Paradigms for Cybersecurity Education in a Homeland Security Program

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Abstract/Description
Cybersecurity threats to the nation are growing in intensity, frequency, and severity and are a very real threat to the security of the country. Academia has responded to a wide variety of homeland security (HS) threats to the nation by creating formal curricula in the field, although these programs almost exclusively focus on physical threats (e.g., terrorist attacks, and natural and man-made disasters), law and policy and transportation. Although cybersecurity programs are commonly available in U.S. colleges and universities, they are invariably offered as a technical course of study nested within engineering (or other STEM) programs. We observe that technical and calculus-based courses might not be well suited to HS students and do not necessarily meet a broad suite of professional needs in this discipline. As a result, cybersecurity principles, and strategies tend to be under-represented in the typical HS program. This paper proposes paradigms that could be included in a cybersecurity curriculum that are consistent with the broad array of outcomes now evident in many HS degree programs.

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What should be included in a cybersecurity degree program? How should the volume of curricular recommendations be organized and disseminated? The full meeting report is available on the CSEC2017 website. Homeland security curriculum design: Considering intelligence and information systems courses. Paper presented at the annual meeting of the Southern Criminal Justice Association, Nashville, TN. Paradigms for cybersecurity 650 education in a homeland security program. Jan 2013. 35-44. G Kessler. J Ramsay. Kessler, G., & Ramsay, J. (2013). Paradigms for cybersecurity 650 education in a homeland security program. Interested in pursuing your Cybersecurity education? The industry is experiencing growth and skills gaps from applicants. How will you differentiate? Students who decide to enroll in a cybersecurity program can gain the knowledge needed to sit for some of the leading industry exams and certifications. If time and cost are a factor, many institutions offer graduate certificate programs that can be completed faster, and in some cases, courses taken as part of the certificate curriculum can also count toward an eventual master’s degree in the same field. The ROI of a Cybersecurity Degree. Much cybersecurity work takes place in the homeland security, defense, government or military sectors.