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**Doctor of Philosophy Programme in Medical Microbiology (International Programme)**

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา จุลชีววิทยาการแพทย์ (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Medicine, Siriraj Hospital

Department of Microbiology

คณะแพทยศาสตร์ศิริราชพยาบาล

ภาควิชา จุลชีววิทยา

**Expected number of Students to be accepted year round: 2 Students**

**Admission Requirements**

**1. A candidate must:**

**For Plan 1**

**For the applicant who holds bachelor's degree,**

- 1.1. have a grade point average of at least 3.25;
- 1.2. hold a bachelor's degree in Veterinary Medicine, Dentistry, Medicine, Pharmacy, Sciences of various majors from an institution recognized by Mahidol University AND is currently in or finished the Field Epidemiology Training Program (FETP) of the Bureau of Epidemiology, Ministry of Public Health OR is currently under the Subspecialty Board of Infectious Diseases training and seeking the dual-degree in Medical Microbiology. The course director of both programs has to agree upon the applicant's application

**For the applicant who holds master's degree,**

- 1.1. have a grade point average of at least 3.25;
- 1.2. be a physician who holds a Diploma of Subspecialty Board of Infectious Diseases or the Diploma of Subspecialty Board of Clinical Pathology; or hold a Master's degree of the microbiology-related major from an institution recognized by Mahidol University AND/OR with at least five years of experience in microbiology field AND is the first or corresponding author of at least one non-thesis publication in the peer review international journal

**For Plan 2**

**For the applicant who holds bachelor's degree,**

- 1.1. have a grade point average of at least 3.5 (candidates with a lower GPA may be eligible with the permission of the Program Committee);
- 1.2. hold or be pursuing a bachelor's degree (in the last semester) in Microbiology, Biology, Biochemistry, Botany, Genetics, Biotechnology, Medical Technology, Pharmacy, Dentistry, Veterinary Medicine, Medicine or other related fields from an institution recognized by Mahidol University

**For the applicant who holds master's degree,**

- 1.1. have a grade point average of at least 3.5 (candidates with a lower GPA may be eligible with the permission of the Program Committee);
- 1.2. hold or be pursuing a master's degree (in the last semester) in microbiology or other related fields from an institution recognized by Mahidol University

For the master's degree trainee who wish to be transferred into the doctoral program must be granted by the course director and have a grade point average of at least 3.5 and,

2. Submit a certificate of English proficiency with minimum admission score:
  - IELTS - at least 3 or
  - TOEFL INTERNET BASED - at least 32 or
  - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
  - Application without submitting a valid English certificate will NOT be considered.
  - MU English Competence Standards: [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)
  - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies. Tel. 0-2441-4125 ext. 221-222
3. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

**Written Examination** (Applicants must attend the examination date accurately to your admission round)

Subjects for examination	Time (Morning session)
1. Biochemistry 2. Microbiology	} 9.00 - 11.00 a.m.
<b>Examination Place</b> Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a>	

## Curriculum Structure

### Credit

#### Plan 1

##### **For students with Bachelor's degree**

Thesis 72

##### **For students with Master's degree**

Thesis 48

#### Plan 2

##### **For students with Bachelor's degree**

Required Courses 17

Elective Courses no less than 7

Thesis 48

##### **For students with Master's degree**

Required Courses 6

Elective Courses no less than 6

Thesis 36

### Credit

#### Plan 1

##### **Required Courses**

##### **For students with Bachelor's degree**

SIMI 899 Dissertation 72(0-216-0)

##### **For students with Master's degree**

SIMI 898 Dissertation 48(0-144-0)

#### Plan 2

##### **For students with Bachelor's degree**

##### **Required Courses**

SIMI 512 Medical Bacteriology and Mycology 3(3-0-6)

SIMI 513 Medical Virology 2(2-0-4)

SIMI 613 Advanced Medical Virology 3(3-0-6)

SIMI 616 Diagnostic Microbiology 3(1-6-5)

SIMI 617 Advanced Medical Bacteriology and Mycology 3(3-0-6)

SIMI 688 Current Topics in Medical Microbiology 3(3-0-6)

##### **Elective Courses**

SIIM 501 Immunology 2(2-0-4)

SIID 501 Molecular and Cellular Basis of Biomedicine 3(2-2-5)

SIBC 504 Biochemistry 4(4-0-8)

SIMI 514 HIV/AIDS: Molecular Virology, Immunology and Cell Biology	3(2-2-5)
SIMI 611 Molecular Techniques in Medical Microbiology	3(2-3-5)
SIMI 615 Fundamental of Diagnostic Microbiology	1(1-0-2)
SIMI 618 Advanced Molecular Techniques in Medical Microbiology	3(2-2-5)
SIMI 619 Vaccine Sciences	2(2-0-4)

### **Thesis**

SIMI 799 Dissertation	48(0-144-0)
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### **Plan 2**

