CAE Community of Practice
Cyber Defense - New CAE-C POC Onboarding Process

Welcome to All!

CAE-C Program Management Office

Lori Pfannenstein, Cybersecurity Program Manager
Karen Leuschner, Cyber Defense Program Manager
Annie Becker, Deputy Cyber Defense Program Manager

Co-Chairs of the CAE-CD Community of Practice (CoP)

Yair Levy, Nova Southeastern University
Anne Kohnke, University of Detroit Mercy

Co-Chairs of the Onboarding Process Initiative

Faisal Kaleem, Metropolitan State (MN) University
Eric Berkowitz, College of Lake County
Anthony Pinto, University of West Florida

CoP Website: https://www.caecommunity.org/community-of-practice/cyber-defense
YouTube link for recordings: www.youtube.com/channel/UCLr52AD7_I-GuW_HyMGc9sA

New CAE-C POC Onboarding Process

Agenda

- **Introduction**
  - Who Should Attend?
  - National Centers & Regional Hubs
  - Expectations for CAE Schools
- **CAE-C Redesignation**
  - NCyTE Site
  - Cycles
  - Application Roadmap
  - Access to Tool
  - Continuous Improvement
- **Collaboration and Activities—2Yr vs. 4Yr Perspectives**
  - Tech Talk/Forum Presentations
  - Annual CAE Symposium
  - CAE PI Annual Meeting
  - Career Fairs & Faculty Development
- **Reviewing and Mentoring**
  - Engagement with Regional Hubs; Community at large
  - Cyber Competitions
  - Grants and Scholarships
  - Resources
- **Resource Links**
- **Contact Information**

New CAE-C POC Onboarding Process
Introduction

Community of Practice in Cyber Defense *Mission*:

*"**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**".*

What is this initiative and who should attend this meeting?

- New Point of Contacts (PoCs)
- Replacement PoCs
- Alternate PoCs
- Program of Study Contacts (PoS)

New CAE-C POC Onboarding Process

Where Can I Find CAE Community Information?

Program Management Office (PMO) CAEPMO@nsa.gov

CAE National Centers

1. **CAE Community:** https://www.caecommunity.org/national-center/cae-community
   - **CAE-C Regional Hubs** https://www.caecommunity.org/about-us/cae-regional-hubs
     - Northeast, Southeast, Midwest, Northwest, and Southwest
   - **Initiatives** https://www.caecommunity.org/about-us/cae-initiatives
   - **Communities of Practice** https://www.caecommunity.org/about-us/cae-communities-practice
2. **CAE Candidates Program National Center** https://www.caecommunity.org/national-center/candidates-program
3. **CAE Peer Review National Center** https://www.caecommunity.org/national-center/peer-review
4. **Knowledge Unit Evolution** https://www.caecommunity.org/national-center/ku-evolution
   - **CyberEd Wiki** https://cyberedwiki.org/index.php?title=Welcome_to_CyberEd_Wiki

New CAE-C POC Onboarding Process

The CAE-C Designation Types

Current Statistics of CAE Schools:

- **CAE-CD, Cyber Defense** *(300+ institutions)*
- **CAE-R, Research** *(80+ institutions)*
- **CAE-CO, Cyber Operations** *(20+ institutions)*

CAE Institution Map: https://www.caecommunity.org/cae-map

DoD Cyber Exchange: https://public.cyber.mil/ncae-c/

New CAE-C POC Onboarding Process

Expectations For CAE Schools

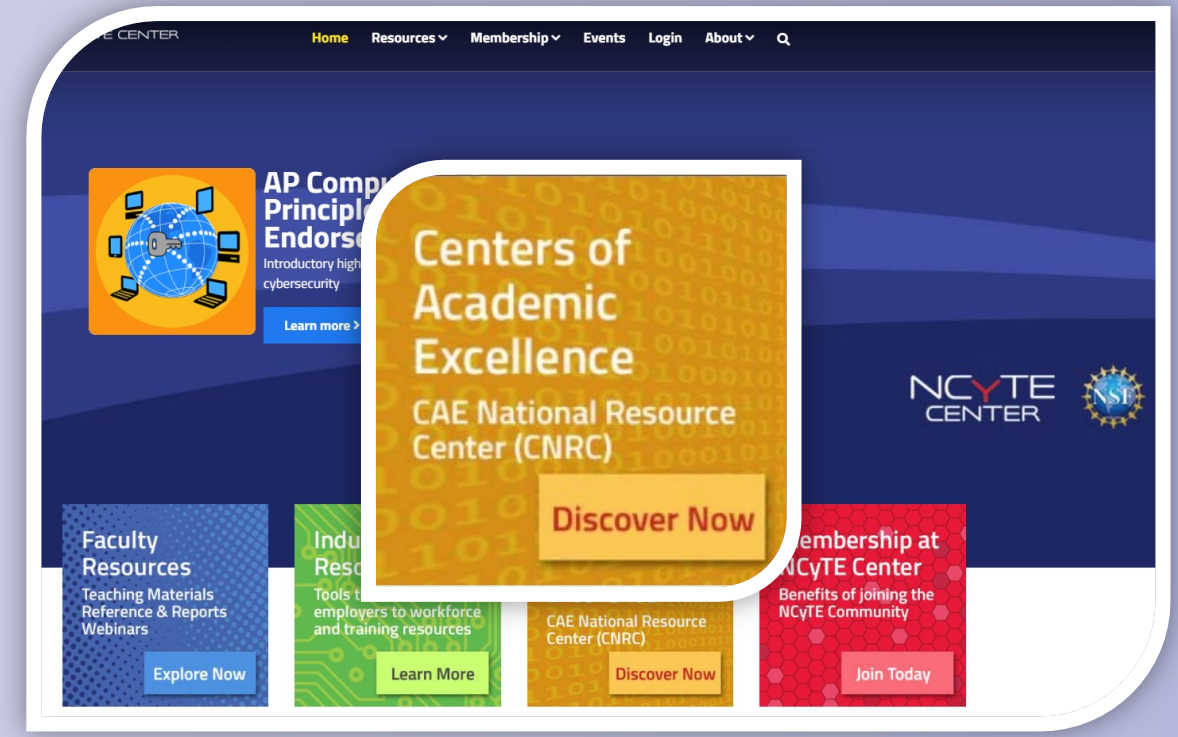
- **Keep contact information current**
- Ensure you **receive notifications** and **reply promptly** to the Program Management Office (PMO) CAEPMO@nsa.gov
- Understand the various **POC Designation terms**:
  - *CD, R, CO, Center, each Program of Study (PoS)*
- Ensure you have **access** to the new software application tool:
  - https://nsa-ncae.com/login
- **Annual Reports**—submitted to the PMO via the CAE Application tool

