## **Admission Number**

2 6 0 1 M G 0 0

Master of Science in Pharmacy Programme in Pharmaceutics (International Programme)

หลักสูตร เภสัชศาสตรมหาบัณฑิต

สาขาวิชา เภสัชการ (หลักสูตรนานาชาติ)(ภาคปกติ)

**Faculty of Pharmacy** 

คณะเภสัชศาสตร์

Expected number of students to be accepted year round: 15 Students

หลักสูตรเปิดสอน 2 แขนงวิชา คือ

- Pharmaceutical Technology (แขนงเภสัชกรรมเทคโนโลยี)
- Industrial Pharmacy (แขนงเภสัชอุตสาหกรรม)

(ให้ผู้สมัครเลือกแขนงวิชาที่สนใจสมัคร โดยระบุลงในใบสมัคร)

## **Admission Requirements**

#### candidates must:

- Hold a Bachelor's degree in Pharmacy;
- 2. Have a minimum grade point average of 2.50;
- 3. Meet the requirements set by the Faculty of Graduate Studies;
- 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. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

# Written Examination (For Pharmaceutical Technology)

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

Subjects for examination	Time (Morning session)
Pharmaceutical Technology(60%)     Industrial Pharmacy (40%)	9.00 - 12.00 a.m.
Evamination Place	

## **Examination Place**

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

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

Subjects for examination	Time (Morning session)	
Industrial Pharmacy (60%)     Pharmaceutical Technology (40%)	9.00 - 12.00 a.m.	
Examination Place Mahidol University , Salaya , Nakhonpathom more details : www.grad.mahidol.ac.th		

## **Curriculum Structure**

	Credit
Required Courses	17
Elective Courses	8
Thesis	12

		Credit		
Required Courses				
GRID 603	Biostatistics	3(3-0-6)		
PYID 685	Research Methodology in Pharmacy I	2(2-0-4)		
PYMP 641	Instrumental Research Techniques in Pharmaceutics	1(0-3-1)		
PYMP 642	Advanced Industrial Pharmacy I	3(2-3-5)		
PYPT 601	Seminar in Pharmaceutics I	1(1-0-2)		
PYPT 602	Seminar in Pharmaceutics II	1(1-0-2)		

PYPY	601	Advanced Biopharmaceutics	3(3-0-6)		
PYPY	660	Advanced Pharmaceutics I	3(3-0-6)		
Elective Courses					
PYPY	619	Advanced Pharmacokinetics	3(3-0-6)		
PYPY	661	Advanced Pharmaceutics II	3(3-0-6)		
PYPY	662	Cosmeceutical Sciences	3(2-3-5)		
PYPY	663	Pharmaceutical Product Development I	3(2-3-5)		
PYPT	603	Special Problems in Pharmaceutics	2(0-6-2)		
PYMP	640	Industrial Administration	2(2-0-4)		
PYMP	643	Advanced Industrial Pharmacy II	3(2-3-5)		
PYMP	644	Unit Operations in Pharmacy	2(2-0-4)		
PYMP	645	Manufacturing Process Analytical Technology	2(2-0-4)		
PYMP	646	Pharmaceutical Product Development II	3(2-3-5)		
PYMP	647	Manufacture of Natural Products	2(2-0-4)		
Thesis					
PYID	698	Thesis	12(0-36-0)		

<sup>\*</sup> 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:

## 1. Pharmaceutical Technology

- Development of Controlled Release Delivery Systems
- Nanotechnology in Drug Delivery: Nanoparticles, Liposomes, Microemulsion, Nanoemulsion
- Drug Stability and Chemical Kinetics
- Transdermal Drug Delivery
- Efficacy Evaluation of Topical Products
- Development of Pharmaceuticals and Cosmetic Products and Natural Products
- Novel Drug Delivery Systems: Bioavailability and Efficacy Evaluations
- Pharmacokinetics and Biopharmaceutics

## 2. Industrial Pharmacy

- Physicochemical Characterization of Pharmaceutical Solids
- Development of Pharmaceutical Excipients
- Pharmaceutical Product Development : Solid and Sterile Dosage Forms
- Sustained and Controlled Release Dosage Forms
- Novel and Targeted Drug Delivery Systems
- Pharmaceutical Quality Assurance
- Pharmaceutical Engineering
- Pharmaceutical Manufacturing Science and Technology
- Dissolution, Bioavailability and Bioequivalence Studies of Pharmaceutical Products

## Additional advantages of the programme

Readiness of equipments and research facilities, scholarships and cooperation with leading pharmaceutical manufacturers and international academic institutions. An excellent research in pharmaceutical formulations, drug delivery systems, pharmaceutical technology and industrial pharmacy.

### **Details of Scholarships**

- 1. Research and Researcher for Industry (RRi) Scholarship
- 2. Thailand Graduate Institute of Science and Technology (TGIST) Scholarship
- 3. Research Assistantship
- 4. MUPY Postgraduate Scholarship
- Scholarship of the 60th Year of the Supreme Reign of His Majesty King Bhumibol Adulyadej.

## Additional information for applicants

Please specify the field of study in the application form.

- 1. Pharmaceutical Technology.
- 2. Industrial Pharmacy.

## **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 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. R & D pharmacists / researchers
- 2. Manufacturing & Quality assurance pharmacists
- 3. University lecturer

Further information may be obtained from the Director of Graduate Studies, Pharmaceutics - Pharmaceutical Technology:

1. Dr. Anchalee Jintapattanakit (E-mail: anchalee.jin@mahidol.ac.th)

Rajaratana Building, Floor 3, Department of Pharmacy, Faculty of Pharmacy.

Tel: 0 2644 8677 - 91 Ext. 5744 Fax: 0 2644 8694

## Pharmaceutics - Industrial Pharmacy:

2. Assoc. Prof. Dr. Satit Puttipipatkhachorn (E-mail: satit.put@mahidol.ac.th)

Rajaratana Building, Floor 2, Department of Manufacturing Pharmacy, Faculty of Pharmacy.

Tel: 0 2644 8677 - 91 Ext. 1201, 5701 Fax: 0 2644 8702

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