



# Faculty of Pharmacy Mahidol University

Wisdom of the Land

## Mahidol University

Mahidol University originates from Thailand's first hospital, Siriraj Hospital, founded in 1888, and among the hospital's medical schools is the oldest institution of higher learning in Thailand, granting its first medical degree in 1893. Later becoming the University of Medical Sciences in 1942, the University was renamed with great honor in 1969 by H.M. King Bhumibol Adulyadej after his own father, H.R.H. Prince Mahidol of Songkla, who is widely regarded as the "Father of Modern Medicine and Public Health in Thailand".

Since then, Mahidol University has diversified from its original strengths in medicine and science, so it now also excels in social sciences, arts and humanities. With its many prestigious honors and achievements, Mahidol University has become an internationally acclaimed institution, recognized for its academic excellence.

## Faculty of Pharmacy, Mahidol University

The Faculty of Pharmacy was established in 1968 and is now recognized as one of the most prestigious schools of pharmacy in Thailand and Southeast Asia. Our graduate programs are diverse and cover most aspects of pharmaceutical sciences and practice. Our areas of research excellence cover pharmaceutical chemistry, biopharmaceutical sciences, pharmaceuticals, phytochemical & phytopharmaceutical sciences and pharmacy practice. The Faculty provides modern teaching and research facilities, including a central library, 7 laboratories for teaching, 3 central laboratories for research, and a well-equipped central computer center, a Drug Information Center, a Medicinal Plant Information Center, and Siri Ruckhachati Nature Park (Salaya Campus). Students can also receive hands-on professional experience at a Pharmaceutical Pilot Plant and Faculty Drug Store located inside the main facilities.

The Faculty is expanding its graduate programs to produce qualified pharmacists and pharmaceutical researchers with up-to-date knowledge and skills to work ethically in various pharmaceutical areas. These graduate programs and research activities are strengthened by collaboration with many international academic institutions and agencies worldwide. The shared expertise enables the Faculty to continue its role as one of the leading educational research institutions in Southeast Asia.

## Quality Education

Our commitment in providing quality pharmacy education has always been the core value and mission of our faculty since the beginning. The following is a list of our degree programs.

### Doctor of Pharmacy (Pharm.D.) Program (Thai Program)

Starting in 2009, the Faculty offers a 6-year pharmacy curriculum leading to a Doctor of Pharmacy (Pharm.D.) degree. The curriculum not only places a strong emphasis on the basic sciences and pharmaceutical sciences related to pharmacy practice but also on professional experience in order to facilitate the development of professional skills needed in the practice of the pharmacy profession.

### Graduate Programs (International Program)

Since its first Master program in 1975, our graduate study programs have grown considerably and have now become known as the best graduate programs among the faculties of pharmacy in Thailand. Currently, the Faculty offers all international graduate programs in various fields ranging from pharmacy practice, and pharmaceutical sciences to related biomedical sciences. Students are provided with the opportunity to gain knowledge and skills in almost every stage of the entire drug development process including drug discovery, drug formulation & delivery, dosage optimization, drug utilization and evaluation. Attesting to the high quality of our programs, in recent years, an increasing number of international students have enrolled in graduate programs offered by our Faculty.

### Master Degree Programs

1. Master of Science in Pharmacy Program in Clinical Pharmacy
2. Master of Science in Pharmacy Program in Pharmaceutics
3. Master of Science in Pharmacy Program in Pharmacology and Biomolecular Science
4. Master of Science in Pharmacy Program in Pharmaceutical Chemistry and Pharmaceutical Phytochemistry
5. Master of Science Program in Biopharmaceutical Sciences: with four focus areas
  - 5.1 Biochemistry
  - 5.2 Microbiology
  - 5.3 Pharmacology
  - 5.4 Physiology
6. Master of Science Program in Nutraceuticals and Functional Foods
7. Master of Science Program in Pharmaceutical Chemistry and Phytochemistry
8. Master of Science Program in Phytopharmaceutical Sciences
9. Master of Science Program in Social, Economic and Administrative Pharmacy



