



Worcester Polytechnic Institute (WPI) is the newest NCTA institution. The program at WPI is 18 credits, delivered synchronously online. The courses are listed below.

*Course numbers, descriptions and course substitution policies are subject to change.

CS 525 Special Topics: Fundamentals in Cybersecurity for Teachers

This course covers network and computer security, addressing intrusion methods, privilege escalation, and defense strategies. Topics encompass networking, OS fundamentals, vulnerabilities, cyber defenses, and security administration.

CS 525 Special Topics: Introduction to Digital Forensics for Teachers

This course explores digital forensics, including forensic lab environment, data acquisition, electronic discovery, legal aspects, technical methodologies in Linux, Mac, and Windows forensics, data hiding and steganography, network, and mobile forensics.

CS 525 Special Topics: Cybersecurity Teaching Methods for Teachers

This course covers cybersecurity guidelines (e.g., HSCCG, CSEC, CAE Knowledge Units, NCWF) and effective teaching methods, including cultural relevance, knowledge scaffolding, differentiation, assessment, and instructional technologies (e.g., CTFs, competitions).

CS 525 Special Topics: Cybersecurity Practicum for Teachers

This course offers hands-on experience in cybersecurity operations through service projects, research, or industry engagement. Students apply their knowledge in developing, implementing, testing, and documenting security controls in real-world settings.

CS 525 Special Topics: Computer Forensics Principles and Practices

This course covers computer forensics fundamentals and focuses on providing practical hands-on experiences. Students learn to use practical digital forensic tools for evidence data acquisition and analysis, data recovery, file system analysis, file carving, data hiding, and network forensics.

CS 525 Special Topics: Computer System Attacks and Countermeasures

This course introduces network and computer security, covering intrusion methods, privilege escalation, and system defense. Topics include perimeter defenses, intrusion detection, social engineering, and various attack types.