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**Master of Science in Pharmacy Programme in Pharmacology and Biomolecular Science
(International Programme)**

หลักสูตร เภสัชศาสตรมหาบัณฑิต สาขาวิชา เภสัชวิทยาและวิทยาศาสตร์ชีวโมเลกุล(หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Pharmacy

คณะเภสัชศาสตร์

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

The program offers 2 concentrations:

1. Pharmacology
2. Biomolecular Science

Admission Requirements

candidates must :

1. hold a Bachelor's degree in Pharmacy and meet the requirements set by the Faculty of Graduate Studies;
2. have a minimum grade point average of 2.50 ;
3. Good command in English (reading, writing and speaking)
4. 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 or
 - MU GRAD TEST (COMPUTER BASED) - at least 36

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
5. For Clinical Pharmacy course, candidate must obtain Pharmacy Council of Thailand or other Pharmacy License that the Programme Committee considers as equivalent;
 6. 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. Pharmacology and Basic Biomolecular Sciences	9.00 - 11.00 a.m.
Examination Place Mahidol University , Salaya , Nakhonpathom more details : www.grad.mahidol.ac.th	

Curriculum Structure

	Credit
Core Courses	7
Required Courses	12
Elective Courses	6
Thesis	12

	Credit
Core Courses	
GRID 603 Biostatistics	3(3-0-6)
PYPM 685 Seminar in Pharmacology and Biomolecular Science I	1(1-0-2)
PYPM 686 Seminar in Pharmacology and Biomolecular Science II	1(1-0-2)
PYID 685 Research Methodology in Pharmacy I	2(2-0-4)
Required Courses	
SCID 500 Cell and Molecular Biology	3(3-0-6)
PYID 696 Molecular Pharmacology and Biomolecular Science	3(3-0-6)

And take at least 6 credits of Required Courses in student's major field

Major in Biomolecular Science

PYBC 662 Drug Metabolism and Detoxification	3(3-0-6)
PYBC 665 Biomolecular Sciences in Pharmacy	3(3-0-6)

Major in Pharmacology

PYPM 663 Principle of Drug Therapy	3(3-0-6)
PYPM 687 Advanced Pharmacology	3(3-0-6)

Elective Courses

PYBC 667 Current Topics in Biochemistry	2(2-0-4)
PYBC 668 Instrumental Research Techniques	3(2-3-5)
PYBC 669 Biopharmaceutical 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)
PYPM 664 Essentials in Toxicology	3(2-3-5)
PYPM 666 Drug Screening Techniques I	3(2-3-5)
PYPM 676 Receptor Pharmacology	3(3-0-6)
PYPM 678 Adverse Drug Reaction	3(3-0-6)
PYPM 700 Biologics and Biosimilars	3(3-0-6)

Thesis

PYID 698 Thesis	12(0-36-0)
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*** These may change in cases where there are suggestions for the improvement of the curriculum**

Areas of study that a student may select for concentration: (New)

1. Biomolecular Science

- (1) Structural and Function Studies of Bioactive Protein and Peptides
- (2) Application of Engineering Technology in Biopharmaceutical Sciences
- (3) Stem Cell Biology
- (4) Cancer Cell Biology

2. Pharmacology

- (1) Receptor Pharmacology
- (2) Cardiovascular Pharmacology
- (3) Neuropsychopharmacology
- (4) Pain Management and Pain Signaling Pathway
- (5) Receptor Endocytosis and Signaling Pathway
- (6) Role of COX in Female Reproductive System
- (7) Female Reproductive Pharmacology
- (8) Gastrointestinal Pharmacology
- (9) Pharmacological Effects of Herbal Plants
- (10) Drug-drug Interaction
- (11) Evidence-based Pharmacotherapy
- (12) Biochemical Pharmacology

- (13) Hepatotoxicity of Drugs
- (14) Antioxidant Activities in Natural Products
- (15) Binding of Phytoestrogen to Estrogen Receptor

Details of Scholarships

1. Scholarship of the 60th Year of the Supreme Reign of His Majesty King Bhumibol Adulyadej.
2. RGJ.

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 a medical license
- A copy of a work experience certifying letter
- A copy of Certificate of English proficiency : IELTS / TOEFL INTERNET BASED / TOEFL ITP / MU GRAD TEST (COMPUTER BASED)
- A copy of proof of payment.

Job option after graduation

1. Researcher , academic staff of government and private
2. Pharmacists working in hospitals, drugstores,
3. Pharmacist in drug industry , food and nutrition industry Cosmetic industry and other related industry

**Further information may be obtained from the Director of Graduate Studies,
Pharmacology and Biomolecular Science**

1. **Assoc. Prof. Dr. Srichan Phornchirasilp (E-mail : srichan.pho@mahidol.ac.th)**

Room 614, Rajaratana Building, Floor 6,

Department of Pharmacology, Faculty of Pharmacy.

Tel: 0 2644 8677-91 Ext. 5630 Fax: 0 2644 8700

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**