

**EC-COUNCIL**  
**UNIVERSITY**  
ACCREDITED. FLEXIBLE. ONLINE.



**MASTER OF SCIENCE IN**  
**COMPUTER SCIENCE**

# MCS PROGRAM

## DESCRIPTION

EC-Council University's (ECCU) Master of Science in Computer Science (MCS) degree program is a relevant and expanding program in the competitive field of computing and technology. The field of computer science involves continuous technological evolution, which opens up great professional development and advancement opportunities.

The program is curated to provide you with hands-on experience and knowledge application into a wide variety of computing topics to help you move forward on the path of career development.

The Master of Science in Computer Science

(MCS) Degree Program prepares graduates to be strong leaders, and industry experts in computer science related fields. This program provides students with hands-on experience, allowing them to gain and apply knowledge in a wide variety of computing topics and to prepare for a range of technology leadership roles.

The program's comprehensive curriculum and multidisciplinary approach ensure that students master computing theory and technology. Graduates are prepared to leverage the knowledge gained from this program to lead the innovative integration of computer technologies into their organizations.



# MCS PROGRAM

## HIGHLIGHTS

The MCS program prepares students to lead the innovative integration of computer technologies into their organizations. Students develop key skills that employers value including:

- The ability to design computer systems using effective technology and practices.
- Proficiency in determining algorithms and data structures to best optimize software solutions.
- The capability to solve complex computer problems.
- Competence in developing software that incorporates quality and security aligned with industry-standards.
- The ability to determine ethical, legal, and security risks in computer-based systems.

# UNIQUE FEATURES OF MCS

ECCU's MCS program is based on the following four strong unique features.

## CYBERSECURITY

ECCU offers an opportunity where students can learn computer science as a discipline, along with gaining a solid foundation in the more specialized field of cybersecurity. A combination these two subjects are highly in demand in the job market. This is supported by the fact that according to the Bureau of Labor Statistics (BLS), computer science studies is one of the most preferred channels of pursuing cybersecurity career dreams.



## ARTIFICIAL INTELLIGENCE

ECCU's approach to artificial intelligence provides students with practical knowledge and real-world applications in the domain of AI. Students will be able to distinguish between suitable and unsuitable problems for artificial intelligence and learn ways to apply search, logical inference, and constraint satisfaction to solve problems.



## BLOCKCHAIN

ECCU's master's degree in computer science program equips students with the fundamental knowledge of the blockchain technology. Rooted in the concepts of cryptocurrency, smart contracts, and other applications, students will learn all of the essentials of blockchain technology and how to utilize these new capabilities in various applications.



## ROBOTICS

The MCS degree program aims at teaching the essentials of Robotics. Woven into this program are concepts related to robot operating systems (ROS), navigation, planning, python for robotics, and the fundamentals of Linux. Students learn how to design robots, control their behavior, and understand their use as they study the core disciplines of computer science.



# The ECCU **EDGE**

We at ECCU offer you everything smart, everything forward



## Comprehensive Curriculum

Designed by industry experts



## 100% Online Delivery

Flexible, education around the world, anywhere, anytime, healthy study-life balance



## Live Instructor-led sessions

Learn from experts, live interactions



## Hands-On Learning

Labs, simulations



## ACCREDITATIONS & RECOGNITION



## AT THE CORE

ECCU has curated this Master's of Science in Computer Science with special emphasis on the skill-based subjects that deliver the fundamental IT and computing concepts with real-world cybersecurity applications, tools, and techniques used in today's dynamic computer science and cybersecurity careers. This program prepares future-ready graduates to embrace global challenges and opportunities in computing science and cyber security. It includes a holistic curriculum encompassing the computer security, operating systems, robotics, blockchain, algorithm, and much more.

## MCS CURRICULUM

Course Code	COURSE NAME
ECCU 500	Managing Secure Network Systems
ECCU 501	Ethical Hacking & Countermeasures
ECCU 505	Research and Writing
ECCU 507	Linux Networking and Security
ECCU 510	Secure Programing
CS 510	Operating Systems
CS 511	Design of Algorithms
CS 512	Data Systems
CS 513	Blockchain
CS 514	Robotics
CS 515	Artificial Intelligence
ECCU 519	Capstone Project

## CERTIFICATIONS INCLUDED - AT NO EXTRA COST



Teaches you the critical components of network security, incident response, forensic investigation, business continuity, disaster recovery threat assessment and prediction, and attack surface analysis.

