

**ctpost** <http://www.ctpost.com/business/article/Universities-expand-cybersecurity-offerings-as-10686400.php>

## Universities expand cybersecurity offerings as job prospects grow

By **Keila Torres Ocasio** Published 12:00 am, Sunday, December 4, 2016

ADVERTISEMENT



IMAGE 2 OF 2

[Buy Photo](#)

Tarek Sobh, Dean of the University of Bridgeport School of Engineering speaks in the school's Central Forensic Lab in Bridgeport, Conn. Nov. 30, 2016. He is seen here with Al Dressler, Chief Executive Officer ... [more](#)

For more than 15 years, scholars at the **University of Bridgeport** have been conducting research on facial recognition algorithms. And for the last five, the **Central Forensics Lab** and FaceChecks.com have been investigating issues related to cybersecurity as part of UB's incubator program.

So it seemed like just a matter of time before the university created a concentration focused on cybersecurity issues. That time came this fall, when the **UB School of Engineering** began offering a master's degree concentration in Information and Cyber Security Management.

"We're taking it step by step," said **Tarek Sobh**, a senior vice president and dean of the school of engineering at UB. "This is a very much in-demand area. There is a demand and need for professionals in this area and the need is only going to increase."

UB's offering is one of several at universities in the state focused on issues related to cybersecurity, including the **University of New Haven**, **University of Connecticut** and **Sacred Heart University**. Sobh said it's a response to the number of job opportunities in that field.

An analysis by Peninsula of March 2015 Bureau of Labor statistics found there were about 209,000 unfilled cybersecurity jobs in the U.S. Technology company Cisco estimates globally there are more than 1 million unfilled cybersecurity jobs.

ADVERTISEMENT

Another report published by **Burning Glass Technologies** cited professional services, finance and manufacturing or defense as the sectors with the highest demand for cybersecurity jobs, with the greatest demand in jobs that deal with consumer data — finance, health care and retail trade.

Sobh said this explains why UB sees cybersecurity as an interdisciplinary concentration that requires students to learn about a variety of topics before graduation.

Gad Selig, dean for industry research at UB, said a local FBI agent has said the agency is actively seeking professionals in this area. "The FBI can't get enough people who can be a cyber research analyst," he said. "It's a huge hole and it's projected to get much larger."

ADVERTISEMENT

UB has started out its offerings in two areas — a technical concentration in computer science called Systems, Applications and Data Security and a technology management concentration called Information and Cyber Security Management. Selig said roughly two dozen students signed up for courses within these concentrations this year, adding that the program would likely take some time to grow.

"We have a lot of international students who are not quite as familiar with security issues," said Selig.

Sobh said interest in the courses will determine whether the university expands its offerings into a full-time master's degree program.

Sacred Heart University began offering a 36-credit cybersecurity program on a full- or part-time basis in 2013.

"It's filling a need," said Domenick Pinto, associate professor and chair of SHU's **Department of Computer Science and Information Technology**, at the time. "The job market in this discipline is phenomenal, but there are not a lot of cybersecurity specialists."

The university's courses include cryptography, systems security, digital forensics, securing the cloud and ethical hacking.

SHU lists several job opportunities on its website, accompanied by salary ranges. A data security analyst's salary can range from \$89,000 to \$122,000, a network security administrator can earn between \$85,000 and \$118,000 and a network architect salary can be between \$95,000 and \$137,000, according to the SHU site.

UConn also has the **Connecticut Cybersecurity Center** and recently launched a partnership with consumer financial-services firm Synchrony Financial for the launch of a **Center of Excellence** in Cybersecurity at the university, funded by Synchrony.

**Alexander Schwarzmann**, head of the **UConn Department of Computer Science** and Engineering, said he expects within the next few years a quarter of the students in that department will be part of the cybersecurity concentration.

He said hands-on learning is the only way to ensure students graduate with the knowledge necessary to excel in the field. "You really need to get your hands dirty in cybersecurity to learn it," Schwarzmann said.

**AI Dressler**, who runs the Central Forensics Lab and FaceChecks.com at the University of Bridgeport incubator program and will be teaching courses in the new concentration, said it's also important to incorporate what the "real world is doing."

Schwarzmann said UConn is currently hiring cybersecurity professionals to keep up with the demand for course offerings and expects to hire nearly a dozen staff members in that field. "We have to respond to the demand," he said.

UB's Sobh said there are many fields that now require expertise or knowledge of cybersecurity, but there is also a projection for new jobs to be created in this industry. "We're preparing them for jobs that might not even exist now," he said.

*ktorres@hearstmediact.com; 203-330-6227*

© 2017 Hearst Communications, Inc.

**H E A R S T**