



GRADUATE PROGRAMS

FACULTY OF PHARMACEUTICAL SCIENCES
KHON KAEN UNIVERSITY



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Message from Dean

Associate Professor. Paiboon Daosodsai, Ph.D.

The Faculty of Pharmaceutical Sciences of Khon Kaen University is one of the leading pharmaceutical institution in Northeast Region of Thailand with international importance in educational and research fields. In 2020, the faculty is in 201st – 250th in QS World University Rankings by Subject 2020 (Pharmacy and Pharmacology). Our missions are to produce qualified graduates with the advanced scientific knowledge and rich academic experience to maintain high quality research and to create new innovations and products.

Quickly developing and progressing changes in the international trends of pharmaceutical profession require the wide diapason of knowledge and integration of practical experience and research knowledge. Our pharmacy school ensure high quality graduate education that incorporates innovative aspects of educational training and research. The varieties of graduate programs in pharmaceutical sciences enable graduates to find the expertise field of their interest providing with an excellent foundation for the academic and professional career.

The Faculty of Pharmaceutical Sciences is internationally opened place. Every year we accept and graduate international students in different fields of pharmaceutical expertise. We ensure high standard research facilities with the equipped according to the laboratory standards work places and provide new laboratory equipment for conduction of research. We also provide a high-quality professional knowledge and supportive community to base a clinical practice. After graduation, many of our international graduate students bring obtained knowledge and skills back to their home countries, standing out with their affirming international perspective and strong sense of self. We highly support this trend and strive for its development in the future.

I would like to invite you to join the graduate program at our faculty and become a part of our family.

Assoc. Prof. Dr. Paiboon Daosodsai

Dean, Faculty of Pharmaceutical Sciences, KKU

Master of Sciences Program in Thai Traditional Pharmacy







Master of Sciences Program in Thai Traditional Pharmacy

Faculty of Pharmaceutical Sciences
General information



- **Program**

Master of Sciences Program in Thai Traditional Pharmacy



- **Degree**

M.Sc. (Thai Traditional Pharmacy)



- **Total credits**

≥ 36 credits (2 year program)



- **Study plan**

- 1) Type A1 Thesis only
- 2) Type A2 Course work and thesis



- **Language (Mode of teaching)**

Thai and English



- **Future career after graduation**

- (1) Instructor
- (2) Research and development personnel
- (3) Hospital pharmacist
- (4) Community pharmacist



● Program structure

	Program structure	
	Type A1	Type A2
1) Compulsory	2*	12
2) Electives	-	12
3) Thesis	36	12
Total credits	36	36

*Compulsory for Type A1 (audit)

Code	Course	Credit
PS387 891	Seminar in Thai Traditional Pharmacy I	1(1-0-3)
PS387 892	Seminar in Thai Traditional Pharmacy II	1(1-0-3)

Compulsory for Type A2

Code	Course	Credit
PS387 811	Advance Thai Traditional Pharmacy	3(2-3-6)
PS387 812	Technical Academic Communication	2(2-0-4)
PS387 813	Research Methodology in Thai Traditional Medicine	2(1-3-4)
PS387 891	Seminar in Thai Traditional Pharmacy I	1(1-0-3)
PS387 892	Seminar in Thai Traditional Pharmacy II	1(1-0-3)
PS387 894	Special Problems in Thai Traditional Pharmacy	3(0-9-6)

Electives for Type A2

Code	Course	Credit
PS357 830	Quality Control of Products	3(2-3-6)
PS357 830	Quality Control of Products	3(2-3-6)
PS357 834	Spectroscopic Method for Structure Elucidation	3(3-0-6)
PS357 833	Instrumental Analysis	4(2-6-8)
PS357 841	Biological Evaluation	2(1-3-4)
PS357 842	Medicinal Plant Tissue Culture	2(1-3-4)
PS387 839	Research from traditional and indigenous resources	3(2-3-6)
PS387 832	Crude Drugs Specification	2(1-3-4)
PS387 834	Pre-clinical and Clinical Study of Herbal Drug	2(2-0-4)
PS387 840	Formulation and Industrial Thai Traditional Pharmacy	3(2-3-6)
PS387 837	Botanical Biotechnology	2(2-0-4)

Thesis

Code	Course	Credit
PS387 898	Thesis	36 credits
PS387 899	Thesis	12 credits

Example of Study Plan

Year 1, Semester 1		Credits	
		Type A1	Type A2
PS387 811	Advance Thai Traditional Pharmacy	-	3(2-3-6)
PS387 813	Research Methodology for Thai Traditional Medicine	-	2(1-3-4)
PS387 891	Seminar in Thai Traditional Pharmacy I	1(1-0-3)	1(1-0-3)
PS387 898	Thesis	9	-
PS387 xxx	Elective Courses	-	6
Total credits		9	9
Accumulate credits		9	9

Year 1, Semester 2		Credits	
		Type A1	Type A2
PS387 894	Special Problems in Thai traditional pharmacy	-	3(0-9-6)
PS387 812	Technical Academic Communication	-	2(2-0-4)
PS387 892	Seminar in Thai Traditional Pharmacy II	1(1-0-3)	1(1-0-3)
PS387 898	Thesis	9	-
PS387 xxx	Elective Courses	-	6
Total credits		10	12
Accumulate credits		18	24

