

Purdue University – West Lafayette, IN

Award Amount: \$11,999,996

Project Name: P-CAP: Purdue Cybersecurity Apprenticeship Program (P-CAP)

Projected Apprentices to Be Served: 5,000

Industry Focus: Information Technology (Cybersecurity)

Private Sector Partners include a business consortium composed of such employers as Raytheon, ClearanceJobs, ManTech, Military Talent Group, SAIC, TCC, and NSWC Crane Division, as well as national industry associations, including Centurion Military Alliance, Cyber Leadership Alliance, North American Strategy for Competitiveness, NextFlex, and the International Consortium of Minority Cybersecurity.

Type(s) of Apprenticeship Program Proposed: Registered Apprenticeship Program (RAP), Apprenticeship (other)

The P-CAP: Purdue Cybersecurity Apprenticeship Program (P-CAP) project is a competency-based apprenticeship program that builds on an already-approved, USDOL National Standard for Apprenticeship for Cybersecurity, which partner Purdue Global (PG), an online university, developed. P-CAP provides a two-level curriculum, mapped to the NICE Cybersecurity Workforce Framework and the ACM/IEEE/AIS SIGSEC/IFIP Cybersecurity Guidelines, which PG is delivering via its existing online platform. The curriculum gives apprentices the opportunity to receive an associate's degree in IT, a bachelor's degree in Cybersecurity or Cloud Computing/Solutions, and a range of certifications in both cybersecurity and cloud computing. These certifications include Network+, Cloud+, Linux+, Security+, System Security Certified Practitioner, CCNA Routing & Switching, Certified Ethical Hacker, Certified Network Defender, Global Information Assurance, Certified Incident Handler, Certified Information Security Professional, Global Information, and Certified Information System Security Pro.

P-CAP is also developing the PG Cybercenter/CyberRange, which provides a venue for practical application of cybersecurity concepts, allowing apprentices to use their learned skills in mock scenarios, including apprentice competitions. The CyberRange in particular is a virtual learning community that enables students to engage in peer mentoring. In addition, the project is creating a P-CAP Apprenticeship Leadership Academy to help apprentices develop social skills by immersing them in online, self-paced cybersecurity workplace cases. Academy completion will lead to micro-credentialing and badging.

P-CAP aims to quickly reach national scale through its partnership with PG (a virtual campus), which is delivering the online program. The project is further developing PG's existing National Standard for Cybersecurity Support Technician apprenticeship as an immediately-scalable curriculum and apprenticeship model that can be adapted to specific company needs in other industry sectors. Finally, the project is collaborating with Fastport, Inc. a DOL-recognized employer intermediary, to reach employers nationwide.

IHE consortium members are Purdue University (lead) and Purdue Global.