

Real World Cyber Security Experience: From Learning to Earning with Capella University

Real world, experiential learning helps students develop knowledge, skills, and abilities that they can take directly from the classroom to the workplace.

This direct connection from learning to earning is important to all students, but none more so than adult learners who have gone back to school, often while continuing to work full-time. Maybe their goal is to grow in their current job role or career. Maybe they are ramping up for a job or career change. Maybe they are exploring new interests. Regardless of motivation, after juggling the many demands of working while going to school, most adult learners expect to graduate with skills that they can immediately apply in the workforce or other direct activity.

To say that the cyber security industry is seeking skilled job candidates is an understatement. [Cybersecurity Ventures](#) predicts that there will be 3.5 million (that's million) *unfilled* cybersecurity jobs globally by 2021. The interactive [Cyber Seek website](#) shows over 500,000 U.S. cybersecurity job openings as I write. With gaps of this magnitude between open jobs and applicants, cyber security is a perfect discipline for educators to focus on and provide experiential learning that students can directly apply outside the classroom.

Capella University, an online university headquartered in Minneapolis, Minnesota, recently did just that by adding a hands-on lab component to the capstone course for its *BS in Information Technology, Information Assurance and Cybersecurity* program. One of their over-arching design goals was to make the course as close as possible to the “real world” of cyber security work. We are proud that they chose [Project Ares by Circadence](#) to deliver this critical element.

In a [recent Circadence webinar](#), Dr. James W. Barker, Adjunct Faculty in the School of Business and Technology spoke in detail about the process the team at Capella went through to integrate Project Ares into their capstone course. Project Ares enabled them to address three objectives:

1. Give students hands-on practice using their cyber skills against a variable adversary
2. Provide authentic learning scenarios that students could report on to demonstrate their knowledge of the attack and recommendations for future prevention
3. Create an opportunity for teamwork and collaborative problem solving, which are essential skill requirements for cyber teams and hiring managers





“By the end of the second week of the course,” said Dr. Barker, “almost to an individual, students stated that this is the most realistic, engaging, and challenging course that they have taken. One group was so engaged and motivated by working on the Project Ares platform that they completed their final group mission two weeks early.”

From his faculty point of view, Dr. Barker is pleased that Capella has delivered the equivalent of a formal cyber security internship and cannot envision a better means of exposing their learners to “real world” security work. And Capella isn’t stopping here; they are considering plans to incorporate Project Ares learning exercises into other courses at the undergraduate and graduate level.

[Check out the webinar](#)

where Dr. Barker shares more about *how he set up the course syllabus* and learn more about the power of Project Ares as an on-demand and hands-on learning platform that uses cyber range-as-a-service technology to deliver virtual Machine-based cyber security training exercises.