New CAE-C POC Onboarding Process

Presenter: ***Faisal Kaleem***
Metropolitan State (MN) University

New CAE-C POC Onboarding Process

NCYTE Website



https://www.ncyte.net/

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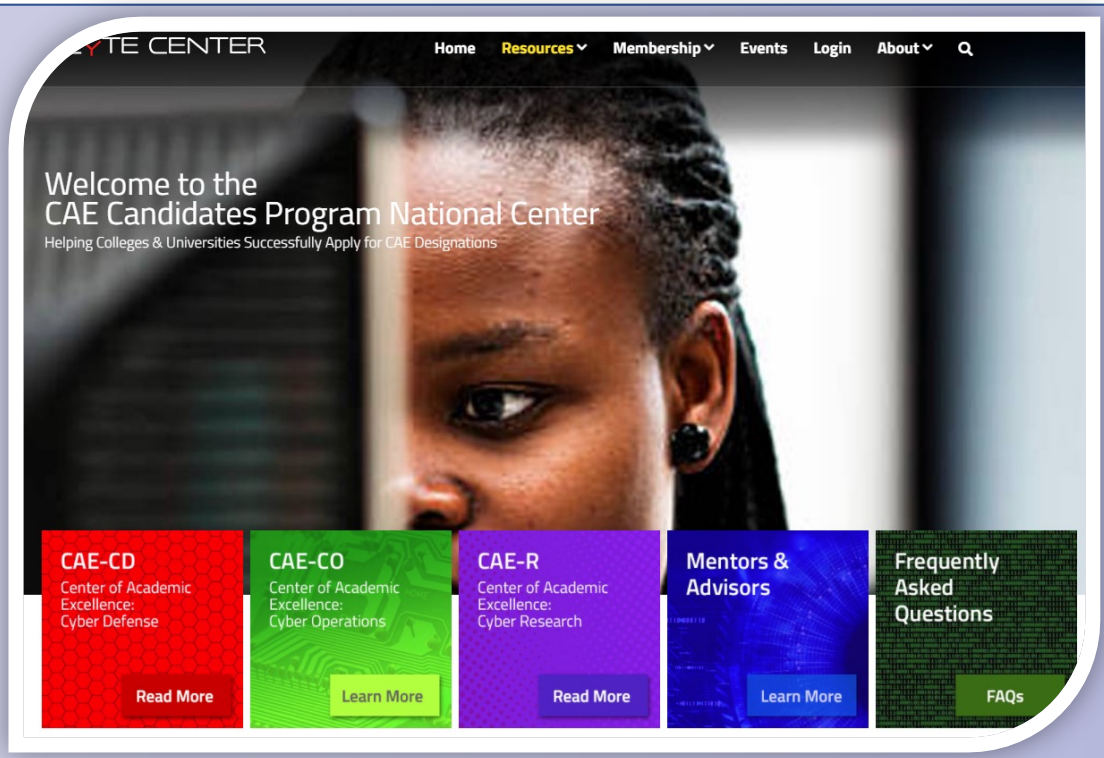
NCYTE Website



