



# MASTER OF SCIENCE IN CYBERSECURITY: A PROFESSIONAL SCIENCE MASTER'S

"The demand for cybersecurity professionals has grown more than 3.5 times faster than other IT jobs in the past 5 years." -Burning Glass Technology

## Program Overview

Within the cybersecurity field, there is a clear industry need for employees who are both technically proficient and business savvy. CSUSM is pleased to announce the Master of Science in Cybersecurity, a Professional Science Master's to meet workforce need.

With a rapid rise in the incidence of cyber attacks, the President of the United States now characterizes cybersecurity as "one of the gravest national security dangers facing the country." Workforce demand for well-trained and educated cybersecurity professionals has increased dramatically as employers seek candidates with both technical skills and business acumen.

The Professional Science Master's degree is the fastest growing segment in science graduate education, addressing the need for management-minded professionals to work in technology-based functions and organizations.

## Distinguishing Features

- Designed for working adults with classes in the evening
- Program is 38 units and can be completed part-time in 2 years (5 semesters)
- A semester-long "culminating experience" will include onsite experience within the cybersecurity industry
- Cohort design guarantees classes are available as needed

Learn more at: [www.csusm.edu/el](http://www.csusm.edu/el)

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## The curriculum will prepare students to:

- Adapt to changes and to analyze and solve problems (especially in the context of managing information security);
- Conduct risk analyses for implementing information security solutions including performing information security risk assessment, financial/profit analyses, ROI; governance issue assessment, regulations/compliance/legal/ ethical issue assessment, and out-sourcing evaluation;
- Assess and operationalize security decisions;
- Understand/analyze/choose network (wired and mobile) protocols in relation to security;
- Understand/analyze/choose operating systems in relation to security;
- Understand how secure software can/should be developed;
- Understand/choose encryption algorithms;
- Perform offensive security (i.e. ethical hacking); and,
- Perform vulnerability assessment of networks/operating systems/software.

## Courses:

The program is a blend of technology, information systems, business and a semester-in-residence project. Some courses include Information Systems and Security Management, Technology Assessment and Security Risk Management, Secure System Governance, Regulation, and Compliance, Cryptography, Offensive Security & Penetration Testing, Intrusion Detection and Investigation, Leadership for Secure Software, Development of Secure Systems.

## Admissions

- Bachelor's degree in computer science or equivalent educational background
- Incoming GPA of 3.0 in related courses
- General GRE score considered
- Personal Statement
- Two letters of recommendation
- Transcripts
- Financial Aid eligible
- Launch: Fall 2015

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