



**FACULTY OF
PHARMACEUTICAL SCIENCES**



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Established in 1994 with the mission to produce an ample number of graduates in Pharmaceutical Sciences for the Kingdom, especially to be located in the lower northern region. Their expertise is in high demand and their contributions and practice are of the highest calibre and integrity. Expected roles are in provision of knowledge and safety in the distribution and usage of medicine among health service providers and the public at large.

In line with its commitment to assisting Thailand's higher education sector to undertake research training, graduate degrees came into being in 2000. The four Master of Pharmacy Programs are as follows:

Firstly, Community Pharmacy which provides the knowledge and skills regarding pharmacy management, the use of technology, and pharmaceutical care.

Secondly, Cosmetic Sciences which focuses on research-based learning emphasising cosmetic chemistry, formulation development, production technology, efficacy and safety evaluation, and customer satisfaction. Skills in experimental research are to be substantially mastered.

Thirdly, Chemistry and Natural Products which stresses four research areas: natural products, medicinal chemistry, pharmaceutical analysis, and pharmaceutical biotechnology.

Finally, Pharmacology wherein research-based training for outstanding scientists in the pharmacological sciences is provided. Fundamental skills acquired include proposal development for innovative studies, literature assessment, various laboratory procedures, management planning, and communication and presentation of scientific information.

Our faculty members are trained in top universities at home and abroad from Asia-Pacific to North America and Europe with strong footholds in all state-of-the-art knowledge as witnessed by a large number of awards won nationally and internationally, such as the National Research Council, Thailand Research Fund, the Ministry of Public Health, and the Nagai Foundation.

Master of Pharmacy Program in Community Pharmacy

Research Focus

- Pharmaceutical Care
- Community Pharmacy Management
- Professional Communication
- Pharmacotherapy
- Law and Ethics in Community Pharmacy
- Technology in Community Pharmacy

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.1	Option 1.2
Coursework	-	24
- Core Courses	-	21
- Electives	-	3
Required Non-credit Courses	4	4
Thesis	36	12
Total	36	36

* Minimum credits required

2. Core Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Pharmacotherapy 1	-	-	151731	3
Pharmacotherapy 2	-	-	151732	4
Pharmaceutical Care and Professional Communication	-	-	151733	3
Community Pharmacy Management 1	-	-	151741	3

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Community Pharmacy Management 2	-	-	151742	3
Technology in Community Pharmacy	-	-	151743	2
Law and Ethics in Community Pharmacy	-	-	151747	2
Current Concept in Community Pharmacy	-	-	151748	1
Total	-	-	8	21

3. Electives

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Nutritional Therapy	-	-	151735	3
Marketing Administration in Community Pharmacy	-	-	151746	3
Introduction to Anti-aging Science for Pharmacy Practice	-	-	151749	3
Cosmetics	-	-	151713	3
Health Behavior	-	-	154741	3
Total	-	-	≥1	≥3

4. Required Non-credit Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Research Methodology in Health Science	158751	3	158751	3
Seminar	165790	1	165790	1
Total	2	4	2	4

5. Thesis Credit Requirements

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Thesis 1, Option 1.1	165791	6	-	-
Thesis 2, Option 1.1	165792	6	-	-
Thesis 3, Option 1.1	165793	12	-	-
Thesis 4, Option 1.1	165794	12	-	-
Thesis 1, Option 1.2	-	-	165795	3
Thesis 2, Option 1.2	-	-	165796	3
Thesis 3, Option 1.2	-	-	165797	6
Total	4	36	3	12

Master of Science Program in Cosmetic Sciences

Research Focus

- Cosmetic Product Formulation
- Cosmetic Product Evaluation
- Cosmetic Manufacturing System
- Herbal Cosmetic Development
- Biotechnology
- Cosmetic Chemistry
- Production Technology
- Efficacy and Toxicology Testing

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.1	Option 1.2
Coursework	-	24
- Core Courses	-	15
- Electives	-	9
Required Non-credit Courses	5	5
Thesis	36	12
Total	36	36

* Minimum credits required

2. Core Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Applied Biostatistics for Pharmaceutical Sciences	-	-	161703	3
Emulsion-Surfactant Technology in Cosmetics	-	-	159714	3

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Cosmetic Product Formulation	-	-	159715	3
Cosmetic Product Evaluation	-	-	159716	3
Instrumental Techniques in Pharmaceutical Science Research I	-	-	162701	3
Total	-	-	5	15

3. Electives

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Animal Tissue Culture for Cosmetic Sciences	-	-	153715	3
Stability and Stabilization of Cosmetic Products	-	-	153716	3
Law, Ethics and Management in Cosmetic Business	-	-	153718	3
Marketing Research and Consumer Preference in Cosmetics	-	-	153719	3
Cosmetic Packaging and Labeling	-	-	153722	3
Safety and Toxicology of Cosmetic Products	-	-	153723	3
Phytocosmetics	-	-	153724	3
Current Concepts in Cosmetic Product Development	-	-	153726	3
Total	-	-	≥3	≥9

