



Centers of Academic Excellence in Cybersecurity

COMMUNITY QUARTERLY

Quarterly Newsletter

Discovering and discussing the ever-changing landscape of Cybersecurity Education for NSA Centers of Academic Excellence designees.

Winter 2022 | Issue 1



In this issue:

- Program Office News 2
- RING Project Updates 4
- CAE-NCX Tech Talks 5
- Upcoming Events 9



Program Office News

The NCAE-C Program Office extended the deadline for the annual report submissions to **February 15th 2022**

2



CAE-NCX Competition

Teams of competitors are gearing up for the pilot of the CAE-NSA Cyber Exercise (CAE-NCX)

5



Community Spotlight

NCAE-CD Community of Practice in Cyber Defense

6



Newsletter created by the CAE in Cybersecurity Community in collaboration with the NCAE-C Program Office.

NCAE-C Speaker Series

Are you conducting research on important cybersecurity topics? Is your institution making strides that will affect how cybersecurity will be conducted in the future? Does your insight on cybersecurity education need to be shared with current cybersecurity employers?

The National Centers of Academic Excellence in Cybersecurity Program Office is exploring the launch of an NCAE-C Speaker Series, to begin in the spring. The Program Office is seeking proposals for presentations from those in the CAE-C Community.

The presentation should take no longer than 45 minutes and will take place at the National Security Agency to a live, virtual, or hybrid audience of cybersecurity and intelligence professionals. No cybersecurity-related topic is off-limits.

Proposals are due by 11:59 P.M. EST, February 15, 2022. Proposals shall be limited to three (3) pages and

must include a title, the speaker's name and contact information, and the name of the institution.

Each NCAE-C may submit one proposal for each designation they hold. All proposals will be reviewed by a team of NSA Subject Matter Experts and the top 10 most relevant will be selected. Please note that speakers MUST be United States Citizens. Proposals should be sent to: NCAECSpeaker@nsa.gov

This opportunity is subject to availability of funds. This call does not imply a requirement on behalf of the government to commit to the activity. If selected, air fare, lodging, and meals will be reimbursed at the US Government rate (which may or may not be equal to your actual expense). The NCAE-C Program Office will work with the speaker to make arrangements.

For more information, please contact Ms. Alex Ross at amross2@nsa.gov or NCAECSpeaker@nsa.gov

Annual Report Deadline Extended

The NCAE-C program office extended the deadline for the annual report submissions to **February 15th 2022**.

Submitting the report is required for all CAE institutions. CAE-CD institutions that were part of submission cycles 0-7, working in the tool and are new, are excused from the requirement this year.

The remaining CAE-CD institutions, along with all those holding CAE-R or CAE-CO designations are to complete the report. There are two parts to the report for CAE-CD and CAE-CO institutions (POS and CAE portions) while CAE-R schools only have one part.

Contact the Program Office with any questions at caepmo@nsa.gov.



Submission Tool Update: Next CAE-R Institutions

The new tool is being configured for CAE-R applications, using existing criteria.

A pilot group has already been identified to work with mentors to submit material in the tool in the early spring.

Additionally, small working groups are working to identify improvements to the CAE-R process and criteria. Items identified in the working groups should take effect in Fall 2022.

CAE-CO Designation Tool

The first cycle of CAE-CO re-designations using the new tool will open in mid-January.

The new tool has been in operation for a few cycles for CAE-CD designations, with the pilot for CAE-CO designations having launched in October.

Several institutions participated in the pilot under the mentorship of Seth Hamman from Cedarville University.

Their application packages are currently under pre-submission review and will go to the final review panel in the coming weeks.



Curriculum to Augment RING Project

Brookdale Community College and its coalition have created an updated list of interactives aligned with the RING curriculum and identified faculty and developers committed to working on them.

A select team is working on developing an instructor guide for the Virtual Career Experience developed under the original RING grant. Additional activities include the setup of a server and reserved domain to host all interactives and instructor guides created for Ethical Hacking Escape rooms.

The team plans to meet face-to-face during a workshop the week for February 21st, to continue work on this project.

For more information, contact Mike Qaissaanee: mqaissaanee@brookdalecc.edu.

Northwest Hub and State Departments of Education

The CAE NW Regional Hub's Collaboration with State Department of Education for the Northwest Region has made significant progress on identifying multiple stakeholders throughout the region.

These stakeholders will be key in helping to identify and understand rules, policies, processes, and procedures related to dual credit and dual enrollment opportunities for cybersecurity courses within the secondary system. Partners have begun conversations with these stakeholders to develop potential agreements between CAE institutions and the State Departments of Education.

For more information, contact Marc Dupuis at marcjd@uw.edu.

