Modeling Exercise Summary

Integrating Industry Certifications into Four-Year Degree Programs
Cybersecurity Convening

July 9-10, 2019

Working in small groups, convening participants discussed and developed various partnership models:

Compromise Model

- What do certification bodies, universities, students, and employers need/want?
- Start by looking at the similarities between certification bodies and universities missions for ways to come together, and adjust mindsets to achieve both end goals
- Map curriculum to certifications that align
- Develop multiple certification pathways to encompass varied interests
- Require certifications as part of degree programs if both sides are committing time and resources to the effort
- Results in a well-rounded and certified student

Ecosystem Model

- Looks at attributes of a good model
- Incorporates stakeholder engagement – industry, students, universities, faculty development
- Focuses on education that matters – lifelong learning
- Model differs for undergrad, graduate, and professional students
- Goal is a work-ready individual

Gap Analysis Model

- Focuses on what should be done internally for all parties
- Identify gaps in employment outcomes and/or market need
- Determine possible pathways that relate to and fix the gaps
- Map what courses relate to which certifications, even if they are in other fields/areas
- Need a central coordinator for the university and outreach coordinator at the certification body to work together

Return on Investment Model

- Starts with a clear value proposition/ROI for both universities and certification bodies
- Involves endorsements from industry, and other stakeholder input and buy-in
- One central department needs to be the program owner, with shared responsibility across all involved program areas
- Partner with accreditation agency
- Consider certifying faculty to teach to the program

- Incorporate work-based learning to help student gain the necessary experience for employers and certification requirements

Non-Traditional Pathway Model

- Considers other avenues for integration (e.g., business school major or criminal justice field with cybersecurity specialization)
- Need to identify IT classes to incorporate that will help pass the exam, or add lab time/tutoring for those without the needed IT background
- Consider non-academic programs as well, like robotics clubs
- Needs strong advising

Certifications within Minors Model

- Minors have relatively easy approval process comparatively, often with easier buy-in
- Cybersecurity and philosophy, or music, or arts, etc.
- Provides a way to pursue a desired major, but with more employable skills for life after graduation
- Develops further talent for the pipeline outside of traditional paths

Apprenticeship Model

- Look at program and student data in development
- Focus is on the student, not making the pathway too convoluted
- Consider intermediaries, and role they can play in helping to develop programs and connect players together
- Faculty can focus on teaching and not on the details
- Consider helping willing faculty earn certifications, so courses can informally and organically align with certification competency parameters; recognize and reward faculty that are certified