https://www.ncyte.net/resources/cae-designation-resources

New CAE-CD POC Onboarding Process

PoS and CAE Cycles

Program of Study (PoS) Cycle	Access to Application	*Application Due	**Pre-submission Review (PSR) Feedback Deadline	Final Submission
PoS Cycle 1	10/15/2020	12/15/2020	1/1/2021	1/15/2021
PoS Cycle 2	11/17/2020	3/15/2021	4/1/2021	4/15/2021
PoS Cycle 3	1/1/2021	5/2/2021	5/16/2021	5/30/2021
PoS Cycle 4	2/15/2021	6/16/2021	6/30/2021	7/14/2021
PoS Cycle 5	4/1/2021	7/31/2021	8/14/2021	8/28/2021
PoS Cycle 6	5/16/2021	9/14/2021	9/28/2021	10/12/2021
PoS Cycle 7		6/30/2021	7/14/2021	7/28/2021
PoS Cycle 8	8/16/2021	3/15/2022	3/30/2022	4/15/2022
PoS Cycle 9	10/5/2021	3/15/2022	3/30/2022	4/15/2022
PoS Cycle 10	4/15/2022	6/15/2022	6/30/2022	7/15/2022
PoS Cycle 11	7/15/2022	9/15/2022	9/30/2022	10/15/2022

CAE Cycle	Access to Application	*Application Due	**Pre-submission Review (PSR) Feedback Deadline	Final Submission
CAE Cycle 1	3/26/2021	4/9/2021	4/23/2021	5/7/2021
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CAE Cycle 3	8/8/2021	8/22/2021	9/5/2021	9/19/2021
CAE Cycle 4	9/22/2021	10/6/2021	10/20/2021	11/3/2021
CAE Cycle 5	11/6/2021	11/20/2021	12/4/2021	12/18/2021
CAE Cycle 6	12/21/2021	1/4/2022	1/18/2022	2/1/2022
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https://www.ncyte.net/resources/cae-designation-resources/cae-cd-application-assistance-resources#one

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Renewal of PoS Validation and CAE designation happens every five years

https://www.ncyte.net/resources/cae-designation-resources/cae-cd-application-assistance-resources#one

New CAE-C POC Onboarding Process

CAE Designation Requirements

CAE-CD Designation Requirements

The CAE-CD Designation Requirements document can answer many of the questions institutions have about the application process. Download the CAE Cyber Defense (CAE-CD) Program Guidance document from the NCAE-C website via the button below.

NCAE-C Website

https://www.youtube.com/watch?v=Te2QbbVOwiU

New CAE-C POC Onboarding Process

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NCAE-C Website

CAE Designation Workshop Video

The CAE Candidates Program National Center at Whatcom Community College (WCC) has developed this two-hour video workshop for regionally accredited U.S. colleges and universities interested in earning the CAE in Cyber Defense (CAE-CD) designation. The workshop is presented by Corrinne Sande, PI / Director of NCyTE and Director, Computer Sciences and Information Systems at WCC.

CAE Program Overview
The first portion of the workshop provides an overview of the CAE program, the designation criteria, the submission timeline, and the new application process.

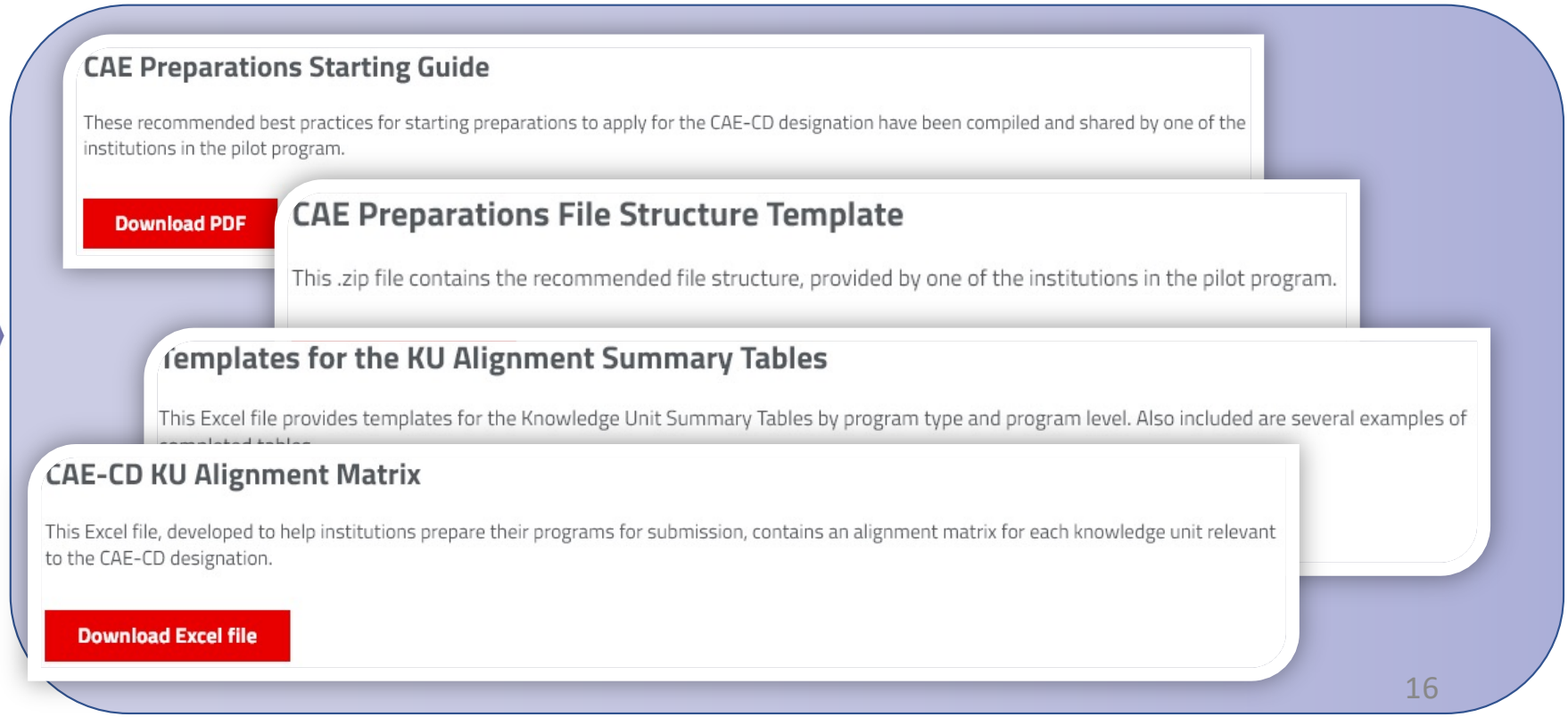
Part I: Program of Study (PoS) Validation
This portion of the video covers the details of Program of Study Validation and the first part of the application.

