College Students on Front Line of Cyberattacks
Green River College, University of Washington Teams Qualify for Cyber Defense Competition at Highline College

DES MOINES, Wash. — College students studying cybersecurity from around the Pacific Northwest will participate in real-world scenarios during an upcoming competition at Highline College. Teams from 13 institutions will compete in the annual Pacific Rim Collegiate Cyber Defense Competition, March 22–24, 2019.

The event gives students practice thwarting hackers while maintaining a corporate network that cannot be replicated in a typical classroom.

Competitive training better prepares students for the workforce, says Dr. Amelia Phillips, the regional director of the event and faculty member at Highline.

“With data breaches, identity theft and other cyberattacks becoming a daily occurrence, we need to train more and more people to be successful in this field,” she says.

More and more, indeed. According to Cybersecurity Ventures, there will be an estimated 3.5 million cybersecurity positions unfilled by 2021.

Last month, 17 colleges and universities competed in a qualifier for 12 open slots. Two teams tied, so 13 will participate in the 12th annual competition:
— Brigham Young University-Idaho (Rexburg, Idaho)
— Clover Park Technical College (Lakewood)
— Columbia Basin College (Pasco)
— The Evergreen State College (Olympia)
— George Fox University (Newberg, Oregon)
— Green River College (Auburn)
— Oregon State University (Corvallis, Oregon)
— Saint Martin’s University (Lacey)
— University of Idaho (Moscow, Idaho)
Highline College students participate in the event as well, not as competitors, but as designers, builders and judges.

With support from the college’s Information Technology Services staff, Highline students have designed the company network that will be used in the simulation, complete with intentional security flaws. These students are enrolled in the college’s applied bachelor’s degree program in Cybersecurity and Forensics and several applied associate degree programs: Network Security Engineer, Digital Forensics and Web/Database Developer.

During fall quarter 2018 and winter quarter 2019, between 12 and 15 Highline students have participated, depending upon their course load.

Each competing team consists of between six and eight students with a cap of two graduate students on each team. Students from at least two high schools will be on hand to participate in the National Initiative for Cybersecurity Education (NICE) Challenge Project and observe the competition with the hope that the students will be inspired to pursue cybersecurity as a profession.

Open to two- and four-year colleges and universities in Washington, Oregon and Idaho, the Pacific Rim Competition serves as the regional competition for the [National Collegiate Cyber Defense Competition](https://www.nccde.org). This year’s national championship is scheduled for April 23–25, 2019, in San Antonio, Texas.

This is Highline’s 10th year hosting the regional event and the fourth year Highline students have designed and built the scenario.

Using the computer labs on Highline’s campus, teams are tasked with maintaining a company network while they are being attacked.

Teams will need to secure the operating systems, email servers, websites and other parts of a business network. They must also update their websites, create new user accounts and perform other standard business activities while delivering excellent customer service to irate customers who call in.

“During the competition, students may be dealing with unexpected events, people being laid off, installation of a new server or other challenges while being under attack by professional hackers — also known as penetration testers,” says Phillips. The hackers will be trained professionals from government agencies, National Guard, Navy’s Space and Naval Warfare Systems Command and local industry.
The primary objective of the competition is to provide students with real-world challenges. The second objective is to give potential employers — the sponsors — a chance to observe students under pressure. The event will include a job fair where students will be able to interview with sponsors for potential jobs and internships.

National sponsors include National Security Agency (NSA), Palo Alto Networks and Raytheon. Regional and local sponsors include Air Force Civilian Service, Amazon Web Services (AWS), Boeing, Casaba, Pacific Northwest National Laboratory, SpecterOps and UW Bothell.

Attachment: Photo of Dr. Amelia Phillips

Links within this release:
— Pacific Rim Collegiate Cyber Defense Competition: http://prccdc.org/
— Cybersecurity Ventures: https://cybersecurityventures.com/jobs/

About Highline College:
Founded in 1961 as the first community college in King County, Highline College annually serves more than 17,000 students. With over 70 percent students of color, Highline is the most diverse higher education institution in the state. The college offers a wide range of academic transfer, professional-technical education, basic skills and applied bachelor’s degree programs. Alumni include former Seattle Mayor Norm Rice, entrepreneur Junki Yoshida and former Washington state poet laureate Sam Green.

About Highline’s Computer Science and Computer Information Systems Department:
The Computer Science and Computer Information Systems department at Highline prepares students for a variety of information technology-related careers, including computer programmers, network specialists, website and database developers, and data recovery and computer forensics specialists.

In 2013, Highline earned designation as a National Center of Academic Excellence in Information Assurance 2-Year Education (CAE-CD) from the National Security Agency and the Department of Homeland Security. The CAE-CD designation is awarded to community colleges that have established a high quality cybersecurity program and have mapped their courses to current national standards. Being a CAE-CD institution gives Highline unique standing since fewer than 80 of the nation’s 1,100 two-year colleges have achieved the designation. The department now also offers an applied bachelor’s degree in Cybersecurity and Forensics.