

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 : 4 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. have a TOEFL score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5.

Those who do not have any of the test scores specified above will have to take the English Proficiency Examination of the Faculty of Graduate Studies on the specified examination day.

6. In case your qualification does not match to the admission criteria, candidates must prior attach A Requesting Form for Examination" approved by the program director. The form must be submitted before making the application. Kindly download here:
http://www.grad.mahidol.ac.th/grad/admission/form_th.php

Exemptions from the above conditions may be granted by the Doctoral Programme Committee and the Dean of the Faculty of Graduate Studies.

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

<u>First Round</u> January 17, 2015		<u>Second Round</u> May 16, 2015	
Subjects for examination	Time	Subjects for examination	Time
1. English	8.30 - 11.30 a.m.	1. English	8.30 - 11.30 a.m.
2. General Knowledge	11.30 - 12.30 p.m.	2. General Knowledge	11.30 - 12.30 p.m.
Examination Place Mahidol University , Salaya , Nakhonpathom more details : www.grad.mahidol.ac.th or Announcement at Faculty of Graduate Studies branches.			

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 2-5)	3(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 0-6)	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.

Details of Scholarships

1. Scholarship of the 60th Year of the Supreme Reign of His Majesty King Bhumibol Adulyadej.
2. Royal Golden Jubilee - PH.D. Program

Additional information for applicants

1. The course will start in Semester 2, Academic Year 2013 on 4 November 2013.
(For more information please contact 02-345-3747)
2. Oral presentation for interested research proposal
3. 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

Prepare the following required documents to submit via online admission system or post :

- Research topic, Objective, research plan, Expected outcome, approximately 4 pages.
- Two (2) recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification 2 copies
(for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation 2 copies
(for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion) 2 copies
- A grade report with course names and grades received from the first to the current 2 copies
semester prior to graduation
- A copy of identification card 2 copies
- A copy of house registration certification 2 copies
- A copy of Certificate of English score: TOEFL/IELTS/MU-Test (if any). See detail here: 2 copies
http://www.grad.mahidol.ac.th/grad/academicinfo/engstandard2553_th.php

Those who early submit a valid English score prior to the examination will be exempt from English test on the examination date.

- A copy of proof of payment.

Submitting documents via online admission system.

- All documents must be in pdf format (maximum size 2 MB)
- Recent photograph must be in jpeg format only (maximum size 2 MB)

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. **Assoc. Prof. Dr. Primchanien Moongkarndi** (E-mail : Primchanien.moon@mahidol.ac.th)
Racharat Building, Floor 2, Department of Microbiology, Faculty of Pharmacy,
Tel: 0 2644 8692 Fax: 0 2644 8692

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**