Part II: CAE Institutional Designation
The last half of the workshop covers the second part of the application and CAE-CD Institutional Designation.

https://www.youtube.com/watch?v=Te2QbbVOwiU

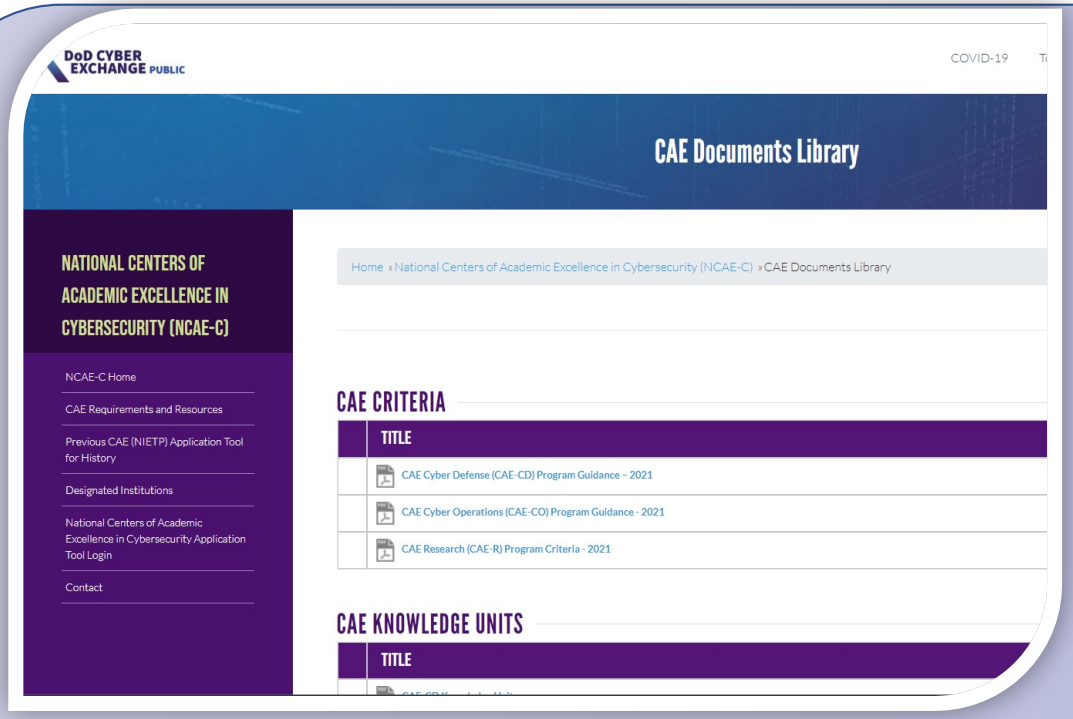
New CAE-C POC Onboarding Process

CAE Designation Requirements



New CAE-C POC Onboarding Process

CAE Designation Requirements