### Doctoral Degree Programs

1. Doctor of Philosophy Program in Biopharmaceutical Sciences: with four focus areas
  - 1.1 Biochemistry
  - 1.2 Microbiology
  - 1.3 Pharmacology
  - 1.4 Physiology
2. Doctor of Philosophy Program in Clinical Pharmacy
3. Doctor of Philosophy Program in Pharmaceutics
4. Doctor of Philosophy Program in Pharmaceutical Chemistry and Phytochemistry
5. Doctor of Philosophy Program in Phytopharmaceutical Sciences
6. Doctor of Philosophy Program in Social, Economic and Administrative Pharmacy



## Area of Research Excellence

Major areas of research excellence at the Faculty of Pharmacy are as follows:

### 1. Biopharmaceutical Sciences

Researches in biopharmaceutical sciences require an interdisciplinary approach, which integrated knowledge in biochemistry, microbiology, pharmacology and physiology. On-going research activities involve with bioassays to develop anti-microbial drugs, anti-cancer drugs, anti-inflammatory drugs and anti-aging drugs. Molecular mechanisms to understand those infectious diseases and non-communicable diseases are studied. In addition, biotechnology based products such as vaccines, enzymes, proteins and microbial products are also area of interest.

### 2. Clinical Pharmacy

Clinical pharmacy researches highlight the innovative development of pharmaceutical care, and the evaluation of drug usage in humans for the purpose of treatment, palliation and/or prevention of diseases/illnesses that are health problems at both national and international levels.

### 3. Nutraceuticals and Functional Foods

Researches in nutraceuticals and functional foods cover product developments, analyses of bioactive compounds, biological, and pharmacological activities of bioactive compounds, epidemiological, and clinical studies of nutraceuticals and functional foods. Other area of researches include influence of activities in marketing, sales, and advertising on nutraceuticals and functional foods, optimization of regulatory affairs concerning nutraceuticals and functional foods, etc.

### 4. Pharmaceutical Chemistry and Phytochemistry

Research interests in pharmaceutical chemistry include design and synthesis of medicinal compounds, drug analysis, drug stability, and drug metabolism. Structure-activity relationships and mode of action of novel compounds with pharmaceutical potential (e.g. as antiviral, antimicrobial anticancer, and CNS drugs) are also investigated. On-going research also includes the use of molecular modeling and computer-aided drug design in the rational design of new therapeutical agents and discovery of lead compounds from the medicinal plants. Researches in phytochemistry focuses on extraction, isolation and identification of the bioactive compounds from natural sources, especially from the medicinal plants and the in vitro plant cell culture. The biosynthesis and the development of herbal product are included. Researches also cover the quality assessment and the bioactivities of modern drugs, plant preparations and natural substances using advanced technologies.

### 5. Pharmaceutics

Researches in pharmaceutics focus on the sciences and technologies used to develop and understand the pharmaceutical dosage forms, which aim to improve quality, efficacy and safety of medicines. Area of researches cover formulation science, advanced drug delivery systems, biopharmaceutical products, pharmaceutical materials characterization and processing, manufacturing science and technology, pharmaceutical engineering, biopharmaceutics and pharmacokinetics, and pharmaceutical quality assurance.

### 6. Pharmacology and Biomolecular Science

The research activities in Pharmacology and Biomolecular Science are structural and functional studies of bioactive protein and peptides, application of engineering technology in biopharmaceutical sciences, stem cell biology, cancer cell biology, receptor pharmacology, cardiovascular pharmacology, neuropsychopharmacology, pain management and pain signaling pathway, receptor endocytosis and signaling pathway, role of COX in female reproductive system, female reproductive pharmacology, gastrointestinal pharmacology, pharmacological effects of herbal plants, drug-drug interaction, evidence-based pharmacotherapy, biochemical pharmacology, hepatotoxicity of drugs, antioxidant activities in natural products, binding of phytoestrogen to estrogen receptor, microbial genetics and biotechnology targeted therapy and immunomodulation, development of immunological diagnostic assays for food and health safety, antimicrobial resistant mechanisms, development of novel natural and synthetic antimicrobial compounds using antisense technology, molecular modeling of biomolecule in drug discovery, in silico simulations of biopolymer as drug delivery system and molecular virology.

