Master of Computer Science with specialization in Computer Networking and Telecommunications - 30 credit hours

This program is designed to provide an in-depth knowledge of the theories and practices in computer networking and telecommunications. Students are required to select four specialization courses from the list placed below. Note that CS 542, CS 544, and CS 547 also count as Systems core courses.

Specialization courses:
- CS 542 Computer Networks I: Fundamentals
- CS 544 Computer Networks II: Network Services
- CS 547 Wireless Networking
- CS 548 Broadband Networks
- CS 555 Analytic Models and Simulation of Computers Systems
- CS 549 Cryptography and Network Security

A maximum of 12 credit hours of 400-level courses and a maximum of 6 credit hours of accelerated courses are allowed as part of the 30 credit hours requirement. Twenty hours of coursework must be in CS or CSP (CS Professional) courses at the 500 level.

Students are required to take one course in each of the three core areas (Programming, Systems and Theory).
Programming core courses
CS 522 Data Mining
CS 525 Advanced Database Organization
CS 529 Information Retrieval
CS 540 Syntactic Analysis of Programming Languages
CS 546 Parallel Processing
CS 551 Operating System Design and Implementation

Systems core courses
CS 542 Computer Networks I: Fundamentals
CS 544 Computer Networks II: Network Services
CS 547 Wireless Networking
CS 550 Advanced Operating Systems
CS 555 Analytic Models and Simulation of Computer Systems
CS 570 Advanced Computer Architecture
CS 586 Software Systems Architecture

Theory core courses
CS 530 Theory of Computation
CS 532 Formal Languages
CS 533 Computational Geometry
CS 535 Design and Analysis of Algorithms
CS 536 Science of Programming
CS 538 Combinatorial Organization