

## Curriculum of M.S. Program Without Thesis Requirement

Non-thesis M.S. program on Telecommunications and Networking is an inter-disciplinary program specifically focusing on the constantly evolving field of information technologies. Students are expected to complete at least 10 courses equivalent to at least 30 credit units of course work. Up to 3 of these courses can be selected from the undergraduate courses in related fields. In addition to these courses, the students should also complete a one-semester project under the supervision of a faculty member in the Electrical and Electronics Engineering Department.

Three of required ten courses are must courses:

- EEE 530 (Digital Communication Theory)
- EEE 533 (Random Processes)
- EEE 536 (Internet Architecture and Protocols)

Remaining seven courses will be selected among the courses given in the list below. There are two groups of elective courses: Technical Elective Courses (EEE, CS, IE courses) and Non-Technical Elective Courses (MBA and LAW courses). Students can take at most 3 non-technical elective courses upon the approval of their advisor.

Elective courses are listed below:

Course Code	Course Name	Credits
EEE 431	Telecommunications I (undergrad course)	3
EEE 432	Telecommunications II (undergrad course)	3
EEE 511	Telecommunications Electronics	3
EEE 512	Microwave Electronics	3
EEE 527	Digital Coding of Waveforms	3
EEE 528	Optics	3
EEE 530	Digital Communications Theory	3
EEE 533	Random Processes	3
EEE 534	Wireless Communications	3
EEE 535	Optical Networks	3
EEE 536	Internet Architecture and Protocols	3

EEE 537	Wireless and Mobile Networks	3
EEE 538	Communication Network Analysis	3
EEE 539	Detection and Estimation Theory	3
EEE 551	Microwave Engineering	3
EEE 552	Antenna Engineering	3
EEE 633	Coding Theory	3
EEE 634	Information Theory	3
EEE 638	Current Topics in Computer and Communication Networks	3
CS 421	Computer Networks (undergraduate course)	3
CS 502	Algorithms II	3
CS 503	Modeling and Simulations	3
CS 514	Wireless Ad Hoc and Sensor Networks	3
CS 515	Mobile and Wireless Networking	3
CS 518	Capacity Planning for Web Services	3
CS 519	Cryptology and Network Security	3
CS 527	Advances in Switching Networks	3
CS 528	Advances in Switching Networks II	3
CS 533	Information Retrieval Systems	3
CS 573	Algorithms I	3
IE 505	Mathematical Programming	3
IE 514	Network Flows	3
IE 518	Discrete Optimization	3
IE 523	Probabilistic Analysis	3
IE 528	Dynamic Programming	3
IE 576	Network Design	3
IE 577	Facility Location on Networks	3

MBA 503	Microeconomics	3
MBA 511	Accounting	3
MBA 522	Corporate Finance	3
MBA 548	Project Management	3
MBA 563	Group Processes and Team Dynamics	3
MBA 568	Entrepreneurship and Innovation Management	3
MBA 576	Business Plan Development	2
MBA 632	Ecommerce and Internet Marketing	2
LAW 409	Intellectual Property Law (undergraduate course)	2
LAW 421	Internet Law (undergraduate course)	2
LAW 508	Telecommunications Law	3
LAW 534	Patent Law	3