### 7. Phytopharmaceutical Sciences

The multidisciplinary researches in phytopharmaceutical sciences deal with developments of herbal products from medicinal plants. Biological activity testing, clinical studies, the standardization of herbal products and the utilization of the sophisticated instruments are also covered.

## 8. Social, Economic and Administrative Pharmacy

Social, economic and administrative pharmacy program focuses on the study of drug and health system management covering the application of pharmacoeconomics, pharmacoepidemiology, pharmaceutical anthropology, social and behavioral sciences, pharmaceutical logistics, organization management and pharmacy human resource development. These are applied to all levels of public sectors from practical level in hospitals to central health management at the ministry of health and health insurance organizations. Experiences sharing among international students are also pivotal in the learning process. The programs are course-work with thesis for master degree; and course-work with thesis or only thesis for Ph.D. Applicants are anyone with health science background.

## International Collaboration

One of the Faculty of Pharmacy's strengths is our strong network of international collaboration in research and education. Through this collaboration, students and academic staff are provided with excellent opportunities to broaden their knowledge and expertise in the area of their interests. Currently, the Faculty maintains academic collaboration with a number of renowned universities in many countries across 3 continents with the aim to broaden our vision and strengthen our education and research in both undergraduate and graduate levels. Important activities in this aspect include student/faculty exchange programs, research collaborations and dual graduate study programs (sandwich program). For a complete list of these partners, please visit our official website at <http://www.pharmacy.mahidol.ac.th>

## First-class Facilities

Currently, the Faculty consists of 2 buildings, with the Debaratana Building and Rajaratana Building being the two main buildings. The Debaratana Building, a 7-floor building, houses a 350-seat auditorium, two 150-seat lecture rooms, several small lecture rooms, 7 large laboratories, simulation laboratory for clinical practice, the Faculty Drug Store, and part of the central research laboratory and offices for administration and other supporting units. The Rajaratana Building, an 8-floor building, houses a cafeteria, a library, the Medicinal Plant Information Center, the Drug Information Center, the Center of Analysis for Product Quality, a central computer center, and part of the central research laboratory. In addition, there are two 150-seat lecture rooms, 20 small and medium-size lecture rooms, departmental offices, graduate students offices and laboratories for graduate and undergraduate studies in the Rajaratana Building.

In terms of other student resources, graduate students have access to scientific instruments through the Central Laboratory and departmental laboratories, according to their needs and interests. Furthermore, the faculty's library and our e-journal catalog provide important resources to students at every level. With a network of libraries under the Mahidol University system, retrieving information from journals, databases or other types of scientific media is a convenience that our graduate students can enjoy. With state-of-the-art IT infrastructure, high-speed access to the internet is conveniently available in every teaching room on every floor and in most areas of the Faculty's buildings.



## Supporting Facilities/Units

With state-of-the-art learning facilities, graduate students at the Faculty enjoy numerous supporting facilities as follows:

- **Siriruckhachati Nature Park – An Award Winning Project for Plant Conservation**

With an area of 15-acre peaceful garden, the garden possess over 800 species of medicinal plants, with some rare species, beautifully arranged with detailed information posted for educational and research purposes.

- **Medicinal Plant Information Center (MPIC)**

The MPIC has been gathering information on medicinal plants from various sources since 1979. Today, it has become a state-of-the-art medicinal plant center for the Southeast Asian region.

- **Drug Information Center (DIC)**

Equipped with a generous collection of drug databases, DIC has been serving the public and medical community alike since 1983, to ensure the dissemination and access to accurate and unbiased information related to drugs and their usage.