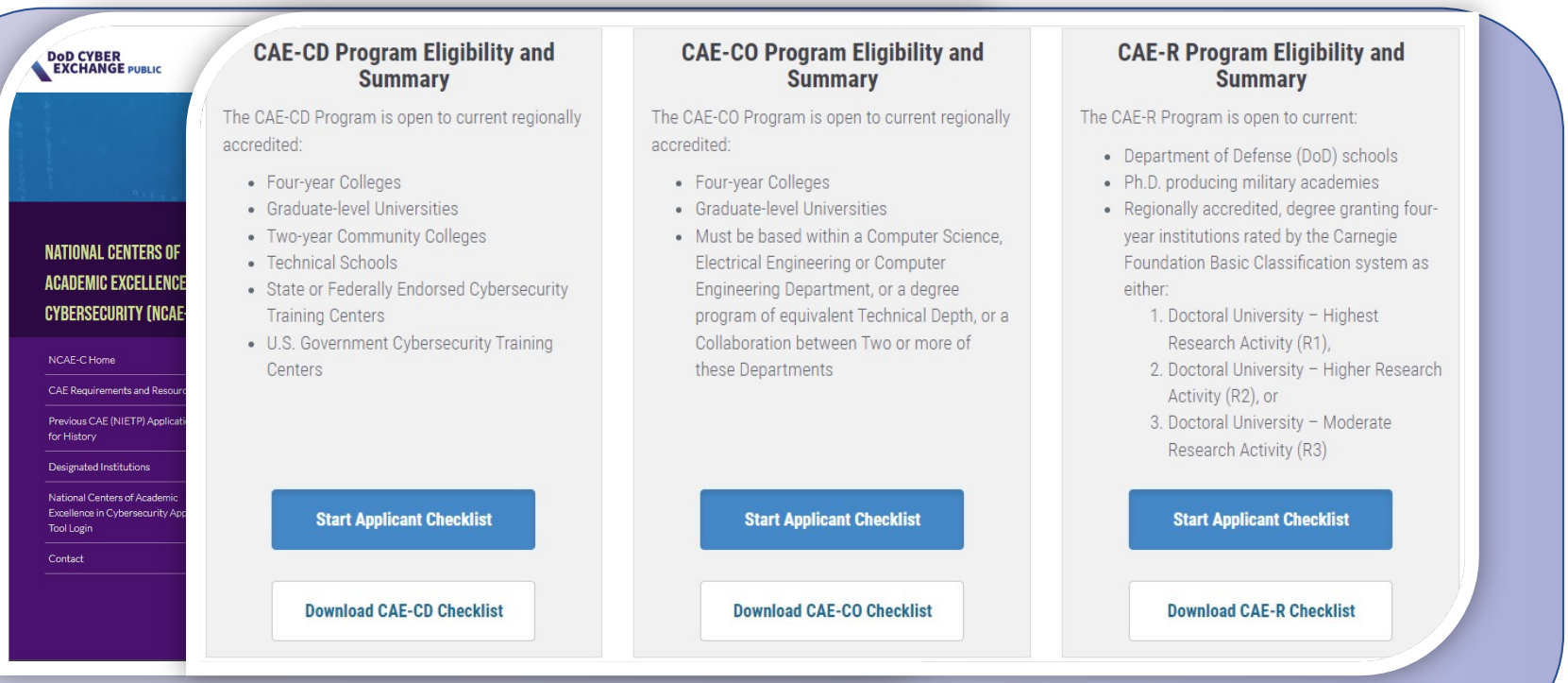


https://public.cyber.mil/ncae-c/documents-library/

https://www.caecommunity.org/about-us/national-cae-cybersecurity-program/applicant-checklist

New CAE-C POC Onboarding Process

CAE Designation Requirements



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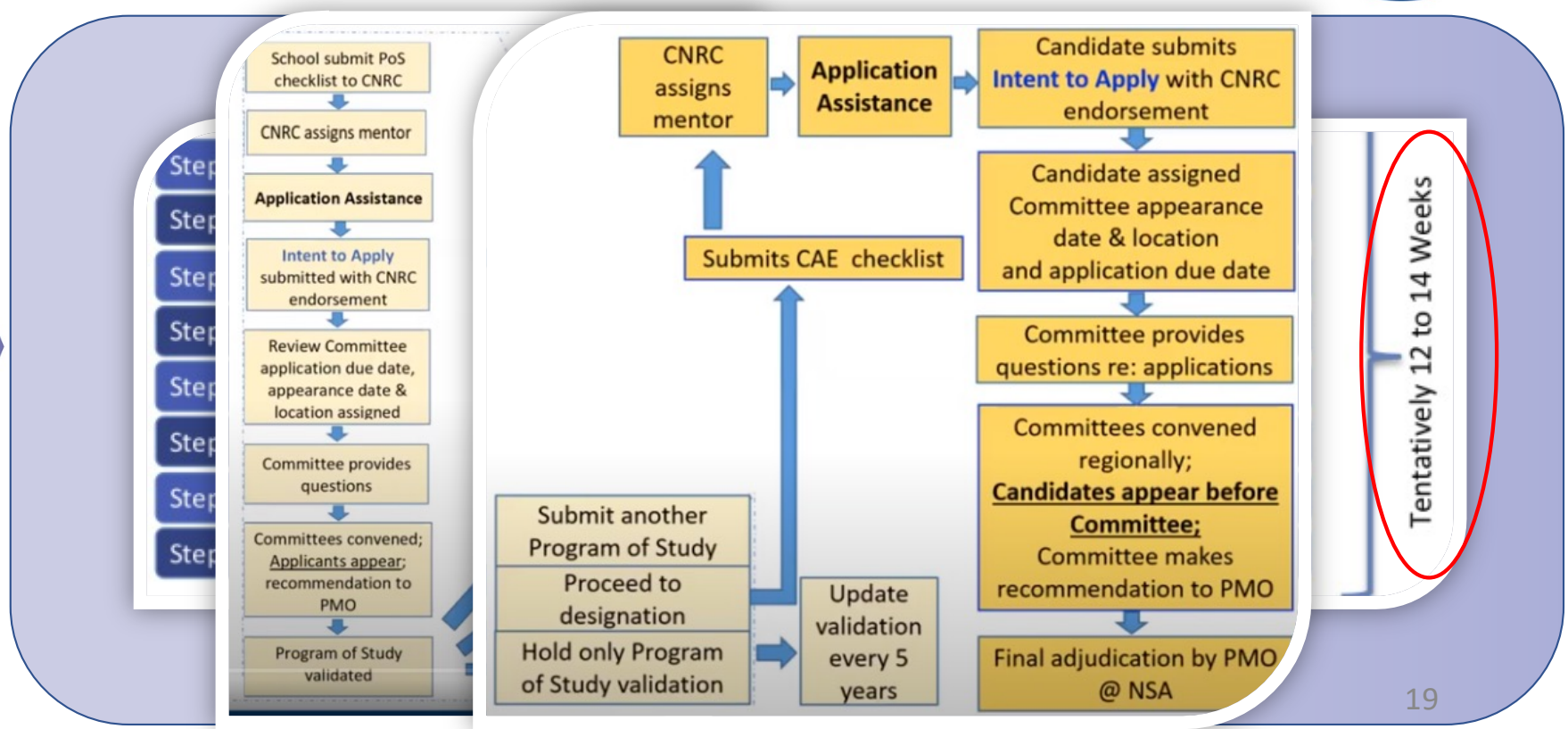
New CAE-C POC Onboarding Process

