

COMPUTER SCIENCE GRADUATE CERTIFICATES

- NETWORKING AND INFORMATION SECURITY • WEB PROGRAMMING
- TECHNOLOGY MANAGEMENT

Loyola University Chicago's Department of Computer Science offers graduate certificates that are ideally suited for working professionals and recent graduates. The certificate programs focus directly on what is needed to enable students to begin a career in the field, or to prepare them to complete a master's degree in Computer Science, Information Technology or Software Engineering. The certificates also enable learners to upgrade their skills for a broad range of careers in research, education, and industry.

You will develop a thorough understanding of the principles and practice of cybersecurity, programming on the web, and enterprise technology management with the appropriate choice of the certificate program.

NETWORKING AND INFORMATION SECURITY

This certificate is focused on the increasingly important area of network security within the broader field of information technology. The coursework includes computer networks and network security, intrusion detection, wireless security and computer forensics.

WEB PROGRAMMING

This certificate is focused on mastering the required programming skills to create and support applications on the web, including mobile web development, client-side web programming, and server-side applications.

TECHNOLOGY MANAGEMENT

This certificate is focused on preparing students for leadership roles in managing the organizational impacts of technological change. The coursework includes organization change and development, project management and operations management.

PROGRAM STRUCTURE

Three classes totaling nine credit hours must be completed. Courses are offered in the evenings and/or online that are convenient for adult learners. Students who do not have undergraduate degree in Computer Science or related disciplines or those who do not have programming work experience may be required to take COMP 170 and COMP 271 to strengthen their preparation. These courses provide the programming background and knowledge of data structures required for taking the certificate classes. These extra courses are offered online in a compressed 8-week format that can be done within one semester.

PROGRAM DISTINCTIONS

As a certificate student, you'll have access to virtual machines (hosted in the department) and other online tools. You will have access to departmental servers and networking for doing academic work. The department and University provide state-of-the-art computing equipment with Mac, Windows, and Linux operating systems.

You will also have access to experimental systems, including computational clusters, software and virtual labs. Loyola offers high-speed internet and is part of the Internet2 consortium. All campuses are interconnected by a high-speed fiber optics network. Each campus has computing centers equipped with extensive software options and standard programming environments.

FACULTY

Computer Science faculty members are both passionate about their teaching and dedicated to their research. Faculty members receive recognition for the quality of their research by regularly obtaining competitive grants from agencies such as the National Science Foundation, the Air Force Office of Scientific Research, and the National Security Agency, as well as industry groups. Areas of faculty interest include algorithms, databases, networks and security, programming languages, software engineering, artificial intelligence, machine learning, natural language processing, information retrieval, human-computer interaction, cloud and high-performance computing, mobile and pervasive computing, embedded and distributed systems, robotics, bioinformatics, computational biology, computational neuroscience, digital music and humanities, computer science education, and broadening participation in computing/STEM.

PREREQUISITES

Although students do not need a background in computer science or programming to complete a certificate, the courses are rigorous and intensive.

FINANCIAL AID

Begin the financial aid process by completing your Free Application for Federal Student Aid (FAFSA) at fafsa.ed.gov.

The Graduate School has limited funds available for financial assistance. Financial aid from Loyola's Financial Aid Office will not impact your ability to apply for financial aid through the Graduate School. To learn more about these financial aid opportunities, visit LUC.edu/finaid/graduateschool.

LEARN MORE

APPLICATION REQUIREMENTS
AND DEADLINES

gpem.LUC.edu/apply

CONTACT INFORMATION

*For further information about
the academic program or to
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