

# Cyber defenders to the rescue

## WCTC team takes first place in collegiate competition

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PEWAUKEE — Waukesha County Technical College students in the IT Network Security Specialist degree program flexed their cyber defense skills and took home first place in the 2018 Collegiate Cyber Defense Competition on March 3 and are now qualified for regionals, according to Cyndikaye Medved, associate dean of Information Technology at WCTC.

Several colleges from Midwestern

states were involved in the competition but teams only competed against colleges within their state. Only three teams competed in Wisconsin with Milwaukee School of Engineering as the runner-up and Madison College ranking third.

The competition was designed to emulate a scenario where the IT staff of a company was fired due to wrongdoings. Each cyber defense team was required to manage and secure the network within a 30-minute window, or before the old staff had the opportunity to get home and wreak havoc on "their"

network.

In each cyber defense scenario, a single team, known as the blue team, was responsible for dealing with misconfigurations, intentional sabotage, virus infections, ransomware, corrupted services and more while keeping their systems running. The red team, comprising Wisconsin-based professional penetration testers, would mount these cyber-attacks.

"They're actively looking for security holes while there's another team

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Waukesha County Technical College students in the IT Network Security Specialist degree program won the 2018 Collegiate Cyber Defense Competition on March 3. Milwaukee School of Engineering was the runner up and Madison College placed third.

## Cyber

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actively attacking that system," said Dave Hagen, who monitored the competition and is also a senior systems engineer at River Run Computers Inc. "They're basically operating as an IT department for a company conducting business and while trying to detect, defend and mitigate security vulnerabilities and active attacks."

The three teams were evaluated by the "white team," or moderators that based each team's score on defending servers, recovering failures and responding to the company requests.

### Staying ahead of the bad guys

The fact that WCTC won the competition may not come to a surprise since WCTC is one of two colleges in the state with a IT Network Security Specialist degree program certified by the Department of Homeland Security and the National Security Agency — the other being UW-Stout, according to Medved.

While the cyber security program is still in its infancy, Medved said she anticipates the program will grow

because companies are choosing to fortify their networks as cyberattacks become more prevalent. Medved cited simple cases of identity theft that have become all too common in the last decade. Or, for those who remember, Target had a cyber breach that hit 40 million credit cards in 2013 and Neshotah's network was hacked by ransomware late in 2017.

"People are stealing data, people are stealing identities, they're breaking into companies and stealing their intellectual property of data," Medved said.

But it's not just a matter of teaching students how to defend against these cyberattacks — it's just as important that they learn how viruses and malware evolve, she said. In fact, there's actually jobs out there for "ethical hacking" by people known as "white hats," or hackers paid to expose holes in a company's security system, she said.

"They're becoming more sophisticated and harder to defend," Medved said. "In this day, we as good guys have to stay several steps ahead of the bad guys."