



# Master of Engineering Program in Mechanical Engineering



## *Research Focus*

- Energy
- Mechanics
- Automatic Control
- Thermodynamics and Fluid Mechanics
- Agricultural Engineering
- Biomedical Engineering
- Precision Engineering

## *Structure of the Program*

## *Credit Requirements \**

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

## *Core Courses*

Requirements	Type A2	
	Course No	Cr
Advanced Mathematics for Mechanical Engineering	302502	3
<b>Total</b>		<b>3</b>



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## *Electives Courses*

### ➤ Applied mechanics and Design

Requirements	Type A2	
	Course No	Cr
Statistics for Mechanical Engineering	302503	3
Biomechanics of Human Movement	302512	3
Theory of Elasticity	302513	3
Computational Biomechanics	302514	3
Mechanics of Fatigue and Fracture	302515	3
Theory of Plasticity	302516	3
Decision Theory	302517	3
Engineering Optimization	302519	3
Selected Topics in Mechanical Engineering	302594	3
Special Problem Studies in Mechanical Engineering	302595	3
<b>Total</b>		<b>≥9</b>

### ➤ Energy Engineering

Requirements	Option Type A 2	
	Course No	Cr
Energy Conversion	302544	3
Energy Engineering Economics	302545	3
Energy Conservation and Management	302546	3
Renewable Energy Resources	302547	3
Design of Air-conditioning Heating and Ventilation System	302548	3
Selected Topics in Mechanical Engineering	302594	3
Special Problem Studies in Mechanical Engineering	302595	3

### ➤ Agricultural Engineering

Requirements	Option Type A 2	
	Course No	Cr
Theory of Agricultural Machinery Design	302560	3
Renewable Energy for Agriculture	302561	3
Harvesting Machinery	302562	3
Testing and Evaluation Techniques of Agricultural Machinery	302563	3
Drying and Storage of Agricultural Products	302564	3
Microwave Drying Technology	302565	3
Agricultural Products Processing Technology	302566	3
Selected Topics in Mechanical Engineering	302594	
Special Problem Studies in Mechanical Engineering	302595	



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## ➤ Dynamical System and Automatic Control

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Requirements	Option Type A 2	
	Course No	Cr
Instruments and Measurement	302500	3
Numerical Analysis for Mechanical Engineers	302501	3
Automatic Control Theory	302550	3
Automatic Control Theory	302552	3
Advanced Automotive Control	302554	3
Engineering Dynamic System Design	302555	3
Computer-Controlled System	302557	3
Selected Topics in Mechanical Engineering	302594	3
Special Problem Studies in Mechanical Engineering	302595	3

### 4. Thesis Credit Requirements

Requirements	Type A 2	
	Course No	Cr
Thesis 1, Type A 2	302597	3
Thesis 2, Type A 2	302598	3
Thesis 3, Type A 2	302599	6
<b>Total</b>		<b>12</b>

### Required Non-credit Courses

Requirements	TypeA1, A 2	
	Course No	Cr
Research Methodology in Science and Technology	302501	3
Seminar	302591	1
<b>Total</b>		<b>4</b>