## **Admission Number**

2 1 0 4 D G 0 0

Doctor of Philosophy Programme in Microbiology (International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต สาขาวิชา จุลชีววิทยา (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Science Department of Microbiology

คณะวิทยาศาสตร์ ภาควิชา จุลชีววิทยา

Expected number of students to be accepted all year round: 10 Students

## **Admission Requirements**

#### A candidate must:

- 1. Receive a bachelor degree in Science such as Microbiology, Biology, Biochemistry,
  - Biotechnology, Medical technology, Public Health, Chemical, Food Science, Veterinary, Medicine,
  - Dentistry, Pharmacology, Biological science etc. with an average GPA of at least 3.50
- 2. Receive a master degree in Science such as Microbiology, Biology, Biochemistry,
  - Biotechnology, Medical technology, Public Health, Dentistry, Pharmacology, Chemistry,

Food Science, Biological science etc with an average GPA of at least 3.50

- 3. 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
  - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies. Tel. 0-2441-4125 ext. 221-222
- 4. 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	<b>Time</b> (Morning session)
1. Biology	)
2. Biochemistry	9.00 - 12.00 a.m.
3. Microbiology	J

#### **Examination Place**

Mahidol University, Salaya, Nakhonpathom more details: www.grad.mahidol.ac.th

# **Curriculum Structure**

	Credit
For students with Bachelor's degree	
Required courses	19
Elective courses not less than	5
Dissertation	48
For students with Master's degree in Microbiology	
Immunology or related fields that are approved by the program Committees	
Required courses	7
Elective courses not less than	5
Dissertation	36
For student with Master degree in other related fields	
Required courses	9
Elective courses not less than	3
Dissertation	36

Required courses	Credit
For students with Bachelor's degree	
GRID 521 Research Ethics	1(1-0-2)
SCID 502 Cell Science	2(2-0-4)
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCMI 514 Immunology	1(1-0-2)
SCMI 515 Bacteriology and Mycology	1(1-0-2)
SCMI 516 Virology	1(1-0-2)
SCMI 517 Parasitology	1(1-0-2)
SCMI 602 Advanced Immunology #	3(3-0-6)
SCMI 603 Advanced Parasitology #	3(3-0-6)
SCMI 604 Advanced Virology #	3(3-0-6)
SCMI 605 Microbial Genetics #	3(3-0-6)
SCMI 611 Special Topics in Microbiology	1(1-0-2)
SCMI 612 Microbiology Seminar	1(1-0-2)
SCMI 621 Special Topics in Microbiology II	1(1-0-2)
SCMI 622 Microbiology Seminar II	1(1-0-2)
SCMI 623 Ph.D. Seminar	1(1-0-2)
# For SCMI 602-605 The students need to register only 2 courses One	of the two
has to be related to the student's research topic	

F	a with Manatoda da ana	
	s with Master's degree ents with Master's degree in Microbiology	
	logy or related fields that are approved by the program committees	
	Advanced Immunology #	2/2 0 6)
	Advanced Parasitology *	3(3-0-6)
		3(3-0-6)
	Advanced Virology # Microbial Genetics #	3(3-0-6)
		3(3-0-6)
	Ph.D. Seminar	1(1-0-2)
	602-605 The students need to register only 2 courses One of the two	
nas to be re	elated to the student's research topic.	
2. For stud	ent with Master degree in other related fields	
SCMI 514	Immunology \$	1(1-0-2)
SCMI 515	Bacteriology and Mycology \$	1(1-0-2)
SCMI 516	Virology <sup>\$</sup>	1(1-0-2)
SCMI 517	Parasitology <sup>\$</sup>	1(1-0-2)
SCMI 602	Advanced Immunology #	3(3-0-6)
SCMI 603	Advanced Parasitology #	3(3-0-6)
SCMI 604	Advanced Virology #	3(3-0-6)
SCMI 605	Microbial Genetics #	3(3-0-6)
SCMI 623	Ph.D. Seminar	1(1-0-2)
# For SCMI	602-605 The students need to register only 2 courses One of the two	
has to be re	elated to the student's research topic.	
\$ For SCMI	514-517 The students need to register only 2 courses One of the two	
has to be re	elated to the student's research topic.	
Elective cou	urses	
For student	s with Bachelor's degree	
SCID 500	Cell and Molecular Biology	3(3-0-6)
SCID 506	Concepts of Molecular Bioscience	2(2-0-4)
SCID 507	Microscopic Technique	1(0-2-1)
SCID 508	Biomolecular and Spectroscopy Techniques	1(0-2-1)
SCID 509	Separation Techniques	1(0-2-1)
SCID 510	Immunological Methods	1(0-2-1)
SCID 511	Gene Technology	1(0-2-1)
SCID 512	Receptor Binding and Enzyme Kinetic Assays	1(0-2-1)
	Animal Cell Culture Techniques	1(0-2-1)
SCID 513		• •
SCID 513 SCID 514	Animal Experimentation in Biomedical Research	1(0-2-1)

