

# The Virtual Apprenticeship Challenge

iQ4 through it's Cybersecurity Workforce Alliance (CWA) has created a virtual cybersecurity program that fits within educational systems to accelerate student readiness, align academic learning with industry projects, create certifications, and provide workforce career pathways. Industry professionals and academic institutions together deliver a digital curricula with real-world experience that prepares students for employment in the cybersecurity workforce. Companies are able to expand their workforce with a broader pool of talent that is relevant to their specific needs. And businesses make a social impact by opening opportunities to diverse populations. Educational institutions adopt the program, create student engagement and retention, and facilitate student internships and employment after graduation.

## Mission

Leverage technology to help companies find, train, and retain talent.

Address the skills gap by scaling the competencies of students.

Establish an industry credentialed applied learning model for cybersecurity.

Significantly reduce the training expenditures for college graduates.

## Goals

### 10,000 students

Sponsor 10,000 cybersecurity student apprenticeships in 3 years.

### workforce platform

Scale workforce readiness with a centralized development platform.

### skills marketplace

Create a skills marketplace comprised of higher education, students, and employers.

### talent pipeline

Disrupt the status quo of buying a talent pipeline by building one.

“ 2 million job shortfall estimated in cybersecurity by 2022. ”

25% of the CWA alumni have full-time careers in cybersecurity. 98% had no background in the industry.

## Results

Increase cybersecurity and risk awareness

Build a talent pipeline and pathways for students

Align the next gen workforce with market demands



## Engagement Model

The program fosters diversity and inclusion, levels the playing field for students, and creates a skills marketplace comprised of higher education institutions, students, and employers. It offers the opportunity to engage with industry to enhance both corporate and alumni fundraising initiatives. Moreover, iQ4 has committed to setting aside up to 20% of the funds raised from corporate sponsors to underwrite program coordinators, instructors, and student scholarships.

- **Industry-driven curricula** on the iQ4 workforce development platform, easy to plug and play, and fits seamlessly into the academic curriculum.
- **Case studies** created by industry **subject matter experts** and molded into the current curriculums.
- Students receive a **Digital Skills passport**, a multimedia resume. They can select job roles that use the NICE SP 800-181 skills taxonomy within projects.
- **Weekly mentoring sessions** with seasoned professionals who provide **real-world knowledge**.
- **Development of collaboration**, writing, presentation, analysis, and communication skills.
- **Customized curricula** delivered either virtually or in a **hybrid model of virtual and classroom format** for any academic discipline.
- Assessments and badged credentials **capture applied knowledge results** by the student team, peers, instructors, and mentors.
- **Courses are funded by corporate sponsors** who are addressing the skills gap in cybersecurity and student lab fees.
- Courses are offered either semester-long or integrated into an existing course as a 4 week case study.
- **Courses focus on the student experience, engagement, and learning outcomes.**
- Proven **best practice for uniting industry with academia** based on impressive alumni results.
- Experiential education that builds **career pathways, increases retention, and incents student admissions.**

## Course Options

Type	Cohort
Semester	7 to 40
Semester	40 to 100
4 week case study	7 to 40
4 week case study	40 to 100

## Examples

- The Threat Within
- Cyber Crimes
- Cyber Risk, Compliance & Governance
- IT Audit & Assurance
- Internet of Things
- The Dark Side of Cyber
- The Business of Cyber