

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

1. Credit Requirements *

Requirements	Option 1.2
Coursework	24
- Core Courses	6
- Electives	18
Required Non-credit Courses	4
Thesis	12
Total	36

* Minimum credits required

2. Core Courses

Requirements	Option 1.2	
	Course No.	Cr.
Advanced Mathematics for Mechanical Engineering	302502	3
Statistics for Mechanical Engineering	302503	3
Total	2	6

3. Electives

Requirements	Option 1.2	
	Course No.	Cr.
Applied Mechanics and Design Group		
Theory of Elasticity	302513	3
Mechanics of Fatigue and Fracture	302515	3
Theory of Plasticity	302516	3
Decision Theory	302517	3
Mechanics of Composite Materials	302518	3
Selected Topics in Mechanical Engineering	302594	3
Special Problem Studies in Mechanical Engineering	302595	3
Thermal Engineering and Mechanics of Fluid Group		
Advanced Fluid Dynamics	302520	3
Advanced Engineering Thermodynamics	302522	3
Computational Fluid Dynamics	302523	3
Transport Phenomena for Mechanical Engineers	302524	3
Advanced Heat Transfer	302525	3
Advanced Heat Pipe	302526	3
Boiling Heat Transfer and Two-phase Flow	302527	3
Selected Topics in Mechanical Engineering	302594	3
Special Problem Studies in Mechanical Engineering	302595	3
Energy Engineering Group		
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
Synthetic Fuels	302532	3
Fuel Briquetting Technology	302533	3
Gasification Technology	302534	3
Selected Topics in Mechanical Engineering	302594	3

Requirements	Option 1.2	
	Course No.	Cr.
Special Problem Studies in Mechanical Engineering	302595	3
Dynamics System and Automatic Control Group		
Instruments and Measurement	302500	3
Numerical Analysis for Mechanical Engineers	302521	3
Automatic Control Theory	302550	3
Digital Control	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
Agricultural Engineering Group		
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	3
Special Problem Studies in Mechanical Engineering	302595	3
Total	≥6	≥18

4. Required Non-credit Courses

Requirements	Option 1.2	
	Course No.	Cr.
Research Methodology in Science and Technology	302501	3
Seminar	302591	1
Total	2	4

5. Thesis Credit Requirements

Requirements	Option 1.2	
	Course No.	Cr.
Thesis 1, Option 1.2	302597	1
Thesis 2, Option 1.2	302598	5
Thesis 3, Option 1.2	302599	6
Total	3	12