

Admission Number

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**Doctor of Philosophy Programme in Biopharmaceutical Sciences (International Programme)
Faculty of Pharmacy**

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

Programme provided 4 majors

1. Microbiology
2. Biochemistry
3. Pharmacology
4. Physiology

Admission Requirements

A candidate must:

1. Graduated and Fourth year student (final year) in Biology, Biomedical Sciences , Health Sciences and related areas.
2. Have a minimum grade point average of 3.5
3. Meet the admission requirements of the Faculty of Graduate Studies;
4. Has to submit an abstract of 1-3 pages concerning the performed research or the proposed research topic 2 days before the interview (e-mail : surunchana.kae@mahidol.ac.th).

The interview will start with a 40- minute power point presentation by an applicant.

5. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 4 or
 - TOEFL INTERNET BASED - at least 45 or
 - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 450

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 Language Center 0-2441-4125 ext. 221-222
6. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

Written Examination

There is NO written examination for this program. Applicants must check their eligibility for interview upon the announcing date of the interview list which is scheduled for each admission round.

Curriculum Structure

	Credit
For students with Master's degree	
Core Courses	3
Required Courses (vary by major)	6
Elective Courses no less than	3
Thesis	36
For students with Bachelor's degree	
Core Courses	12
Required Courses (vary by major)	6
Elective Courses no less than	6
Thesis	48

	Credit
Core Courses and Required Courses	
For students with Master's degree	
Core Courses	
PYID 667 Integrative Seminar in Biopharmaceutical Sciences	1(1-0-2)
PYID 679 Current Topics in Biopharmaceutical Sciences	2(2-0-4)
Required Courses (vary by major) students must enroll for only 1 major	
Microbiology	
PYMI 684 Applied Microbiology in Pharmacy	3(2-3-5)
PYMI 686 Pharmaceutical Biological Products	3(3-0-6)
Biochemistry	
PYBC 674 Advanced Biopharmaceutical Biochemistry	3(3-0-6)
PYBC 675 Biochemical Knowledge of Chemical and Biological Warfare	3(3-0-6)
Pharmacology	
PYPM 684 Special Topics in Pharmacology	3(3-0-6)
PYPM 685 Advanced Pharmacology	3(3-0-6)
Physiology	
PYPS 691 Physiological Control System	3(3-0-6)
PYPS 692 Special Topics in Physiology	3(3-0-6)

Core Courses and Required Courses**For students with Bachelor's degree****Core Courses**

GRID	603	Biostatistics	3(3-0-6)
SCID	500	Cell and Molecular Biology	3(3-0-6)
PYID	668	Seminar in Biopharmaceutical Sciences	1(1-0-2)
PYID	669	Special Topics in Biopharmaceutical Sciences I	1(1-0-2)
PYID	679	Current Topics in Biopharmaceutical Sciences	2(2-0-4)
PYID	685	Research Methodology in Pharmacy I	2(2-0-4)

Required Courses (vary by major) students must enroll for only 1 major**Microbiology**

PYMI	684	Applied Microbiology in Pharmacy	3(2-3-5)
PYMI	686	Pharmaceutical Biological Products	3(3-0-6)

Biochemistry

PYBC	668	Instrumental Research Techniques	3(2-3-5)
PYBC	669	Biopharmaceutical Biochemistry	3(3-0-6)

Pharmacology

PYPM	684	Special Topics in Pharmacology	3(3-0-6)
PYPM	685	Advanced Pharmacology	3(3-0-6)

Physiology

PYPS	691	Physiological Control System	3(3-0-6)
PYPS	692	Special Topics in Physiology	3(3-0-6)

Elective Courses**Microbiology**

PYMI	664	Industrial Pharmaceutical Microbiology	3(2-3-5)
PYMI	665	Quality Assessment and Microbiological Control	3(2-3-5)
PYMI	694	Biomolecular Techniques for Biopharmaceutical Sciences	3(2-3-5)
PYMI	695	Basic Techniques in Animal Cell Culture	2(1-3-3)

Biochemistry

PYBC	667	Current Topics in Biochemistry	3(3-0-6)
PYBC	670	Human Metabolism	3(3-0-6)
PYBC	671	Biochemical Techniques for Drug Research and Development	4(4-0-8)
PYBC	672	Biochemical Technology Laboratory	2(0-6-2)
PYBC	673	Principle of Biomolecular Analysis	3(3-0-6)

Pharmacology

PYPM 664 Essentials in Toxicology	3(2-3-5)
PYPM 666 Drug Screening Techniques I	3(2-3-5)
PYPM 678 Adverse Drug Actions	3(3-0-6)

Physiology

PYPS 671 Membrane Transport	3(2-2-5)
PYPS 672 Cell Physiology	2(2-0-4)
PYPS 673 Current Topics in Pathophysiology	3(3-0-6)
PYPS 674 Human Physiological Regulation	3(3-0-6)
PYPS 675 Systematic Human Physiology	3(3-0-6)
PYPS 693 Aging and Anti-aging	3(3-0-6)
PYPS 695 Advanced Physiology in Renal System	3(3-0-6)
PYPS 696 Advanced Physiology in Cardiovascular System	3(3-0-6)
PYPS 697 Advanced Physiology in Endocrine System	3(3-0-6)

Thesis

PYID 699 Dissertation	36(0-108-0)
PYID 799 Dissertation	48(0-144-0)

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

Additional advantages of the programme

Pharmaceutical - related biological sciences and Health Sciences.

Additional information for applicants

1. Oral presentation for interested research proposal
2. Should be submitted research proposal 1 week before oral presentation (4 pages)

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

- Research topic, Objective, research plan, Expected outcome, approximately 4 pages.
- 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.

Job option after graduation

1. Biopharmaceutical scholars
2. Research and development of biological product
3. Biopharmaceutical technology and innovation
4. Biopharmaceutical professionals

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

Biopharmaceutical Science:

1. Assist. Prof. Dr. Krit Thirapanmethee (krit.thi@mahidol.ac.th)

209 Room, Rajcharatana Building, 2nd Floor

Department of Microbiology, Faculty of Pharmacy,

Tel: 0 2644 8680-90 Ext.5520 ,1133

Fax: 0 2354-4326

2. Assoc. Prof. Dr. Suchitra Thongpraditchote (suchitra.tho@mahidol.ac.th)

207 Room, Rajcharatana Building, 6th Floor

Department of Physiology, Faculty of Pharmacy,

Tel: 0 2644 8680-90 Ext.5602 ,5608

Fax: 0 2354-4326

Note

1. For more education information : 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**