

PROGRAM STRUCTURE

LEVEL : Graduate
SCHOOL : School of Science
PROGRAM : 605110202 : Master of Science Program in Applied Chemistry Plan A 2
PROGRAM YEAR : 2560

PHILOSOPHY

This programme's emphasis is on creating graduates who possess advanced knowledge and researching skills to serve as leaders in creating chemical innovations and in the application of science, polymer technology and analytical chemistry to improving natural products. The graduates are supposed to be able to use their knowledge morally and ethically, for the benefit of the society.

PURPOSE

1. Advanced knowledge and skills related to chemistry and its application;
2. Skills in conducting high-quality chemistry research, as well as the ability to build on previous studies or innovations and to publish and practically apply their research;
3. Skills in independent entrepreneurship;
4. Ethically and morally grounded leadership in chemistry or applied chemistry
5. English communication ability compliant with accepted standards.

1 Thesis **MINIMUM CREDIT** : 18

Course Code	COURSE	CREDIT
1102792	Thesis	18 (0-54-0)

2 Required Courses **MINIMUM CREDIT** : 9

Course Code	COURSE	CREDIT
1102702	Ethics and Research Methodology	3 (3-0-6)
1102703	Advanced Instrumental Analysis	4 (3-3-7)
1102784	Master Seminar 1 E2: 1102986 Doctoral Seminar 1 1 (0-3-1)	1 (0-3-1)
1102882	Master Seminar 2 E2: 1102987 Doctoral Seminar 2 1 (0-3-1)	1 (0-3-1)

3 Elective Courses MINIMUM CREDIT : 9

Course Code	COURSE	CREDIT
<u>1102721</u>	Drug Discovery Based on Natural Products	3 (3-0-6)
<u>1102722</u>	Bioassay Methods	3 (2-3-5)
<u>1102723</u>	Natural Products in Nutraceuticals, Cosmeceuticals and Agrochemicals	3 (3-0-6)
<u>1102724</u>	Structural Characterization of Organic Compounds	3 (3-0-6)
<u>1102725</u>	Advanced Organic Chemistry	3 (3-0-6)
<u>1102726</u>	Chemistry of Dyes	3 (2-3-5)
<u>1102727</u>	Enzyme Catalysis in Organic Synthesis	3 (2-3-5)
<u>1102728</u>	Structural Design of Polymers	3 (3-0-6)
<u>1102729</u>	Polymer Applications	3 (3-0-6)
<u>1102736</u>	Analysis and Characterization of Polymers	3 (2-3-5)
<u>1102737</u>	Property Improvement in Polymers	3 (3-0-6)
<u>1102738</u>	Electrochemical Analysis	3 (3-0-6)
<u>1102739</u>	Chromatography	3 (2-3-5)
<u>1102740</u>	Advanced Inorganic Chemistry	3 (3-0-6)
<u>1102741</u>	Green Chemistry	3 (3-0-6)
<u>1102742</u>	Advanced Analytical Chemistry	3 (3-0-6)
<u>1102743</u>	Agricultural and Environmental Chemical Analysis	3 (3-0-6)
<u>1102744</u>	Analytical Techniques for Pharmaceutical and Medical Sciences	3 (3-0-6)
<u>1102745</u>	Surface Chemistry	3 (3-0-6)
<u>1102746</u>	Advanced Physical Chemistry	3 (3-0-6)
<u>1102747</u>	Bioinorganic Chemistry	3 (3-0-6)
<u>1102748</u>	Selected Topics in Applied Chemistry	3 (3-0-6)
<u>1102749</u>	Polymers in Controlled Delivery Systems	3 (3-0-6)

REMARKS

P : Prerequisite Course

E1 : One-way Equivalent

E2 : Two-way Equivalent

รายวิชา 1006393 Principles of Translation 3(3-0-6) ในกรณีที่นักศึกษาไม่สามารถใช้ภาษาไทยได้ ให้เรียนรายวิชา 1006382 Directed Studies แทน

รายวิชา 1006397 Comparative Study of English and Thai 3(3-0-6) ในกรณีที่นักศึกษาไม่สามารถใช้ภาษาไทยได้ ให้เรียนรายวิชา 1006381 Selected Reading แทน