



# Master of Engineering Program in Electrical Engineering



## Research Focus

- Power Electrical Engineering
- Electronics and Embedded Systems
- Control System and Signal Processing
- Communication Engineering

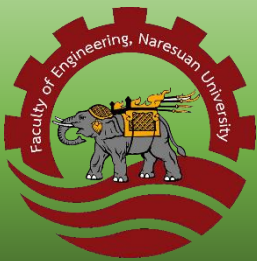
## Structure of the Program

### Credit Requirements \*

Requirements	Type A1	Type A2
<b>1. Coursework</b>		<b>24</b>
1.1 Core Courses		3
1.2 Electives		21
<b>2. Thesis</b>	<b>36</b>	<b>12</b>
<b>3. Required Non-credit Courses</b>	<b>4</b>	<b>4</b>
<b>Total</b>	<b>36</b>	<b>36</b>

### Core Courses

Requirements	Type A2	
	Course No	Cr
Mathematics for Approximation	302502	3
<b>Total</b>		<b>3</b>



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## *Electives Courses*

### ➤ Electrical power engineering

Requirements	Type A2	
	Course No	Cr
Power System Operation and Control	303511	3
Theory of Electrical Machines	303512	3
Energy Conversion Systems	303513	3
Organization and Finance of a Power Utility	303514	3
Optimization and Its Applications in Power Systems	303515	3
Advanced High Voltage Technology	303516	3
Electricity Economics and Planning	303517	3
Power System Dynamics and Stability	303518	3
Power Quality	303519	3
Advanced Energy Technology	303521	3
Electrical Machine Design	303522	3
Photovoltaic Systems Engineering	303523	3
Analysis of DC Power Converter Characteristics	303524	3
Special Topics in Electrical Power Engineering	303528	3
<b>Total</b>		<b>≥21</b>

### ➤ Electronics and Embedded Systems

Requirements	Option Type A 2	
	Course No	Cr
Microprocessor-Based System Design	303531	3
Advanced Electronic Circuit Design	303532	3
Noise Reduction Techniques	303533	3
Electronics for Internet of Things	303534	3
Opto-Electronics	303543	3
Biomedical Electronics	303544	
Special Topics in Electronics and Embedded Systems	303548	3



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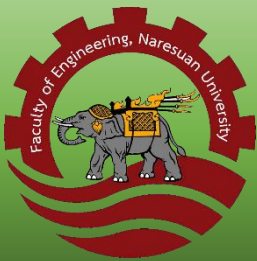


## ➤ Control System and Signal Processing

Requirements	Option Type A 2	
	Course No	Cr
Fundamentals of Control Theory	303551	3
Optimization Theory and Its Applications	303552	3
Signal Processing	303561	3
Image Processing	303562	3
Computer Vision	303563	3
Filter Design	303564	3
Mechatronics and Robotics Systems	303565	3
Wavelets	303566	3
Machine Learning Theory	303567	3
Special Topics in Control System Engineering and Signal Processing	303569	3

## ➤ Communication Engineering

Requirements	Option Type A 2	
	Course No	Cr
Stochastic Signals and Systems	303571	3
Stochastic Signals and Systems	303573	3
Communication System Design	303574	3
Microwave Theory	303575	3
Radio Wave Propagation	303576	3
Cellular Radio and Wireless Communications	303577	3
Advanced Digital System Communications	303578	3
Information Theory	303580	3
Electromagnetic Theory	303581	3
Finite Element Method for Electrical Engineering	303582	3
Coding Theory	303585	3
Antenna Theory	303586	3
Special Topics in Communication Engineering	303589	3



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## *Thesis Credit Requirements*

Requirements	Type A 1	
	Course No	Cr
Thesis 1, Type A 1	303596	9
Thesis 2, Type A 1	303597	9
Thesis 3, Type A 1	303598	9
Thesis 4, Type A 1	303599	9
<b>Total</b>		<b>36</b>

Requirements	Type A 2	
	Course No	Cr
Thesis 1, Type A 2	303593	3
Thesis 2, Type A 2	303594	3
Thesis 3, Type A 2	303595	6
<b>Total</b>		<b>12</b>

## *Required Non-credit Courses*

Requirements	TypeA1, A 2	
	Course No	Cr
<b>Research Methodology in Science and Technology</b>	303592	3
<b>Seminar</b>	303591	1
<b>Total</b>		<b>4</b>