Year 2, Semester 1		Credits	
		Type A1	Type A2
PS387 898	Thesis	9	-
PS387 899	Thesis	-	9
Total credits		9	9
Accumulate credits		27	33

Year 2, Semester 2		Credits	
		Type A1	Type A2
PS387 898	Thesis	9	-
PS387 899	Thesis	-	3
Total credits		9	9
Accumulate credits		36	36

Course description

PS357 830	Quality Control of Health Products	3(2-3-6)
Prerequisite : No		
Quality control of drugs, dietary supplements, cosmetics and herbal products; national and international standards and regulations; quality control of raw materials; stability and contamination of the products		
PS357 833	Instrumental Analysis	4(2-6-8)
Prerequisite : No		
Techniques of high technology instruments quantitative and qualitative analysis; UV-visible spectrometry, spectrofluorometry, atomic absorption and emission spectrometry, electrochemical, chromatographic method and flow injection analysis		
PS357 834	Spectroscopic Method for Structure Elucidation	2(2-0-4)
Prerequisite : No		
Structure elucidation of organic compounds by spectroscopy ultraviolet-visible spectrometry, Infrared-spectroscopy, Mass spectrometry, Nuclear magnetic resonance spectrometry, interpretation of spectra		
PS357 841	Biological Evaluation	2(1-3-4)
Prerequisite : No		
Important of biological evaluation; conventional assessment of biological activity, modern concept and method in biological evaluation, selection criteria for biological evaluation methodologies; method development in biological evaluation, safety and precautions in biological laboratory, treatment of wastes, case studies		
PS357 842	Medicinal Plant Tissue Culture	2(1-3-4)
Prerequisite : No		
Basic principles and technique of plant tissue culture, composition, storage, selection, and preparation of nutrient media, control of the appropriate conditions for tissue culture, application of genetic engineering for improvement of plant tissue culture		

PS387 811	Advance Thai Traditional Medicine	3(2-3-6)
Prerequisite : No		
Medicinal plant constituents and their pharmacological activities; relationship between herbal drug tastes, active ingredients and indications; interaction between crude drug in Thai traditional medicine and between herbal drug and modern drug; factor affecting stability of modern drug		
PS387 812	Technical Academic Communication	2(2-0-4)
Prerequisite : No		
Significance of specific communication in social/academic field, effective presentation of writings, presentation of projects and articles mainly by writing and speech, communication through articles with related procedures, including thesis and other writing followed the curriculum specification, ethics and rights with respect to those projects		
PS387 813	Research Methodology in Thai Traditional Pharmacy	2(1-3-4)
Prerequisite : No		
Process of research in Thai traditional pharmacy; types of research; research question setting; literature review; objective setting; statistics used in the research, research ethics; research proposal and research plan; data processing, data analysis and writing research report		
PS387 832	Crude Drugs Specification	2(1-3-4)
Prerequisite : No		
Herbal drug specification and pharmacognostic profiles, chemical profiles and physico-chemical profiles; monograph of crude drugs in various pharmacopoeias		
PS387 834	Pre-Clinical and Clinical Study of Herbal Drug	2(2-0-4)
Prerequisite : No		
Information necessary for pre-clinical and clinical study of herbal drugs, factors related to quality of herbal products, guideline and proposal writing for pre-clinical and clinical study of herbal drugs		
PS387 837	Botanical Biotechnology	2(2-0-4)
Prerequisite : No		
DNA and basic techniques in molecular biology, plant bioinformatics, plant molecular systematic, plant authentication, plant genetic engineering		

PS387 839	Research from Traditional and Indigenous Resources	3(2-3-6)
Prerequisite : No		
Traditional and indigenous knowledge, method for retrieving traditional, research methodology and research question development, involving traditional and indigenous knowledge		
PS387 840	Formulation and Industrial Thai Traditional Pharmacy	3(2-3-6)
Prerequisite : No		
Dosage forms, principle and methods of drug formulation, preparation techniques, stability evaluation, industrial production and marketing strategy of Thai traditional medicine		
PS387 891	Seminar in Thai Traditional Pharmacy I	1(1-0-3)
Prerequisite : No		
Selection, review and evaluation of literature on Thai traditional pharmacy, including presentation, discussion, report and teamwork skills		
PS387 892	Seminar in Thai Traditional Pharmacy II	1(1-0-3)
Prerequisite : No		
Selection, review and evaluation of literature on Thai traditional pharmacy, including presentation, discussion in English and teamwork skills		
PS387 898	Thesis	36 credits
Prerequisite : Permission from program committee		
Research in Thai traditional Pharmacy emphasis on the self procedure of data analysis and synthesis including literature review, experimental design, planning, experimentation, compiling, interpretation, discussion and suggestion, reporting, presentation and publication ethics.		
PS387 899	Thesis	12 credits
Prerequisite : Permission from program committee		
Research in Thai traditional pharmacy through the skill improvement processes and essential basic research methodologies including literature review, experimental design, planning, experimentation, compiling, interpretation, discussion and suggestion, reporting, presentation and publication ethics.		