CAE-NCX Competition

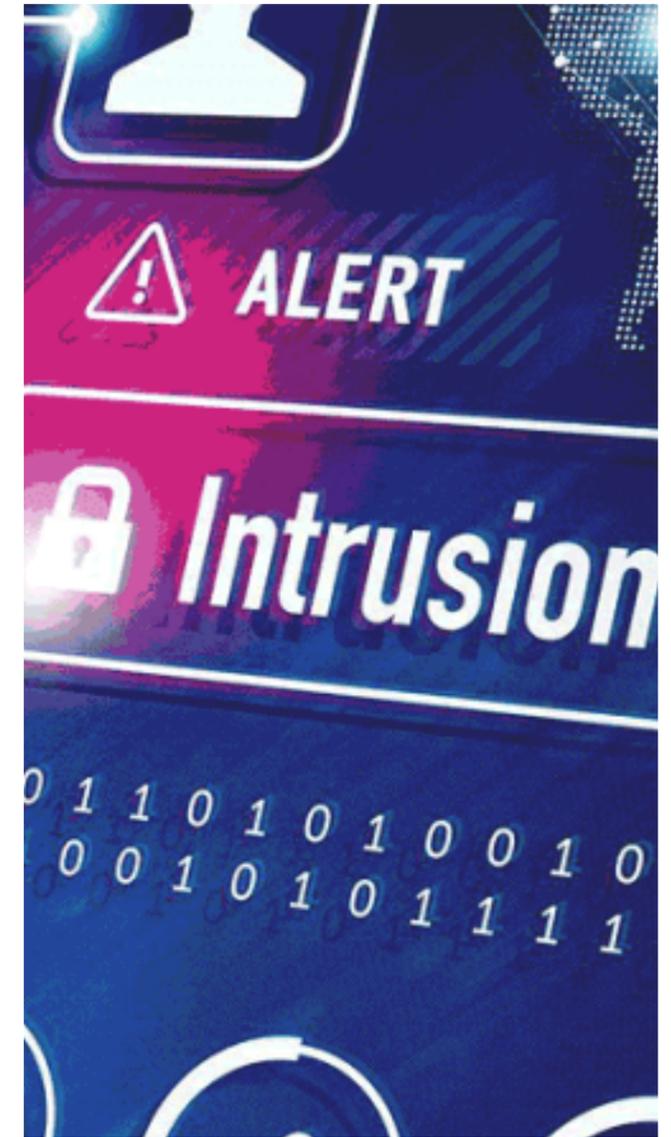
Teams of competitors are gearing up for the pilot of the CAE-NSA Cyber Exercise (CAE-NCX), on April 11–13, 2022.

Since 2018, the National Security Agency (NSA) has sponsored the NCX competition amongst the five U.S. service academies. In subsequent years, all six senior military colleges joined the NCX. Competition is fierce amongst the rival teams, and now it's time to bring the same challenges to CAE students. The 2022 pilot of the CAE-NCX will evaluate the competition's value to the CAEs and lay the groundwork for full implementation in academic year 2022-2023.

CAE-NCX is a competition designed to develop and test cybersecurity skills, teamwork, planning, communication, and decision-making. Participants will gain a deeper understanding of the current threat environment and learn new techniques and tools. There are 33 teams representing all five CAE-C regions across the CAE Community for Spring 2022.

Although the CAE teams will not be competing against the federal service academies this year, the modules for NCX and CAE-NCX will be identical. The competition will consist of modules on cryptography, policy, malware, software development, and a cyber combat exercise. Scoring is comprised of 15% for each of the first four modules and 40% for the cyber combat exercise.

Leading up to the spring competition, NSA will host the CAE-NCX Tech Talk Series aimed towards enhancing teams' preparation for the culminating event. Prospective competitors are encouraged to participate. CAE-NCX Tech Talks are open to the entire CAE-C Community regardless of participation status. Registration information is available at: <https://www.caecommunity.org/events/events>.



RING Pilot Course Set to Take Off

A new instance of the RING high school pilot course is launching in January and still has available registration spots for students.

Any interested students or parents can email ring@caecommunity.org or complete the Student Interest Form found on the RING website: <https://www.caecommunity.org/initiative/k12-ring>.

CAE-NCX Tech Talk Schedule:

- *Software Development*, Tuesday, February 8th and Thursday, February 10th
- *Policy*, Tuesday, February 22nd and Thursday, February 24th
- *Malware*, Tuesday, March 15th and Thursday, March 17th

Tech Talks begin at 7:30pm ET. For more information, please visit caecommunity.org

Community Spotlight

NCAE-C Community of Practice (CoP) in Cyber Defense

By Yair Levy (Nova Southeastern University),
Anne Kohnke (University of Detroit Mercy)

Peer-to-peer learning is not new and has proven to facilitate trust development, cohesion, and deeper understanding among individuals who share experiences to improve practices. A Community of Practice (CoP) was first proposed in 1991 and defined as “a group of individuals who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Lave & Wenger, 1991, p. 29).

