



Cyber Range in the Evans Hall iSuite

After seeking inputs from the U.S. Department of Defense, the U.S. government, the financial services industry, and other Fortune 500 corporations, the **University of Delaware** designed and created a unique and modern program for cybersecurity education.

Partnering with industry training leader SANS in the creation of a weeklong summer cyber boot camp for undergraduate, graduate, and later elite high school students, held yearly since 2010, reinforced the critical need to incorporate industrial strength, hands-on experiences into all phases of cybersecurity education.

With funding provided by the NSF, UD created a suite of third-generation cybersecurity educational programs which stress use of these student hands-on

experiences to create lasting reinforcement of the expanding body of knowledge of computer and network security now known as cybersecurity.

Foundation cybersecurity courses were created covering subjects such as system protection and hardening, web applications security, pen testing, applied crypto, secure software design, reverse engineering, forensics, and secure embedded systems. The resulting degree programs include certificate programs, a cybersecurity minor for all BS/BA students, both on-campus and online Master of Science in Cybersecurity, a unique dual Cybersecurity/MIS Master's, and a broad portfolio of cyber research opportunities for PhD students spanning several departments such as ECE and CIS. Topics covered include lattice and post-quantum cryptography, machine learning in cybersecurity, secure software, blockchain, indicators of compromise, and hardware security.

Realizing that all engineers, scientists, and college graduates need to understand how cybersecurity will play a part in their careers and in every product or service that they help create, UD is now introducing cybersecurity across all disciplines and recently created a four-year, multidisciplinary undergraduate program for incoming high school seniors called Cyber Scholars.

DESIGNATIONS

- CAE - Cyber Defense Education

CONTACT INFORMATION

Dr. Chase Cotton
(302) 831-8517
cotton@udel.edu

csi.udel.edu