

ON CAMPUS

Master of Science in Computer Science

With optional concentrations in:
Computer Networks, Data Analytics, and Security

Compete for positions in high-growth technology areas and build skills that will help you to master emerging software technologies, applications, and approaches, with the Master of Science in Computer Science (MSCS) at Boston University's Metropolitan College. Develop advanced understanding and command of software design and become proficient in programming, algorithms, operating systems, databases, software development, and the management of data, networks, or security.

The MSCS prepares software developers and engineers—and those who seek entry to the field—for rewarding work as information security analysts, network administrators, data analysts, and software systems leaders.

CONCENTRATIONS

Students have the option to choose a concentration:

- Computer Networks
- Data Analytics
- Security

PROGRAM FEATURES

- Courses are offered on campus during convenient evening hours.
- Ten-course curriculum can be completed in less than two years on a part-time basis.
- Applications are accepted on a rolling admissions basis.
- Concentration in Security is certified by the Committee on National Security Systems (CNSS).
- GMAT/GRE not required.
- All domestic applicants to a master's degree program are automatically considered for merit scholarships, and admitted students are nominated based on eligibility.

LEARN FROM THE BEST

- *Established in 1979, the Department of Computer Science at Metropolitan College is the longest-running computer science department at BU.*
- *BU is designated by the National Security Agency and the Department of Homeland Security as a National Center of Academic Excellence in Information Assurance Education and Research.*

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BOSTON UNIVERSITY

Degree Requirements

A total of ten courses (40 credits) is required to obtain the MSCS degree.

Core Curriculum (five courses/20 credits)

MET CS 535	Computer Networks
—OR MET CS 579	Database Management
MET CS 566	Analysis of Algorithms
MET CS 575	Operating Systems
MET CS 662	Computer Language Theory
MET CS 673	Software Engineering

General Electives (five courses/20 credits)

Students not choosing a concentration must select five general electives.

MET CS 532	Computer Graphics
MET CS 544	Foundations of Analytics and Data Visualization
MET CS 550	Computational Mathematics for Machine Learning
MET CS 555	Foundations of Machine Learning
MET CS 561	Financial Analytics
MET CS 570	Biomedical Sciences and Health IT
MET CS 580	Health Informatics
MET CS 581	Health Information Systems
MET CS 599	Biometrics
MET CS 601	Web Application Development
MET CS 602	Server-Side Web Development
MET CS 622	Advanced Programming Techniques
MET CS 664	Artificial Intelligence
MET CS 665	Software Design and Patterns
MET CS 674	Database Security
MET CS 677	Data Science with Python
MET CS 683	Mobile Application Development with Android
MET CS 684	Enterprise Cybersecurity Management
MET CS 685	Network Design and Management
MET CS 688	Web Mining and Graph Analytics
MET CS 689	Designing and Implementing a Data Warehouse
MET CS 690	Network Security
MET CS 693	Digital Forensics and Investigations
MET CS 694	Mobile Forensics and Security
MET CS 695	Cybersecurity
MET CS 699	Data Mining
MET CS 701	Rich Internet Application Development
MET CS 763	Secure Software Development
MET CS 766	Deep Reinforcement Learning
MET CS 767	Advanced Machine Learning and Neural Networks
MET CS 775	Advanced Networking
MET CS 777	Big Data Analytics
MET CS 779	Advanced Database Management
MET CS 781	Advanced Health Informatics
MET CS 783	Enterprise Architecture
MET CS 787	Adversarial Machine Learning
MET CS 788	Generative AI
MET CS 789	Cryptography
MET CS 790	Computer Vision in AI
MET CS 793	Special Topics in Computer Science
MET CS 799	Advanced Cryptography

Concentration Requirements

In addition to the MSCS core curriculum (20 credits), students pursuing one of the following concentrations must also take the requirements specified below.

- ***Computer Networks***
  Five required courses—CS 635, CS 685, CS 690, and CS 775, and one general elective
- ***Data Analytics***
  Five required courses—CS 544, CS 555, CS 688, and CS 699, and one general elective
- ***Security***
  Five required courses: CS 690, CS 695, and CS 789, plus one of the following: CS 599, CS 674, CS 684, CS 693, CS 694, CS 763, CS 793, or CS 799; and one general elective

LEARN MORE

If you have questions, or you're looking for information about admission and tuition, please contact us or visit us online.

bu.edu/met

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