Learning is fundamentally a social process, and many groups have newcomers, old-timers, artifacts, knowledge, and practices. Creating a space, whether physical or virtual, in which participants can collaborate may evolve naturally or be created deliberately with the intention of advancing collective knowledge. The National Centers of Academic Excellence in Cybersecurity (NCAE-C), led by the National Security Agency (NSA) and its federal partners including the National Initiative for Cybersecurity Education (NICE), established three **Communities of Practice** (CoPs) and are a prime example of such peer-to-peer learning. They are not only important for many disciplines but are especially critical for the success of the national cybersecurity education landscape. By inviting individuals into these physical and virtual spaces to learn from each other, participants are

provided opportunities to collaborate on research projects, share and further develop course curriculum to strengthen the competencies of graduates, and to build relationships for personal and professional development. The body of knowledge that defines the discipline of cybersecurity encompasses a significant number of topics and competencies, while no one entity has all the tools and resources for the advancement of the field. With this in mind, the insightful leadership of the CAE Community (<https://www.CAECCommunity.org>) formed a CoP for each of the three NCAE-C designations: Cyber Defense (CAE-CD), Cyber Operations (CAE-CO), and Cyber Research (CAE-R). In one short year, the active participation of members willing to share ideas, strategies, and best practices has proven to be very beneficial.

The initiatives undertaken in the respective CoPs have emerged spontaneously by an expressed need, a common passion, and/or a concern. At the onset, a Steering Committee was created for the largest community, the CoP CAE-CD designation, and regular meetings were established to create an open dialogue. During these meetings, several initiatives were identified and then established by key individuals who are passionate about a common theme or purpose and willing to serve as leaders. These focused subgroups then organized and formed their own events and activities in order to share experiences and knowledge to further improve what they do. Two Co-Chairs for each of the CAE CoPs ensure that each focused initiative continues to provide benefit and stays on track by providing project oversight. During

the past year, the participation and feedback has been overwhelmingly positive. A healthy outcome of these focused CoP initiatives has been the development of trust and appreciation among the community members.

The **Community of Practice in Cyber Defense** (CoP-CD) (<https://www.caecommunity.org/community-of-practice/cyber-defense>) co-chaired by Dr. Yair Levy and Dr. Anne Kohnke, is the largest of the three. A sizable Steering Committee of over 35 individuals who have extensive experience with the NCAE-C program was established that meets quarterly to identify and discuss shared needs. The mission of the CoP-CD Steering Committee is: “To collaborate with both the CAE Community and the CAE-C Program Management Office (PMO) to build a Cybersecurity Excellence Community of Practice in Cyber Defense (CoP-CD) in order to gather and share input from the broader community as well as to provide continuous program improvement”.

Several initiatives were identified. The first one is called **Getting to Know Your Fellow CAEs** co-chaired by Dr. Sandra Blanke (University of Dallas) and Gretchen Bliss (University of Colorado Colorado Springs) which coordinates a monthly event for CAE-CD schools to share who they are, their programs, research, and opportunities for collaboration on research and curriculum needs. Another initiative is called **CAE-CD Regional and CAEs Outreach Competition** co-chaired by Dr. Wei Li (Nova Southeastern University) and Dr. Xiuwen Liu (Florida State University) that involves all five NCAE Regional Hubs to recognize the outstanding community outreach that NCAEs around the nation are conducting yearly. Another initiative underway is called **CAE-CD Shared Resources and Group Pricing** co-chaired by Christopher Simpson (National University), Stephen Miller (Eastern New Mexico University - Ruidoso Branch Community College), and Dr. Tirthankar Ghosh (University of West Florida) is working to negotiate group

pricing on behalf of NCAE-C schools in order to gain access to cyber ranges, labs, and certificate prep platforms that they would not otherwise be able to afford. Another initiative underway is called **New CAE-CD Point of Contact (POC) Onboarding Process** co-chaired by Dr. Eric Berkowitz (College of Lake County), Faisal Kaleem (Metropolitan State University), Dr. Anne Kohnke (University of Detroit Mercy), and Anthony Pinto (University of West Florida) is working on the creation of a New Point-of-Contact (POC) Onboarding Process Workshop for all NCAE schools who may have a new POC. Some schools have turnover in their POCs with the result of all institutional knowledge lost when that person moves on, causing numerous issues for the NCAE-C Program Management Office (PMO). Additionally, a new initiative called **CAE-CD Student Competitions and CTFs** (Capture the Flag) co-chaired by Dr. Daniel P. Manson (Cal Poly Pomona) and Dr. John Sands (Moraine Valley Community College) is focused on Student Competitions and CTF events to collect, categorize, and promote to the CAE Community.

Reference

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.



CAE Forum

Please join us for the February CAE Forum on Wednesday, February 2, 2022 beginning at 1:00 pm EST.

