

## Course Detail

### Master of Science Program in Pharmaceutical Sciences and Technology

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| <b>Course Title:</b>         | Master of Science Program in<br>Pharmaceutical Sciences and Technology |
| <b>Master Degree:</b>        | Master of Science (M.Sc.)  |
| <b>Academic Institution:</b> | Faculty of Pharmaceutical Sciences,<br>Chulalongkorn University        |
| <b>Duration:</b>             | 2 years (August 2024 to July 2026)                                     |

#### Background and Rational:

Pharmaceutical Sciences and Technology (PST) is a world-class graduate program in Thailand (QS Top University Ranking in Pharmacy & Pharmacology: 150-200). It is administered by the Faculty of Pharmaceutical Sciences, Chulalongkorn University. Due to the University's policy to increase the number of graduate students and foster research achievements, the PST program was established in 2018 as a result of integration of several former departmental graduate programs to pave a way for a multidisciplinary program that incorporates several areas of pharmaceutical research from preclinical to clinical drug discovery and development pipelines under global academic and industrial collaborations.

PST has a strong and interactive group of faculty members and graduate students with research expertise and focus in different fields of Pharmaceutical Sciences – Pharmaceutics, Industrial Pharmacy, Medicinal Chemistry, Pharmaceutical Analysis, Pharmacology, Toxicology, Pharmacognosy, Pharmaceutical Biotechnology, Microbiology, Immunology, and others including Cosmetic Science, Food Chemistry and Medicinal Nutrition. Their multidisciplinary research provides an ideal foundation from which to pursue cutting-edge applications in addition to traditional fields in Pharmaceutical Sciences. The Faculty of Pharmaceutical Sciences has facilities, utilities, equipment, and instruments to support research works, e.g. those of departmental research laboratories, Pharmaceutical Research Instrument Center (PRICE) and Chulalongkorn University Drug and Health Products Innovation & Promotion Center (CU.D.HIP.).

The program provides Master's Degree in both coursework and non-coursework curriculum. Broad spectrum and advance pharmaceutical research are offered in 6 research tracks including (I) Drug Delivery System and Pharmaceutics, (II) Food Chemistry and Medicinal Nutrition, (III) Herbal Medicine and Natural Products (IV) Medicinal Chemistry and Pharmaceutical Analysis (V) Pharmaceutical Biotechnology and Microbiology (VI) Pharmacology and Toxicology.

The program is available for those holding Bachelor's degree in Pharmaceutical Sciences, Sciences or related fields. It is delivered in both Thai and English in a well-balanced international environment. To enhance their knowledge and research skills, our students learn from national and international experts. All graduates produce research outcomes in the form of world-class proceedings, research articles, and intellectual property.

#### Objectives:

To develop Master graduates in the Pharmaceutical Sciences and Technology that have knowledge, understanding, and ability to conduct research in their associated fields, with an ultimate aim to develop pharmaceutical scientists who are research leaders and experts in pharmaceutical and healthcare product industries (e.g. those of medicines, herbal medicines, biologics, dietary supplements, and cosmetics)

## **Course Synopsis and Methodology:**

### **1. Study plan: Master Degree**

#### **Non-Course work (Plan A1)**

Thesis/Dissertation 36

Total 36

#### **Course work (Plan A2)**

Course work 18

Thesis/Dissertation 18

Total 36

#### Non-coursework program (A1)

- Thesis

#### Coursework program (A2)

##### **Course Content:**

##### **Required courses**

Research Methodology in Biopharmaceutical Sciences

Principles in Drug Discovery and Development

Seminar in Pharmaceutical Sciences and Technology

Presentation and discussion on pharmaceutical sciences and technology research

Master Seminar in Pharmaceutical Sciences and Technology

##### **Elective courses**

Principles of Research Ethics

##### **Other elective courses are categorized into 6 tracks**

Drug delivery systems and pharmaceuticals:

Food chemistry and medicinal nutrition:

Herbal medicines and natural products:

Medicinal chemistry and pharmaceutical analysis:

Pharmaceutical biotechnology and microbiology

##### **Graduation Conditions:**

To be eligible to receive a certificate or diploma, students must satisfy the following requirements.

- Students have earned the number of credit hours required by their program and maintain no less than a 3.0 grade point average.
- Students have observed the regulation about the duration of study: Master's program students are allowed up to four academic years to complete their studies.
- The thesis or part of the thesis has been published, accepted for publication or considered as having been published by the Graduate School Board.
- The research article, which is in partial fulfillment of the thesis requirement for a Master's program must have been published or accepted for publication in an academic journal or publication or has been presented at a conference with full proceedings.

##### **Applicant Qualifications:**

###### Plan A1 Thesis-only program

1. Applicants must hold a Bachelor's degree in Pharmaceutical Sciences or Sciences or related fields and approved by the academic program committee.
2. Applicants must have research experiences and must provide two recommendation letters.
3. Other qualifications are according to regulation of Graduate School, Chulalongkorn University.

### Plan A2 Course and thesis program

1. Applicants must hold a Bachelor's degree in Pharmaceutical Sciences or Sciences or related fields or otherwise approved by the academic program committee.
2. Applicants must provide two recommendation letters.
3. Other qualifications are according to regulation of Graduate School, Chulalongkorn University.

### **Document Required:**

- TIPP application form (Download at: <https://tica-thaigov.mfa.go.th/en/page/75500-tipp-application-form?menu=605b13dbb6f1b76ed31778b3>)
- Medical Report (If candidates had submitted other health certificates without the TICA medical report form, their application will not be accepted for consideration)
- Transcript of Bachelor's degree (to show the courses that you have learnt throughout Bachelor's degree) with at least GPA. 2.75
- Certificate of Bachelor's degree
- English test score TOEFL (PBT 400+) or (IBT 32+) or IELTS 4.5+
- Recommendation Letter (At least 3 people)

### **Contact:**

For further information, please contact: Division of Graduate Studies and Lifelong Learning Affairs, Faculty of Pharmaceutical Sciences, Chulalongkorn University  
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### **For more information:**

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\*\*\*The application procedure will complete when TICA has received the hard copy of the application form and other related documents through the Royal Thai Embassy/Permanent Mission of Thailand to the United Nations/Royal Thai Consulate – General accredited to eligible countries/territories.