Application Process

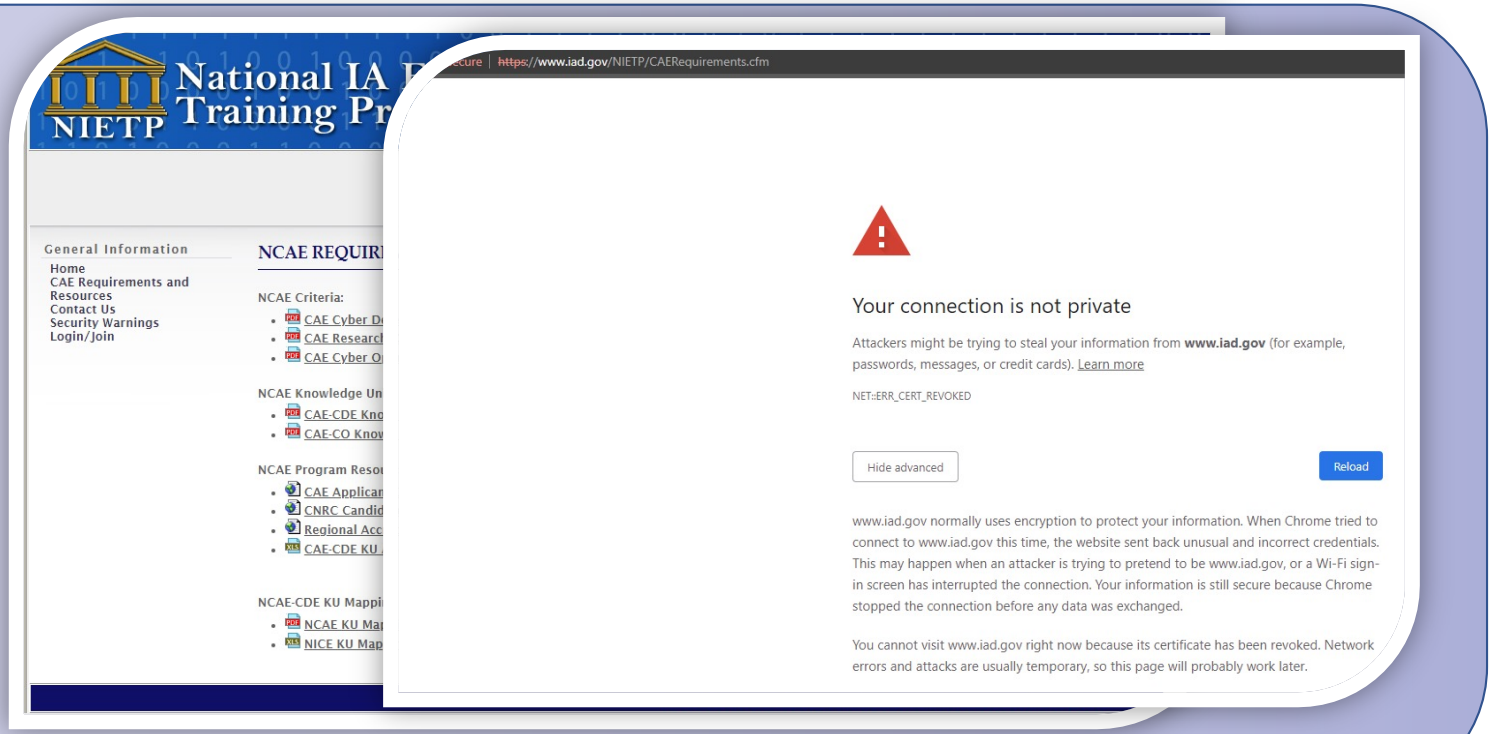


New CAE-C POC Onboarding Process

Application Submission (OLD) Tool

https://www.iad.gov/NIETP/CAERequirements.cfm

New CAE-C POC Onboarding Process
Application Submission (OLD) Tool



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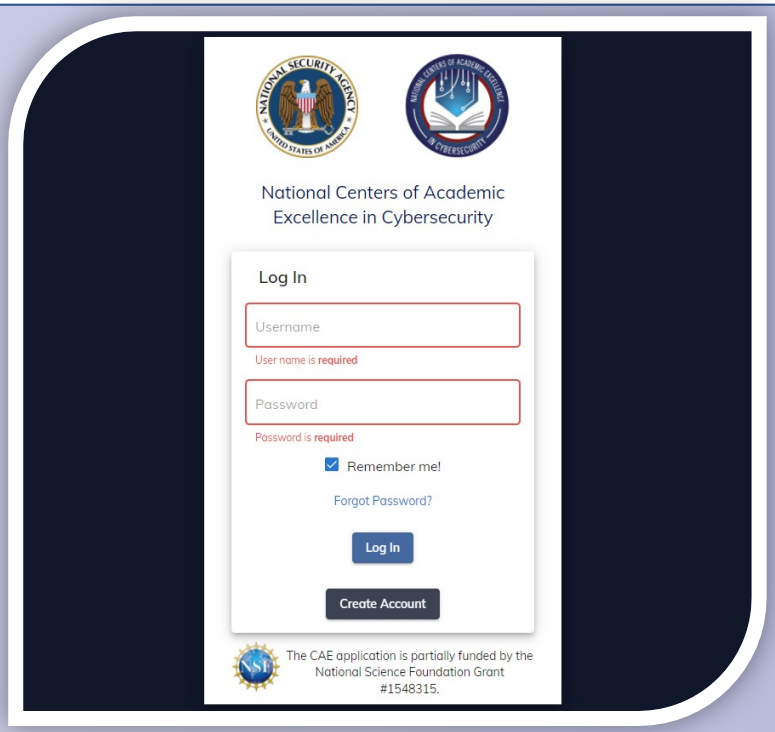
New CAE-C POC Onboarding Process

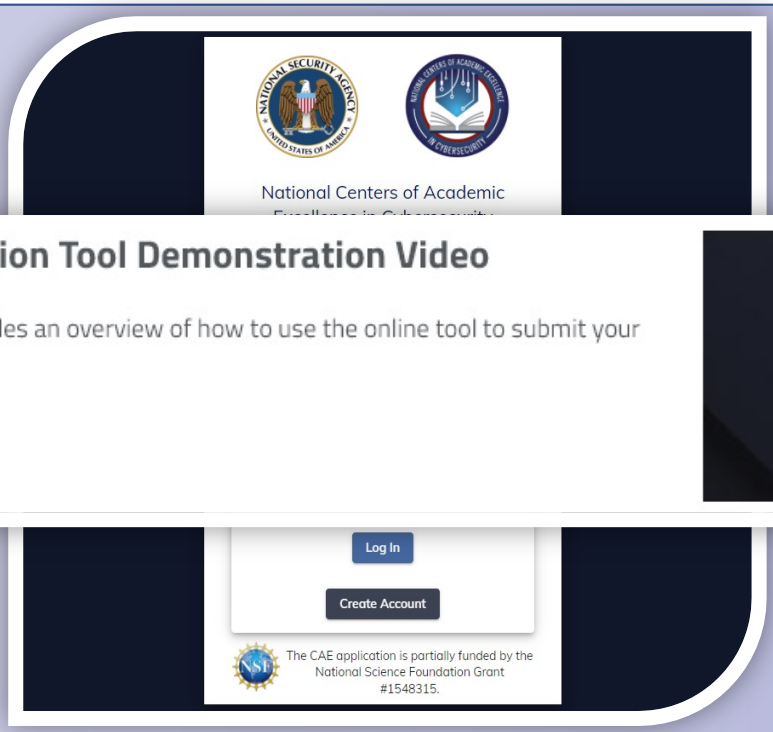
Application Submission (NEW) Tool

https://www.youtube.com/watch?v=s9DU1sTRUNA&t=2s



https://nsa-ncae.com/login

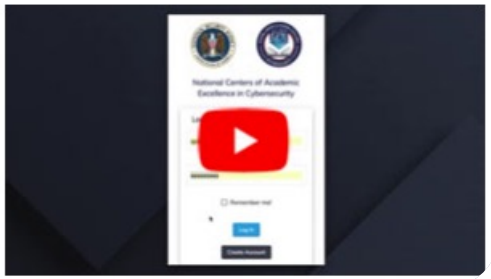
New CAE-C POC Onboarding Process
Application Submission (NEW) Tool



CAE Application Submission Tool Demonstration Video

This 7-minute, 30-second video provides an overview of how to use the online tool to submit your application.