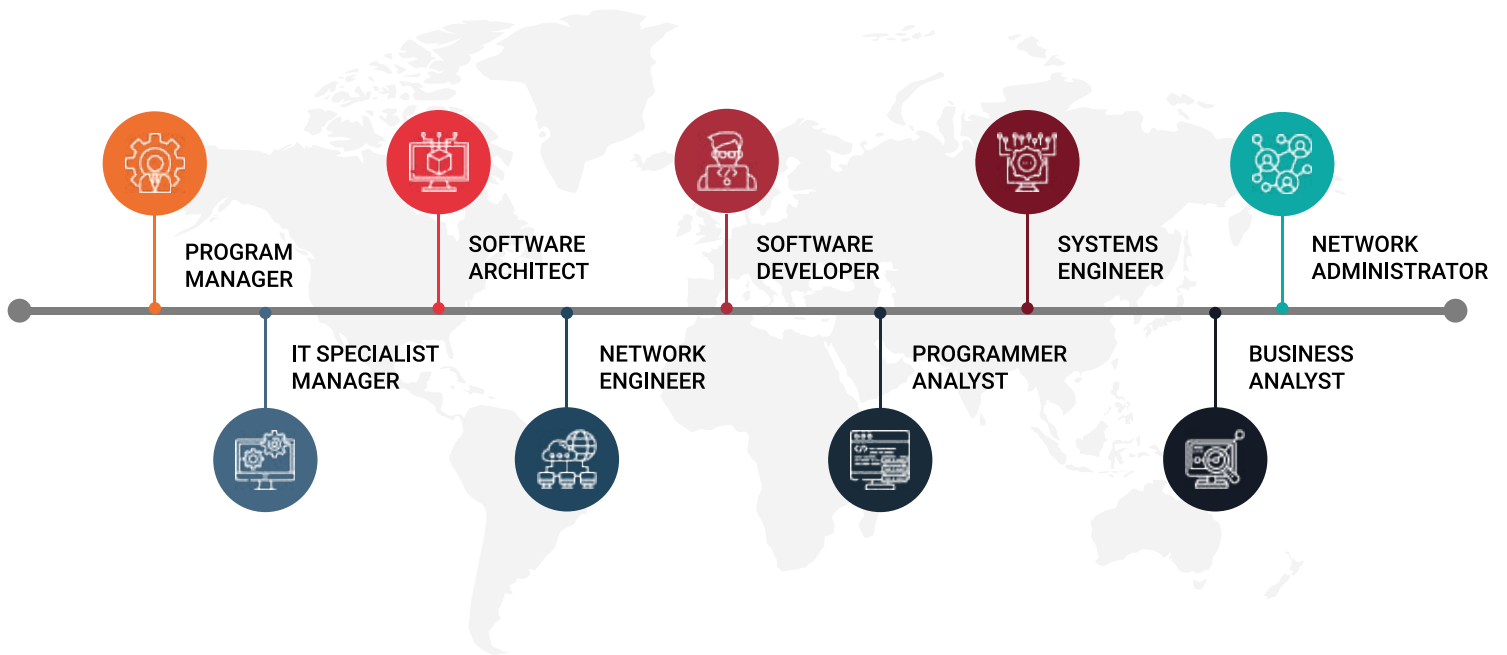


Provides the latest and relevant industry information, including major market trends, vulnerabilities, tools, operating systems, and much more.

# RISE UP

## THE PROFESSIONAL LADDER

Our MCS program opens up a world of potential career opportunities for you as you aim for a higher career trajectory.



## VIRTUAL LABS

**100% Virtualization for a Complete Learning Experience!**

Whether you are a beginner or an expert, iLabs is built for you and is entirely customizable to your needs. No experience necessary.

Practical hands-on learning provides access to real world tools and scenarios, boosts knowledge retention, and is proven to be more effective at preparing you for the job!





## GRADUATE REQUIREMENTS/ ELIGIBILITY

EC-Council University will award the Master of Science in Computer Science with Cybersecurity specialization upon successful completion of all degree requirements.

In addition to the specific degree requirements, each candidate for graduation must meet the following requirements:

- Completion of thirty-six (36) credits of 500 level courses in which the candidate earned a cumulative GPA of 3.0 or better.
- Satisfactory completion of the summative capstone course.
- Completion of all degree requirements within one and a half times the program length or a cumulative course completion rate of 67% of coursework from the date the student enrolls in the university and begins the M.S. in Information Security program.

## ABOUT ECCU

EC-Council University is a premier institution of higher learning that specializes in cybersecurity technologies, enabling its graduates to obtain advanced cyber skillsets. Our unique program allows our graduates to lead their peers to strategically and effectively manage cybersecurity risks in their organizations.

EC-Council University is dedicated to creating superior educational programs that equip graduates to face the latest IT security risks and lead their colleagues in strategically handling those challenges. EC-Council University builds on the recognition and strengths of its parent corporation, The International Council of Electronic Commerce Consultants (also known as EC-Council), a globally recognized IT certification body specializing in information assurance and e-business.





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