Time: 1:00 - 1:50 pm EST

Topic: Hacking the Human - The Human Factor

Location: <https://caecommunity.zoom.us/my/caeforum>

AND

Time: 2:00 – 2:50 pm EST

Topic: Access Controls Recommendations

Location: <https://caecommunity.zoom.us/my/caeforum>

Log in as “Guest” and enter your name. No password required.

If you have a topic you’d like to present, please email caepmo@nsa.gov.

CAE-C Southwest Regional Hub Exercise

This event is hosted by San Antonio College and the University of Texas at San Antonio in collaboration with NUARI

This event is a virtual Distributed Tabletop Exercise, planned for 4 hours and will leverage Zoom and NUARI’s DECIDE® platform. Introductory Exercise play is open to all Undergraduate students of the Southwest Regional Hub Institutions. The exercise will provide Cybersecurity, Situational Assessment, Public Information and Warning, Intelligence and Information Sharing response exposure.

The goals of the exercise are:

- Gain greater understanding of key roles and responsibilities during executive cyber response.
- Gain and increased understanding of the complexities of an executive cyber response.

Participants (Undergraduate students) will be aligned to roles commonly found in a large organization’s “C-Suite,” as well as important support roles (e.g., legal counsel and public information) and will focus on the time frame AFTER a data breach within their organization. Participants will share their own perspective(s), within their teams and other supporting organizations, to collaborate on the “Board” response. This exercise is a virtual Distributed Tabletop

Exercise Event is virtual on February 25, 2022 from 1 pm to 5 pm Central Time.

To register please email: Glenn Dietrich, glenn.dietrich@utsa.edu

Virtual Faculty Development Training Series

Have you been considering honing your professorial chops?

Join us for monthly training sessions that will help you prepare to become a faculty member at an institution of higher education (college or university). These monthly sessions, held from January 2022 to June 2022, will prepare you for everything from the application process, i.e., writing a resume (CV) and cover letter to writing research and diversity statements. Check out the details for the 6 sessions below. You can register for a single session or as many as you like. Register [Here](#).

Upcoming Events

June 6-8

NICE Conference & Expo Westin Peachtree Plaza | Atlanta, Georgia

The NICE Conference is the annual convening of community members and thought leaders from education, government, industry, and non-profits to explore ways of developing a skilled cybersecurity workforce ready to meet the challenges of the future.

For more information, please visit: <https://niceconference.org/>

CAE Symposium Westin Peachtree Plaza | Atlanta, Georgia

Following the NICE Conference & Expo, the CAE in Cybersecurity Symposium provides community members and applicants the opportunity to network, receive community updates, and present their research to the community. The symposium is open to all existing Centers of Academic Excellence in Cyber Defense (CAE-CD), Research (CAE-R), and Cyber Operations (CAE-CO), as well as government representatives and invitees.

June 9-10

September 16

Save the Date! National Cybersecurity Virtual Career Fair

Time: 9am-1pm PT

The National Cybersecurity Training and Education (NCyTE) Center and the Centers of Academic Excellence in Cybersecurity Community are hosting the sixth annual National Cybersecurity Virtual Career Fair, on September 16, 2022. This event is open to students and alumni from over 300 institutions designated as Centers of Academic Excellence and institutions in the Candidate's Program (pending approval).

Stay current on all Community events by checking out the community calendar at <https://www.caecommunity.org/content/calendar>.

The CAE-C Program Office uses the contact information uploaded into www.iad.gov/nietp to send out routine reminders, solicitations, and event invitations. Please ensure that you have updated your information with the correct contacts from your institution.

NCAE-C Program Staff Contacts

Lynne Clark

Chief, National Centers of Academic Excellence in Cybersecurity Program Office

Lorie Pfannenstien

National Centers of Academic Excellence in Cybersecurity Program Manager

Karen Leuschner

National Centers of Academic Excellence in Cyber Defense Program Manager

Annie Becker

National Centers of Academic Excellence in Cyber Defense Assistant Program Manager

Lauren Scott

National Centers of Academic Excellence in Cyber Research Program Manager

Jason Smith

National Centers of Academic Excellence in Cyber Operations Program Manager

Valerie Hansel

National Centers of Academic Excellence in Cyber Operations Summer Program Manager

Alice Smitley

DoD CySP Program Director, NCAE-C Grants Program Manager

Emily Vogel

DoD CySP Program Manager

Winter Edition 2022

Contact

NCAE-C Program Office

- caepmo@nsa.gov
- <https://public.cyber.mil/ncae-c/>

CAE Community Office

- info@caecommunity.org
- <https://www.caecommunity.org>

Newsletter created by the
CAE in Cybersecurity
Community in collaboration
with the NCAE-C Program
Office.

To submit ideas, stories, photos, events, feedback, or more, please email us at info@caecommunity.org.