- **Center of Analysis for Product Quality (CAPO)**

The Center of Analysis for Product Quality (MUPY-CAPO) aims to provide scientifically accurate test results for drug quality assessment which meet international standards. It has provided services in drug quality assessment well as has provided services in drug quality assessment to both the government and private sectors. Efforts are made to introduce new quality assurance systems, such as ISO/IEC 17025: 2005, into the operation so as to upgrade the services to satisfy its clients.

- **Faculty Pilot Plant for Drug Production**

Our Faculty is the only faculty of pharmacy in the nation that is equipped with a Good Manufacturing Process (GMP) certified pilot pharmaceutical plant. The plant has played an important role in teaching and research in the area of pharmaceuticals for more than 20 years.

- **Faculty Drugstore**

Established in 1979, the drugstore not only provides services to the community, but it also serves as a practice site for both undergraduate and graduate students in the field of pharmacy practice.



## Award and Achievements

The strength of our graduate program is clearly shown by the numerous research publications/presentations in many respectable scientific journals and conferences. The Commission on Higher Education, Ministry of Education, has ranked the Faculty of Pharmacy at Mahidol University as on top in research among all faculties of pharmacy in Thailand since 2005.

In addition to overall Faculty award, several faculty members have received awards both at the international and nation level. A selected list of distinguished award is shown below.

- 2015: Outstanding Poster Presentation Award, Thailand (The 2<sup>nd</sup> International Conference on Advanced Pharmaceutical Research: Strategies and Innovation in Pharmaceutical Research) [Mr. Rawinsiwat Dechaanantassub, M.Sc. student (Pharmaceutical Chemistry and Pharmaceutical Phytochemistry)]
- 2014: Gold Metal Prize and Honorable Mention Award, Switzerland [Dr. Montri Yasawong, Department of Biochemistry]
- 2014: The First Prize Oral Presentation of Science and Technology, (The 2<sup>nd</sup> Nong Khai Campus International Conference 2014 Thailand) [Mr. Hendri Wasito, M.Sc. Student (Pharmaceutical Chemistry and Pharmaceutical Phytochemistry)]
- 2013: Best Poster Presentation Awards in “Asian Federal Pharmaceutical Sciences (AFPS) 2013”, Korea [Mr. Saruth Nithitanakool & Ms. Nittaya Tresilwised, Ph.D. Students]
- 2012: Best Presentation Award (TJIA 2012), Japan; High Quality Research Award, (5th Thailand-Japan International Academic Conference (TJIA) 2012, Japan) [Ms. Chompoonuch Sawaengsak, Ph.D. Student]
- 2010: Nagai Award Thailand 2010, Japan [Assoc. Prof. Dr. Pimolpan Pithayanukul, Department of Pharmacy]
- 2009: 2009 International Alumnus of the Year Vice Chancellor’s Commendation, Australia [Assoc. Prof. Wandee Gritsanapan, Department of Pharmacognosy]

Other recent world-class distinctions and achievements of our staff including Scolophyllumbonensis, Stemonahutanguriana, Clitoriachanondii, Barringtoniamaunwongyathiaae, Aristolochiaphetcha-buriensis, Glytopetalumgraclipes Pierre var. nanum; and the registration of United states Patent for “Addrographispaniculata Gel as an Adjunct in the Treatment of Periodontitis” (Patent No.7, 135, 164, B2, 14 November 2006).



## Career Prospects of Pharmacy Graduates from Mahidol University

Our graduates have made significant contributions at every level of the advancement of the nation’s healthcare system in both the public and private sectors. Graduates from our Master and Doctoral programs continue to grow further in a variety of career paths both in the public and private sectors. Job opportunities that are available range from work in pharmaceutical industries, research centers, hospitals, community pharmacies, to healthcare-related organizations. In addition, a number of our graduates have become faculty members of pharmacy schools around the nation and throughout Southeast Asia. This clearly reflects the leading roles of our Faculty in the development and advancement of pharmacy education in Thailand and Southeast Asia.

