

CAMO - Cybersecurity for Advanced Manufacturing Organizations

Advisory Committee Meeting

Year 2

Northwest State
Community College



Cyber Security
Education for
Advanced
Manufacturing
Organizations
(CAMO)



Made possible through support from the National
Science Foundation (NSF) award number [1809129](#)

Initial Grant Goals

- ▶ Create Virtual Training Scenarios
 - ▶ Mapped to Industry Standards and Best Practices
 - ▶ Externally Reviewed
 - ▶ Intended Audience is Advanced Manufacturing Workers and IT Students
- ▶ Integrate into Northwest State Community College Courses
- ▶ Make Available through Ohio Cyber Range

Create Virtual Training Scenarios - Topics

- ▶ Five Scenarios are Complete
 - ▶ Industrial Control System (ICS) Basics
 - ▶ Wireshark
 - ▶ Zoning/Network Segmentation
 - ▶ Virtual Private Network (VPN)
 - ▶ Intrusion Detection System/Intrusion Prevention System (IDS/IPS)

Create Virtual Training Scenarios

- ▶ Each Scenario Consists of:
 - ▶ Overview
 - ▶ Background Material
 - ▶ Video
 - ▶ Lab
 - ▶ Worksheet

Integrate into Northwest State Community College Courses

- ▶ Scenarios used in CYB220 - Security Auditing in Spring 2020 and Spring 2021
- ▶ Scenarios used in CYB230 - Network Defense in Fall 2021

Make Available through Ohio Cyber Range

- ▶ Still a Work in Progress

Current Grant Goals

- ▶ Create more Virtual Training Scenarios
- ▶ Disseminate Material as Widely as Possible

Create more Virtual Training Scenarios

- ▶ At least Two more Scenarios are Planned
 - ▶ Metasploit
 - ▶ Open Platform Computing (OPC) Server

Disseminate Material as Widely as Possible

- ▶ Current
 - ▶ Used at Tiffin University in Summer 2021
 - ▶ Used by Kellogg Community College Fall 2021
 - ▶ Available on VMWare, VirtualBox or Hyper-V Hypervisors
 - ▶ Available for Local Download and Use
 - ▶ Available on Northwest State Community College Servers

Disseminate Material as Widely as Possible

- ▶ Planned/Potential
 - ▶ Used by Four County Joint Vocational School Spring 2022
 - ▶ Host at Other Colleges
 - ▶ Create an ICS Security Course at Northwest State Community College
 - ▶ Offer Free/Low-Cost Seminars to Local Industry

Comments/Ideas

- ▶ Please give use your comments or ideas
- ▶ You can also email them to us after the meeting if you think of something later
 - ▶ Tony Hills - thills@northweststate.edu
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