#### **For students with Master's degree**

#### **Required Courses**

SIMI 613 Advanced Medical Virology	3(3-0-6)
<b>or</b>	
SIMI 617 Advanced Medical Bacteriology and Mycology	3(3-0-6)
SIMI 688 Current Topics in Medical Microbiology	3(3-0-6)

#### **Elective Courses**

SIIM 501 Immunology	2(2-0-4)
SIID 501 Molecular and Cellular Basis of Biomedicine	3(2-2-5)
SIBC 504 Biochemistry	4(4-0-8)
SIMI 514 HIV/AIDS: Molecular Virology, Immunology and Cell Biology	3(2-2-5)
SIMI 611 Molecular Techniques in Medical Microbiology	3(2-3-5)
SIMI 613 Advanced Medical Virology	3(3-0-6)
SIMI 615 Fundamental of Diagnostic Microbiology	1(1-0-2)
SIMI 617 Advanced Medical Bacteriology and Mycology	3(3-0-6)
SIMI 618 Advanced Molecular Techniques in Medical Microbiology	3(2-2-5)
SIMI 619 Vaccine Sciences	2(2-0-4)

### **Thesis**

SIMI 699 Dissertation	36(0-108-0)
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**\* These may be changed in case of curriculum revision**

### **Additional advantages of the programme**

The Department of Microbiology at the Faculty of Medicine Siriraj Hospital, Mahidol University, has been considered to be one of the best medical microbiology departments in Thailand. There are 17 full-time faculty members with Ph.D. degree with research grants awarded from international and national agencies. The faculty members conduct highly impact research on clinical and molecular-related microbiology especially on emerging infectious pathogens including HIV/AIDS, influenza and avian influenza virus, enteroviruses, mycobacteria, leptospirosis, *Burkholderia pseudomallei*, drug resistant bacteria, etc. The cluster in bacteriology, mycology and virology provides an outstanding training environment and emphasizes research opportunities in cutting-edge molecular techniques, in a wide-range of fields. There

are for research laboratories with well-equipped for molecular and clinical microbiology laboratories, approximately 70 graduate students, 20 researcher scientists (Ph.D. and M.Sc. degree), and 56 technicians in the department. Thus, it is not only large enough to provide a stimulating research environment but also small enough to allow close interactions between the faculty members and graduate students.

All qualified graduate students will be able to receive a scholarship from the Faculty of Medicine. After graduation, they will gain such experience in medical microbiology research, which is highly needed by various organizations, private companies, research institutes and academic institutions. Thus, they will have a good opportunity for their career development. Plan 1 of training offers the Ph.D. training opportunity for the infectious disease professionals or experienced microbiologists who wish to advance their microbiology knowledge and develop advance research skill. The plan features research-oriented training with no course work required.

### **Application Process**

Application is only available via online application at [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

### **Required Documents**

Applicants must upload all documents via online admission system. All documents must be in PDF format (maximum size 2 MB). Photograph must be in JPEG format.

- Recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the last semester prior to graduation (for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion)
- A grade report with course names and grades received from the first to the current semester prior to graduation
- A copy of identification card
- A copy of house registration certification
- A copy of Certificate of English proficiency: IELTS / TOEFL INTERNET BASED / TOEFL ITP
- A copy of proof of payment.

### **Job option after graduation**

- Scientist, researcher, academician, scientific project supervisor who exercises the knowledge in medical microbiology
- Microbiology laboratory director/manager
- Medical microbiology expert
- Other careers where the knowledge in medical microbiology is required such as project analyst, project coordinator, product specialist, etc.

Further information may be obtained from the Director/Secretary of Graduate Studies, Microbiology:

1. **Assistant Professor Dr. Iyarit Thaisuttikul** (Email: [iyarit.tha@mahidol.ac.th](mailto:iyarit.tha@mahidol.ac.th))  
Microbiology Building, Floor 5, Department of Microbiology, Faculty of Medicine, Siriraj Hospital  
Tel: 0 2419 8035 Fax: 0 2418 4148
2. **Lect. Dr. Kamol Suwannakarn** (Email: [kamol.suw@mahidol.ac.th](mailto:kamol.suw@mahidol.ac.th))  
Microbiology Building, Floor 5, Department of Microbiology, Faculty of Medicine, Siriraj Hospital  
Tel: 0 2419 8035 Fax: 0 2418 4148

- Notes**
1. The programme of Medical Microbiology require students to study the pre - requisite course:
    - SIID 501 Molecular and Cellular Basis of Biomedicine 3(2-2-5) Credits
  2. For more education information: <http://www.grad.mahidol.ac.th>

For more information, please contact The Student Admission Section.  
Tel. 0 2441 4125 ext. 208-210 , 0 2441 9129, E-mail : [gradthai@mahidol.ac.th](mailto:gradthai@mahidol.ac.th)