Environmental and Health Impact Assessment	3 (3-0-9)	Credits

***d. Elective courses***

Plan-A: Students opting for Plan-A must select at least 3 credits of coursework from either minor concentration courses or the following set of free electives courses.

Plan-B: Students opting for Plan-B must select 9 credits of coursework from either minor concentration courses or the following set of free elective courses:

OE 602: Advanced Statistics for Occupational and Environmental Health Research	3 (3-0-9)	Credits
OE 612: Molecular Epidemiology	3 (3-0-9)	Credits
OE 635: Physical Hazards Assessment and Control	3 (3-0-9)	Credits
OE 636: Chemical Hazards Assessment and Control	3 (3-0-9)	Credits
OE 637: Air Pollution and Control	3 (3-0-9)	Credits
OE 645: Occupational Biomechanics	3 (3-0-9)	Credits
OE 654: Waste Management	3 (3-0-9)	Credits
OE 655: Water and Waste Water management	3 (3-0-9)	Credits
OE 656: Disaster Management	3 (3-0-9)	Credits

Thesis (Plan-A)		
OE 800: Thesis	12	Credits

Independent study (Plan B)		
OE 700: Independent Study (Capstone practicum)	6	Credits

## **8) APPLICATIONS QUALIFICATIONS:**

- Hold a B.Sc. or equivalent fields and must have taken at least 2 of the following courses: Chemistry and Analytical Chemistry, Biology, Industrial Hygiene, Occupational Health and Safety, Environmental Health, Toxicology and Statistics.
- Have a minimum grade point average of 2.75
- Have a proven minimum of two years professional experience in Occupational Health and Safety or Environmental Health.
- Minimum TOEFL score of 500 (paper-based) or 173 (computer-based) or IELTS not less than 6.0 or TU-GET not less than 500.
- For all non-native speakers, proven English language proficiency is a precondition for program enrolment.

## **9) DOCUMENTS REQUIRED:**

- Completed application form
- Copy of degree certificates
- Copy of degree transcripts
- Copy of TOEFL or IELTS test score sheet
- Copy of valid passport
- Letter of reference
- Medical certificate

## **10) CONTACT**

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## **11) Coordinators**

Ms. Sirada Sahaimitr

Ms. Prapaporn Pansuwan