#### **Admission Number**

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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: 10 Students หลักสูตรเปิดสอน 2 แขนงวิชา คือ

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

(ให้ผู้สมัครเลือกแขนงวิชาที่สนใจสมัคร โดยระบุลงในใบสมัคร)

### **Admission Requirements**

#### candidates must :

- 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;
- have a TOEFL score of at least 480, TOEFL computer-based score of 157, TOEFL
   Internet-based score of 54, or IELTS score of 4.5 or pass the English Proficiency Examination arranged by the Faculty of Graduate Studies.
  - 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.
- 4. 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

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.)

First Round January 17, 201	5	Second Round 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.	
Pharmaceutical Technology & Manufacturing Pharmacy	1.30 - 4.30 p.m.	Pharmaceutical Technology & Manufacturing Pharmacy	1.30 - 4.30 p.m.	

#### **Examination Place**

Mahidol University, Salaya, Nakhonpathom more details: www.grad.mahidol.ac.th or Announcement at Faculty of Graduate Studies branches.

#### Written Examination (For Industrial Pharmacy)

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

First Round January 17, 201	5	Second Round  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.	
General Knowledge     Manufacturing Pharmacy & Pharmaceutical Technology	11.30 - 12.30 p.m. 1.30 - 4.30 p.m.	General Knowledge     Manufacturing Pharmacy & Pharmaceutical Technology	11.30 - 12.30 p.m. 1.30 - 4.30 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
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)	
* 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 Properties of Pharmaceutical Solids
- Formulation and Manufacture of Pharmaceutical Dosage Forms
- Pharmaceutical Processing and Control
- Controlled Release and Novel Drug Delivery Systems
- Dissolution and Bioavailability of Pharmaceutical Dosage Forms

#### 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. Scholarship of the 60<sup>th</sup> Year of the Supreme Reign of His Majesty King Bhumibol Adulyadej.
- 2. MUPY Postgraduate Scholarship.
- 3. Research assistantship.

## Additional information for applicants

- 1. Please specify the field of study in the application form
  - 1.1. Pharmaceutical Technology.
  - 1.2. Industrial Pharmacy.

### **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:

- 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 a medical license 2 copies

2 copies

- A copy of Certificate of English score: TOEFL/IELTS/MU-Test (if any). See detail here: 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 <u>pdf format</u> (maximum size 2 MB)
- Recent photograph must be in <u>ipeg format</u> only (maximum size 2 MB)

### 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, Floor3, 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