Immunology or related fields that are approved by the program committee	
2DID F01 Decemb F4bics	ees
GRID 521 Research Ethics	1(1-0-2)
SCID 518 Generic Skills in Science Research **	1(1-0-2)
SCID 502 Cell Science	2(2-0-4)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 507 Microscopic Technique	1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques	1(0-2-1)
SCID 509 Separation Techniques	1(0-2-1)
SCID 510 Immunological Methods	1(0-2-1)
SCID 511 Gene Technology	1(0-2-1)
SCID 512 Receptor Binding and Enzyme Kinetic Assays	1(0-2-1)
SCID 513 Animal Cell Culture Techniques	1(0-2-1)
SCID 514 Animal Experimentation in Biomedical Research	1(0-2-1)
SCID 516 Biostatistics	3(3-0-6)
SCMI 621 Special Topics in Microbiology II	1(1-0-2)
SCMI 622 Microbiology Seminar II	1(1-0-2)
** Only in the case that the student have, never taken this or related course.	
2. For student with Master degree in other related fields	
GRID 521 Research Ethics	1(1-0-2)
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCID 502 Cell Science	2(2-0-4)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 507 Microscopic Technique	1(0-2-1)
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·	1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques	` ,
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques	1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods	1(0-2-1) 1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques	1(0-2-1) 1(0-2-1) 1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques SCID 514 Animal Experimentation in Biomedical Research	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 3(3-0-6)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques SCID 514 Animal Experimentation in Biomedical Research SCID 516 Biostatistics	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 3(3-0-6) 1(1-0-2)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques SCID 514 Animal Experimentation in Biomedical Research SCID 516 Biostatistics SCMI 621 Special Topics in Microbiology II	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 3(3-0-6) 1(1-0-2)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques SCID 514 Animal Experimentation in Biomedical Research SCID 516 Biostatistics SCMI 621 Special Topics in Microbiology II SCMI 622 Microbiology Seminar II	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 3(3-0-6) 1(1-0-2) 1(1-0-2)
SCID 508 Biomolecular and Spectroscopy Techniques SCID 509 Separation Techniques SCID 510 Immunological Methods SCID 511 Gene Technology SCID 512 Receptor Binding and Enzyme Kinetic Assays SCID 513 Animal Cell Culture Techniques SCID 514 Animal Experimentation in Biomedical Research SCID 516 Biostatistics SCMI 621 Special Topics in Microbiology II SCMI 622 Microbiology Seminar II ** Only in the case that the student have, never taken this or related course.	1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 1(0-2-1) 3(3-0-6) 1(1-0-2)

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#### For students with Master's degree

SCMI 699 Dissertation 36(0-108-0)

\* These may change in cases where there are suggestions for the improvement of the curriculum

## Additional advantages of the programme

The high quality and excellence of the programme is evidenced by the high number of publications published by staff members in international journals.

### Additional information for applicants

Well-equipped laboratory facilities.

#### **Application Process**

Application is only available via online application at 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 final year 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.
- Three letters of recommendation (for International students)

### Job option after graduation

- Lecturer or Academic
- Researcher
- Academic
- Advanced academic specialists in related fields in academic universities or both in medical sciences and applied sciences
- Advanced researchers or research consultants in Molecular genetics, Microbiology and scientific
   Instruments in Government institutions, State enterprises and Private sections

- Advanced specialists or academic consultants of private sections concerning products that are
   Related to molecular genetic, microbes and scientific instruments
- Freelance

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

1. Asst. Prof. Dr. Padungsri Dubbs (E-mail: padungsri.vic@mahidol.ac.th)

Room Pr. 618, Pr. Building, Floor 6,

Department of Microbiology, Faculty of Science.

Tel. : 0 2201 5676 Fax. : 0 2644 5411

## **Program Coordinator**

Miss. Wanitchaya Jantarat (E-mail: annakung1430@gmail.com)

Room Pr. 606, Pr. Building, Floor 6,

Department of Microbiology, Faculty of Science.

Tel.: 0 2201 5673 Fax.: 0 2644 5411

#### <u>Notes</u>

1. The programme of Microbiology requires students to study the pre - requisite course:

- SCID 500 Cell and Molecular Biology 3 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