

# Master of Engineering Program in Chemical Engineering



## Research Focus

- Renewable energy
- Biodegradable composite
- Biorefinery platform
- Chemical process design and control
- Catalyst development and process simulation

## Structure of the Program

### Credit Requirements \*

Requirements	Type A1	Type A2
<b>1. Coursework</b>		24
1.1 Core Courses		9
1.2 Electives		15
<b>2. Thesis</b>	36	12
<b>3. Required Non-credit Courses</b>	5	5
<b>Total</b>	36	36

### Core Courses

Requirements	Type A2	
	Course No	Cr
Advanced Chemical Engineering Thermodynamics	312502	3
Advanced Transport Phenomena	312503	3
Advanced Chemical Engineering Kinetics	312504	3
<b>Total</b>		3

### Electives Courses

Requirements	Type A2	
	Course No	Cr
Adsorption Process	312511	3
Advanced Process Control	312512	3
Advanced Heat Transfer	312513	3
Advanced Mass Transfer	312514	3
Membrane Technology	312515	3
Supercritical Fluids Technology	312516	3
Advanced Separation Technology	312517	3
Process Modeling and Simulation for Chemical Engineering	312518	3
Computational Process Control	312519	3
<b>Total</b>		≥15



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## Electives

### ➤ Chemical engineering and Material

Requirements	Option Type A 2	
	Course No	Cr
Polymer Engineering	312531	3
Polymer Rheology	312532	3
Nano Technology	312533	3
Plasma Technology	312534	3

### ➤ energy engineering and Catalytic

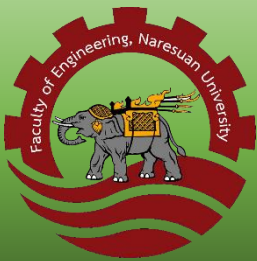
Requirements	Option Type A 2	
	Course No	Cr
Heterogeneous Catalytic Reaction	312541	3
Characterization of Catalyst	312542	3
Advanced Petrochemical Engineering	312543	3
Alternative Energy Technology	312544	3
Advanced Solid Waste Management Engineering	312545	3
Energy and Environmental Management for Sustainability	312546	3

### ➤ Selected Topics in Chemical Process Engineering

Requirements	Option Type A 2	
	Course No	Cr
Selected Topics in Chemical Process Engineering	312583	3
Current Issues in Chemical Engineering	312584	3

## Thesis Credit Requirements

Requirements	Type A 1	
	Course No	Cr
Thesis 1, Type A 1	312591	9
Thesis 2, Type A 1	312592	9
Thesis 3, Type A 1	312593	9
Thesis 4, Type A 1	312594	9
<b>Total</b>		<b>36</b>



# Master of Engineering Program in Electrical Engineering



## *Thesis Credit Requirements*

Requirements	Type A 2	
	Course No	Cr
Thesis 1, Type A 2	312595	3
Thesis 2, Type A 2	312596	3
Thesis 3, Type A 2	312597	6
<b>Total</b>		<b>12</b>

## *Required Non-credit Courses*

Requirements	Type A 2	
	Course No	Cr
<b>Research Methodology in Science and Technology</b>	312505	3
<b>Seminar 1</b>	312581	1
<b>Seminar 2</b>	312582	
<b>Total</b>		<b>4</b>