## Financial Support & Student Services

A number of our faculty members are awarded scholarships or research funding from many sources. One of the most prestigious scholarships is the Royal Golden Jubilee Ph.D. (RGJ-Ph.D.) Program from the Thailand Research Fund. In addition, students are encouraged to apply for national and graduate school fellowships, research grants and awards. Please contact the program director of your interest for information regarding availability and eligibility criteria for scholarship or financial assistance. More information can be obtained through:

1. Faculty of Pharmacy, Mahidol University official website at <http://www.pharmacy.mahidol.ac.th>
2. Dean, Faculty of Pharmacy, Mahidol University

## Office of the Dean

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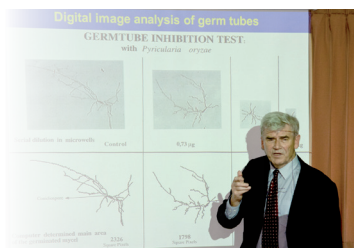
E-mail: [pyedu@mahidol.ac.th](mailto:pyedu@mahidol.ac.th)

## Admission Information

The Academic Year

The Faculty of Pharmacy’s academic year for graduate studies consists of 2 semesters (15 weeks of scheduled classes per semester) plus a summer semester. The usual schedule is as follows:

	Early	Late
Application period	end of September – early January	end of September – mid April
Written Examination	mid January	mid May
Examination results available	mid February	early June
Interview	mid February – early March	mid June
Registration	end of March	end of June
Summer Semester	end of May – mid July	
1 <sup>st</sup> Semester	August – December	
2 <sup>nd</sup> Semester	January – May	



## Application Process

Please submit your application online at <http://www.grad.mahidol.ac.th>

Application for admission to our programs should be submitted to the Faculty of Graduate Studies, Mahidol University as early as possible. Certain programs may require additional materials such as a letter certifying working experience or a copy of a relevant professional license. Please contact the director of each program of interest, or the department listed in our website.

## Tuition and Fees

The regular cost of programs in graduate studies at the Faculty of Pharmacy, Mahidol University is outlined below in Thai baht and US dollars (USD).

Fees	Cost (Baht)	Cost (USD)
<b>Education service</b>		
1 <sup>st</sup> Semester	8,600	269
2 <sup>nd</sup> Semester	4,600	144
Tuition fee	9,000/credit	282/credit
Thesis registration	2,500/credit	78/credit
<b>Research supplies</b>		
Master program	150,000	4,688
Doctoral program	300,000	9,375
<b>Qualifying Examination Fee</b>		
Doctoral program	4,200	132

1 \$US = 32 baht

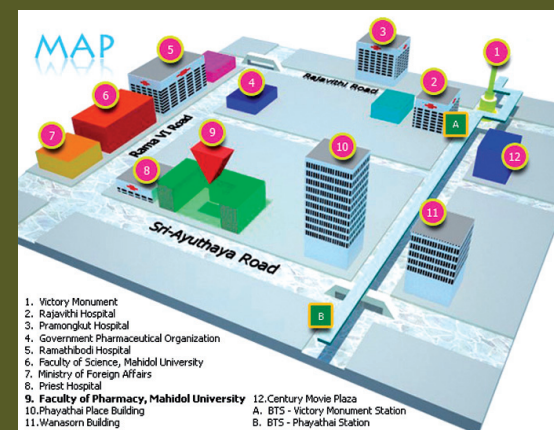
**Note:** This information is provided by the Faculty of Graduate Studies. Costs are subject to change without prior notice and are varied according to the exchange rate.

More information can also be obtained from  
Faculty of Graduate Studies, Mahidol University

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Website: <http://www.grad.mahidol.ac.th>



1. Victory Monument
2. Rajawithi Hospital
3. Praramongkut Hospital
4. Government Pharmaceutical Organization
5. Ramathubodi Hospital
6. Faculty of Science, Mahidol University
7. Ministry of Foreign Affairs
8. Priest Hospital
9. Faculty of Pharmacy, Mahidol University
10. Phayathai Place Building
11. Wanasorn Building
12. Century Movie Plaza
- A. BTS - Victory Monument Station
- B. BTS - Phayathai Station

## Contact us

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# Graduate Programs

**(International Program)**

