## Integrating Hands-on Cybersecurity Exercises into the Curriculum in 2021

Richard Weiss, The Evergreen State College
Jens Mache, Lewis & Clark College
Elizabeth Hawthorne, Union County College
Ambareen Siraj, Tennessee Tech University
Blair Taylor, Towson University
Siddharth Kaza, Towson University
Ankur Chattopadhyay, Northern Kentucky University

Contact: weissr@evergreen.edu

The critical shortage of cyber security professionals remains an unsolved problem. We need to greatly expand the community of faculty teaching in cybersecurity in order to meet the increasing demand for security professionals. The number of security-focused competitions and exercises has increased in recent years. As faculty we need to integrate the right ones into our courses. As a community, we need to discuss how to create a more unified environment and contribute to each other's educational projects. We would like to bring together new and experienced faculty to build community and engage in this work. We need to develop a critical mass of faculty. We want to ask each other questions about what we want from this learning community.

One benefit of having a learning community is that it will be easier to provide support for new members to learn about resources and get help. These resources include exercises, webinars, and slides. We will share experiences, practices and ongoing efforts, including our own (e.g. Security Injections, the Security Knitting Kit project, and EDURange). The BoF also benefits experienced members, helping them to disseminate their work and reach other faculty with similar interests. As a community we have begun to discuss what works and what problems students and instructors have encountered. For the last eight years, we have been doing that at SIGCSE. The questions we will ask are, "What exercises have you tried? What are your experiences? What are you looking for from the community."

**ACM Categories & Descriptors:** K.3.2 Computer and Information Science Education; K.6.5 Security and Protection

**Keywords:** security education; security; cybersecurity; interdisciplinary education; liberal arts curriculum;