Master & Doctor of Philosophy Programs in Industrial Chemistry

Research Fields

Functional Cement Production
Bioceramic Development and Applications
Conductive Polymers for Medical Applications
Functional Textile Development
Metal and Alloy Development
Catalyst and Plasma for Chemical Conversion Process
Functional Inorganic Material Development
Functionalized Porous Materials and Catalyst for Water Remediation
Functional Glass Production
Functional Polymer Composite Fabrication
Bio Fuel Production
Nano Technology from Biomass

For more information,
please visit the following website.
www.inc.science.cmu.ac.th

Master of Science Program in Industrial Chemistry

Type 2 (Plan A Type A 2)

Degree Requirements	Total	a minimum of	38	credits
A. Coursework		a minimum of	23	credits
1. Graduate Courses		a minimum of	23	credits
1.1 Field of specialization		a minimum of	23	credits
1.1.1 Required courses			13	credits
1.1.1.1 Program's required courses			7	credits
209771 Production in Industrial Chemistry and Quality Control			3	credits
209772 Characterization Techniques for Industrial Materials			3	credits
209791 Seminar in Industrial Chemistry 1			1	credit
2.1.1.1 Track's required courses			6	credits
General Industrial Chemistry Track				
209702 Transport Phenomena in Industrial Chemistry			3	credits
209709 Advanced Chemical Reactions and Kinetics			3	credits
Silicate Science and Technology Track				
209712 Modern Technology in Ceramics Manufacturing			3	credits
209713 Ceramic Products and Quality Development			3	credits
Metallurgy Track				
209722 Chemical Analysis in the Metal Industry			3	credits
209723 Transport Phenomena in Metal Processing			3	credits
Polymer Technology Track				
209785 Advanced Physical Properties of Polymers			3	credits
209787 Polymer Processing and Applications			3	credits

Petrochemical and Fuel Track

209703	Advanced Separation Processes	3	credits
209731	Fuel Combustion and Emissions	3	credits

1.1.2 Elective courses a minimum of 10 credits

To be selected from the following courses :

203775	Polymer Characterization and Properties	3	credits
209701	Principles of Chemical Process Control	3	credits
209704	Mixing Technology	3	credits
209705	Safety in Materials Processing	2	credits
209707	ISO Management System Standards	2	credits
209711	Characterization of Ceramics	3	credits
209714	Energy Environment and Safety in Ceramic Processing	3	credits
209715	Ceramic Production and Market Trends	3	credits
209716	Technical Developments in Ceramic Glazes and Colorants	3	credits
209717	Advances in Traditional Ceramic Technology	3	credits
209721	Metallurgy for Industrial Chemists	3	credits
209724	Phase Diagrams of Metals	3	credits
209741	Advanced Petrochemical Manufacture	3	credits
209751	Investigation and Evaluation of Ceramics	3	credits
209752	Ceramic Defects and Remedies	3	credits
209773	Industrial Waste Management and Recycling	2	credits
209779	Selected Topics in Industrial Chemistry 1	2	credits
209781	Plastic Parts Technology	3	credits
209783	Plastic Recycling	3	credits
209789	Selected Topics in Industrial Chemistry 2	3	credits
209792	Seminar in Industrial Chemistry 2	1	credit
210741	Physics of Advanced Ceramics	3	credits

Or any graduate courses in Faculty of Science with approval of the Graduate Program Administrative Committee

1.2 Other courses none

1.2.1 Required courses none

1.2.2 Elective courses none

2. Advanced Undergraduate Courses none

B. Thesis

209799 Master's Thesis 15 credits

C. None-credit Courses

1. Graduate School requirement : a foreign language
2. Program requirement :
   Those who are deficient in basic background must register for none credit courses under the requirement of the Graduate Program Administrative Committee.

D. Academic Activities

At least 1 master's thesis work or a part of master's thesis work must be published or at least accepted to publish in a national journal listed in TCI Tier 1 database or published with a full paper in the proceedings of international conference at which it is renowned in the field with the student as the first author or have patent or petty patent.