

Master of Engineering Program in Computer Engineering



Research Focus

- Digital Image Processing
- Computer Vision
- Artificial Intelligence
- Software Engineering
- Hardware Technology
- Computer Networks
- Information Engineering

Structure of the Program

Credit Requirements *

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

Core Courses

Requirements	Type A2	
	Course No	Cr
Mathematics for Graduate Studies in Computer Engineering	305500	3
Advanced Computer Architectures and Organizations	305501	3
Advanced Algorithm Analysis and Design	305502	3
Total		9



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Electives Courses

➤ **Computer Engineering**

Requirements	Type A2	
	Course No	Cr
Computational Theory and Complexity	305504	3
Advanced Operating Systems	305505	3
Parallel and Distributed Computing	305506	3
Special Topics in Computer Engineering and Applied Computing	305507	3
Digital System Design	305509	3

➤ **Artificial intelligence and Image Processing**

Requirements	Option Type A 2	
	Course No	Cr
Advanced Digital Signal Processing	305510	3
Machine Learning and Applications	305511	3
Human and Computer Interaction Analysis and Design	305512	3
Advanced Digital Image Processing	305513	3
Advanced Computer Graphics and Animation	305514	3
Multimedia Signal Processing	305515	3
Multimedia Standards and Applications	305516	3
Computer Vision and Applications	305517	3
Special Topics in Digital Image Processing	305518	3

➤ **Software Engineering**

Requirements	Option Type A 2	
	Course No	Cr
Software Engineering Design and Management	305520	3
Requirements Engineering	305521	3
Software Analysis and Design	305522	3
Software Architecture Concept and Design	305523	3
Software Product Line Concept and Design	305524	3
System Verification and Validation	305525	3
Computer System Quality	305526	3
Special Topics in Software and System Engineering	305527	3



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➤ Technology Hardware and computer network

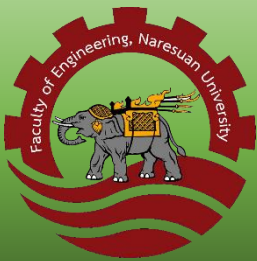
Requirements	Option Type A 2	
	Course No	Cr
Advanced Computer Networks	305530	3
Embedded and Real Time Systems	305531	3
Wireless and Mobile Networking	305532	3
Multicast Protocols and Applications	305533	3
Computer and Network Security	305534	3
Computer and Sensor Interfaces	305535	3
Sensor Networks and Applications	305536	3
Mechatronic and Robotic Systems	305537	3
Special Topics in Embedded and Real Time Systems	305538	3

➤ Data Engineering and Information

Requirements	Option Type A 2	
	Course No	Cr
Advanced Database Management Systems	305540	3
Data and Web Mining	305541	3
Data Integration	305542	3
Enterprise Information Systems	305543	3
Service Oriented Architectures Design and Development	305544	3
Knowledge Engineering	305545	3
Information Retrieval and Web Search	305546	3
Special Topics in Data and Information Engineering	305547	3
Bitcoin and Cryptocurrency Technologies	305548	3
Big Data Analysis	305549	3
Internet of Things	305550	3

➤ Computer Engineering and Application

Requirements	Option Type A 2	
	Course No	Cr
Computer Applications in Health Care	305560	3
Computer Engineering and Technology for Elderly Care	305561	3
Computer Engineering and Technology for Elderly Care	305562	3
Precision Agriculture	305563	3
Software for travel, tourism, and hospitality	305564	3



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Thesis Credit Requirements

Requirements	Type A 1	
	Course No	Cr
Thesis 1, Type A 1	305591	9
Thesis 2, Type A 1	305592	9
Thesis 3, Type A 1	305593	9
Thesis 4, Type A 1	305594	9
Total		36

Requirements	Type A 2	
	Course No	Cr
Thesis 1, Type A 2	305595	3
Thesis 2, Type A 2	305596	3
Thesis 3, Type A 2	305597	6
Total		12

Required Non-credit Courses

Requirements	TypeA1, A 2	
	Course No	Cr
Research Methodology in Science and Technology	305570	3
Seminar 1	305571	1
Seminar 2	305572	1
Total		4