4. Required Non-credit Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Research Methodology in Health Science	160704	3	160704	3
Seminar 1	159794	1	159794	1
Seminar 2	159795	1	159795	1
Total	3	5	3	5

5. Thesis Credit Requirements

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Thesis 1, Option 1.1	159790	6	-	-
Thesis 2, Option 1.1	159791	6	-	-
Thesis 3, Option 1.1	159792	12	-	-
Thesis 4, Option 1.1	159793	12	-	-
Thesis 1, Option 1.2	-	-	159798	6
Thesis 2, Option 1.2	-	-	159799	6
Total	4	36	2	12

Master of Science Program in Pharmaceutical Chemistry and Natural Products

Research Focus

- Pharmaceutical Chemistry
- Natural Product
- Pharmacognosy
- Pharmaceutical Science
- Pharmaceutical Analysis
- Biotechnology

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.1	Option 1.2
Coursework	-	24
- Core Courses	-	12
- Electives	-	12
Required Non-credit Courses	5	5
Thesis	36	12
Total	36	36

* Minimum credits required

2. Core Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Applied Biostatistics for Pharmaceutical Sciences	-	-	161703	3
Instrumental Techniques in Pharmaceutical Science Research 1	-	-	162701	3
Structure Elucidation of Organic Compounds	-	-	162703	3
Special Topic in Pharmaceutical Chemistry or Natural Products	-	-	162704	3
Total	-	-	4	12

3. Electives

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Instrumental Techniques in Pharmaceutical Science Research 2	-	-	162402	3
Drug Research and Development	-	-	162705	3
Drug Discovery and Design	-	-	162706	3
Principle of Medicinal Chemistry	-	-	162707	3
Reaction Mechanism of Organic Compounds	-	-	162708	3
Drug Action in Pharmaceutical Chemistry	-	-	162709	3
Advanced Organic Pharmaceutical Chemistry	-	-	162710	3
Pharmaceutical Analysis in Biological Samples	-	-	162711	3
Bioactive Compounds from Natural Origins	-	-	162712	3
Quality Control for Herbal Medicines	-	-	162713	3
Thai Medicinal Plants	-	-	162714	3
Medical Pluralistic	-	-	162715	3
Plant Tissue Culture Technology	-	-	162716	3
Plant Molecular Biology	-	-	162717	3
Pharmaceutical Biotechnology	-	-	162718	3
Total	-	-	≥4	≥12

4. Required Non-credit Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Research Methodology in Health Science	160704	3	160704	3
Seminar 1	162794	1	162794	1
Seminar 2	162705	1	162795	1
Total	3	5	3	5

5. Thesis Credit Requirements

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Thesis 1, Option 1.1	162790	6	-	-
Thesis 2, Option 1.1	162791	6	-	-
Thesis 3, Option 1.1	162792	12	-	-
Thesis 4, Option 1.1	162793	12	-	-
Thesis 1, Option 1.2	-	-	162798	6
Thesis 2, Option 1.2	-	-	162799	6
Total	4	36	2	12

Master of Science Program in Pharmacology

Research Focus

- Molecular Biology
- Pharmacokinetic/Pharmacodynamic
- Natural Product Research
- Health Science Research
- Toxicology

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.1	Option 1.2
Coursework	-	24
- Core Courses	-	15
- Electives	-	9
Required Non-credit Courses	5	5
Thesis	36	12
Total	36	36

* Minimum credits required

2. Core Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Applied Biostatistics for Pharmaceutical Sciences	-	-	161703	3
Advanced Cell and Molecular Biology	-	-	164701	3
Principle of Pharmacology 1	-	-	164702	3
Principle of Pharmacology 2	-	-	164703	3
Laboratory Techniques in Pharmacology	-	-	164704	3
Total	-	-	5	15

3. Electives

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Drug Receptor Pharmacology	-	-	164705	3
Vascular Biology and Pharmacology	-	-	164706	3
Drug Metabolism	-	-	164707	3
Pharmacokinetics Modeling	-	-	164708	3
Advanced Immunopharmacology	-	-	164709	3
Advanced Neuropharmacology	-	-	164710	3
Pharmacogenomics	-	-	164711	3
Toxicology	-	-	164712	3
Principle of Genetics	-	-	164713	3
Signal Transduction	-	-	164714	3
Current Concepts in Pharmacology and Piomolecular Sciences	-	-	164715	3
Special Topic in Pharmacology and Biomolecular Sciences	-	-	164716	3
Total	-	-	≥3	≥9

4. Required Non-credit Courses

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Research Methodology in Health Science	160704	3	160704	3
Seminar 1	164796	1	164796	1
Seminar 2	164797	1	164797	1
Total	3	5	3	5

5. Thesis Credit Requirements

Requirements	Option 1.1		Option 1.2	
	Course No.	Cr.	Course No.	Cr.
Thesis 1, Option 1.1	164790	6	-	-
Thesis 2, Option 1.1	164791	6	-	-
Thesis 3, Option 1.1	164792	12	-	-
Thesis 4, Option 1.1	164793	12	-	-
Thesis 1, Option 1.2	-	-	164798	6
Thesis 2, Option 1.2	-	-	164799	6
Total	4	36	2	12