

**Master of Science (Public Health Infectious Diseases and Epidemiology)**  
**Faculty of Public Health, Mahidol University**

| <b>Information on Courses</b> |  |
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| 1                             | <b>Course Name: Thesis</b>   |
| 2                             | <b>Course code: PHIE 698</b>   |
| 3                             | <b>Name(s) of Course Director:</b><br>1) Assistant Professor Dr. Fuangfa Utrarachkij<br>2) Assistant Professor Dr. Tawee Saiwichai<br>3) Assistant Professor Dr. Sukhontha Siri  |
| 4                             | <b>Rationale for the inclusion of the course in the program:</b><br>This course is designed to help students develop their critical thinking, analytical and research skills on developing Master's thesis in the Master of Science (Public Health Infectious Diseases and Epidemiology).  |
| 5                             | <b>Semester/year Offered: 1-2/2</b>  |
| 6                             | <b>Credit value: 12 credits (0-48-0)</b>   |
| 7                             | <b>Objective (s) of Course:</b><br>At the end of this course students should be able to:<br>1. Identify and create a research proposal of special interest.<br>2. Demonstrate the ability to conduct a research relevant to infectious diseases and epidemiology in public health.<br>3. Demonstrate writing skills by writing a clear research proposal and thesis with scientifically based concepts.<br>4. Develop effective communicative skills to present research of interest, methods, findings, and conclusions.  |
| 8                             | <b>Course learning outcome (CLO):</b><br>On successful completion of this course students will be able to:<br>1. Conduct independent research on microbiology, parasitology, and epidemiology in public health.<br>2. Demonstrate skills in critical thinking, data analysis and interpretation, and writing in public health infectious diseases and epidemiology.<br>3. Produce a thesis of good quality to be published in scientific journal or Proceedings in public health infectious diseases and epidemiology.<br>4. Effectively present and defend research project orally on emerging, re-emerging |

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|     | and non-communicable diseases .   |
| 9.  | <b>Transferable skill:</b><br>Critical thinking skill, analytical skill, writing skill, and communication skill   |
| 10. | <b>Teaching and learning assessment strategy:</b><br>Course evaluation by students and course verification by program committee at the end of this course   |
| 11. | <b>Course description:</b><br>Research on infectious diseases and epidemiology in public health; bioinformatics of microbiology, parasitology and entomology; mathematical model and geographic information system; application of microbiological, parasitological, and epidemiological methods in disease prevention and control; ethical research practice |
| 12. | <b>Teaching methods:</b><br>teaching with discussion, process supervision, doing experiment, and practice.  |
| 13. | <b>Evaluation methods and types:</b><br>Proposal and thesis examination.  |

#### 15. Content outline of the course/module and SLT per topic

| Topic   | CLO        | No. of Hours |          |    |     |
|---|------------|--------------|----------|----|-----|
|   |            | Lecture      | Practice | SL | TLT |
| 1. Literature review to create research proposal                            | 1, 2       | 0            | 48       | 0  | 48  |
| 2. Research proposal writing and examination                                | 1, 2       |              |          |    |     |
| 3. Research conducting: data collection, result analysis and interpretation | 1, 2       |              |          |    |     |
| 4. Thesis progress report   | 1, 2, 4    |              |          |    |     |
| 5. Thesis writing   | 1, 2, 3    |              |          |    |     |
| 6. Thesis examination   | 1, 2, 3, 4 |              |          |    |     |
| 7. Thesis publication in scientific journal or Proceedings                  | 1, 2, 3, 4 |              |          |    |     |
| Total   |            | 0            | 48       | 0  | 48  |

Note : SL = self-learning, TLT = total learning time