

Master & Doctor of Philosophy Programs in Materials Science



Research Fields

Nanoscience NanoTechnology

NanoTechnology for Medical Applications

Nanosensors for Disgonosis and Screening

NanoTechnology for Environmental Concerns

Nanomaterials for Food Packaging

Nanomaterials for Energy Harvesting and Storage

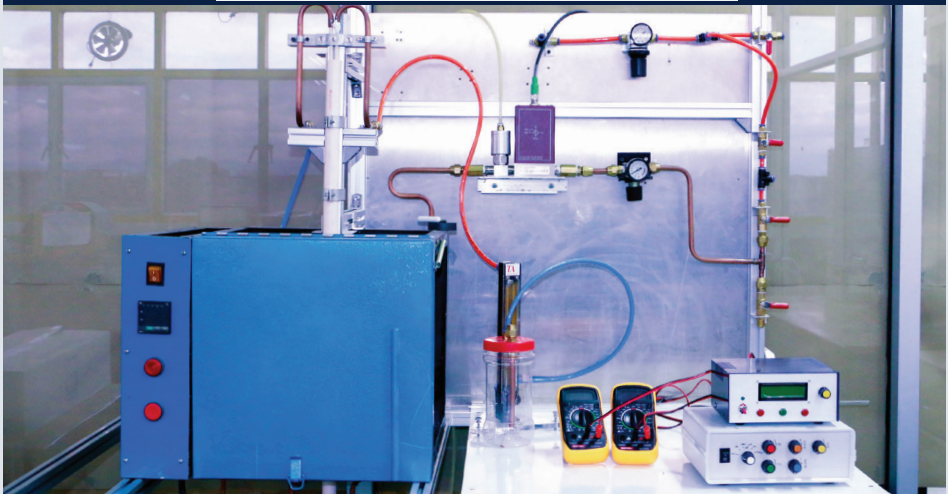
Electronics Materials

Advanced Ceramics

Biodegradable Polymers



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



Master of Science Program in Materials Science

Type 2 (Plan A Type A 2)

Degree Requirements	Total	a minimum of	37	credits
A. Coursework		a minimum of	22	credits
1. Graduate courses		a minimum of	22	credits
1.1 Field of specialization		a minimum of	19	credits
1.1.1 Required courses			16	credits
210702	Characterization of Materials		3	credits
210703	Fabrication Processes of Materials		3	credits
210704	Structures and Properties of Materials		3	credits
210705	Chemistry for Materials Science		3	credits
210707	Group Study in Materials 1		1	credit
210708	Group Study in Materials 2		1	credit
210791	Seminar in Materials Science 1		1	credit
210792	Seminar in Materials Science 2		1	credit
1.1.2 Elective courses		a minimum of	3	credits

A student must select from the following courses or any new graduate Materials Science courses with approval of thesis advisor.

210717	High Strength Materials	3	credits
210723	Ferroelectric Materials	3	credits
210731	Electron Microscopy	3	credits
210732	Electron Microscopy Laboratory	1	credit
210733	Mechanical and Durability Properties of Concrete	3	credit
210734	Materials for Energy	3	credit
210741	Physics of Advanced Ceramics	3	credits
210743	Electroceramics	3	credits
210744	Advanced Cement-Based Materials	3	credits
210745	Structure and Property Relations in Materials	3	credits
210746	Porous Materials	3	credits
210748	Biomedical Materials	3	credits
210751	Advanced Composite Materials	3	credits
210781	Metallurgical Thermodynamics	3	credits
210782	Diffusion in Solids	3	credits
210784	High Temperature Oxidation of Metals and Alloys	3	credits
210785	Advanced Physical Metallurgy	3	credits
210787	Surface Technology for Wear and Corrosion Resistance	3	credits
210789	Selected Topics in Materials Science	3	credits

1.2 Other courses (if any)		a maximum of	3	credits
1.2.1 Required courses	None			
1.2.2 Elective courses (if any)		a maximum of	3	credits

Select other related graduate courses approved by his/her advisor and graduate program administrative committee.

2. Advanced Undergraduate Courses None

B. Thesis

210799 Mastre's Thesis 15 credits

C. Non-credit Courses

1. Graduate School requirement – a foreign language
2. Program requirement

In the case of a student who lacks the basic knowledge required for study in this materials science program, may be asked to enroll in some particular courses approved by his/her advisor and graduate program administrative committee.

D. Academic Activities

The whole or part of a thesis must be published or accepted for publication in a journal in ISI, Scopus or TCI Tier 1 database or presented in an international conference with a proceeding (full paper proceeding under a peer review process by the expert in the field) at least one paper and student must be the first author.