Watch Video



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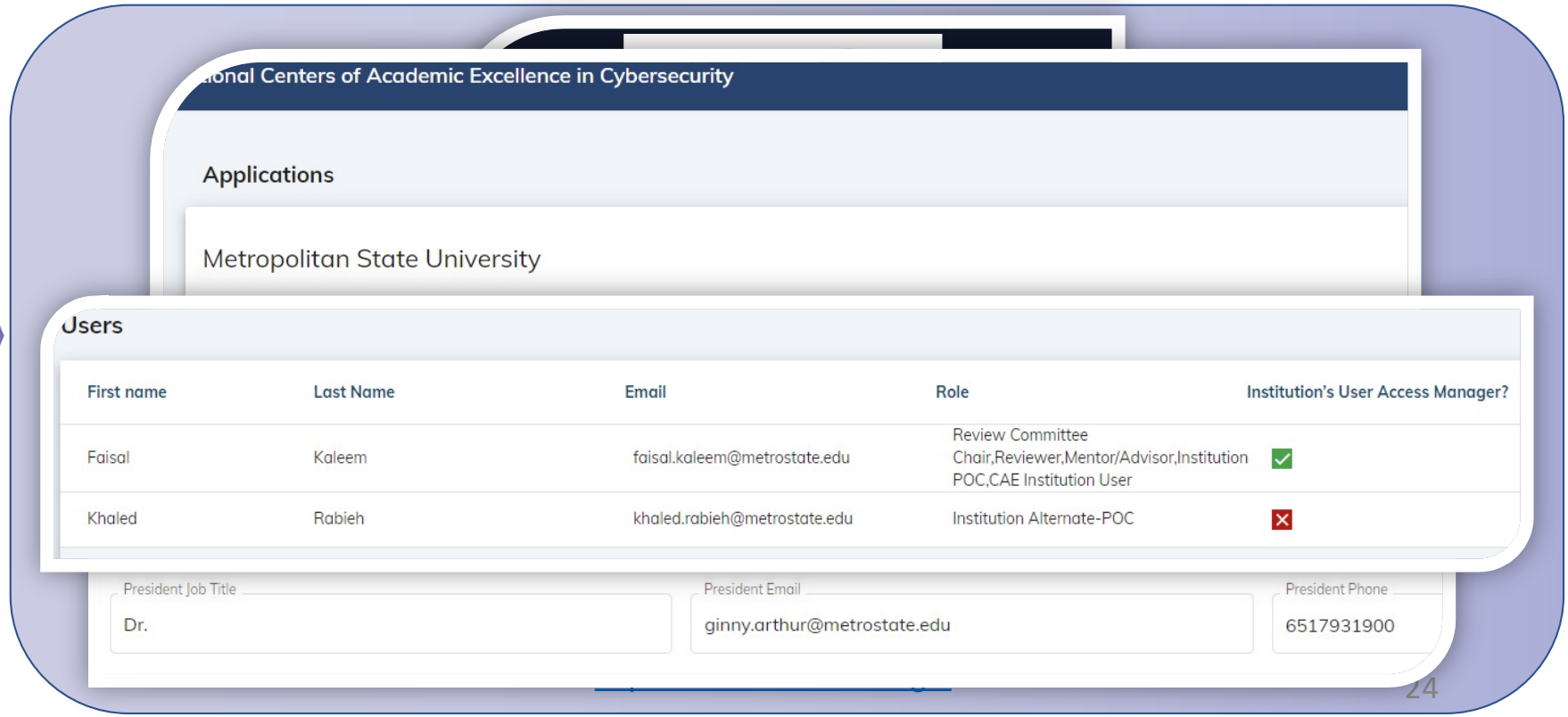
New CAE-C POC Onboarding Process

Application Submission (NEW) Tool



New CAE-C POC Onboarding Process
PoS Validation Requirements

1. PoS Curriculum

a) The Cybersecurity PoS Offered by the Institution
b) NICE Framework Crosswalk Alignment
c) Courses Syllabi and Courses Requiring Applied Lab Exercises (For KU Aligned Courses Only)
d) Curriculum Map and Plan with Assessment Documentation
e) Knowledge Units (KUs) Alignment (See Appx. 3)
f) Graduate Thesis/Dissertation/Equivalent Guidelines and Process (Masters and Doctoral programs only)

2. Students

a) Student enrollment/graduation in the PoS(s)
b) CAE-CD: Sample student certificate/notation on transcript/official letter
c) Students work products (papers, assignments, labs, etc.)
d) Students participation in extracurricular activities

3. Faculty Members

a) Cyber Program(s) of Study PoC
b) Full-time, part-time, and adjunct faculty members + Faculty qualifications (publications, research, industry involvement, certifications, etc.) related to PoS type
c) Faculty support of enrolled students
d) Process of Faculty Promotion/Reappointment (e.g. Faculty Policy Manual)

4. Continuous Improvement

a) Continuous Improvement plan
b) Continuous Improvement process
c) Regular evaluation schedule

New CAE-C POC Onboarding Process

CAE Designation Requirements

1. Accreditation
2. Institution Commitment (letter of intent and endorsement)
3. Evidences of Sound Cybersecurity Posture and Plan
4. Established “Center” for Cybersecurity
5. Affirmation of the CAE Core Values and Guiding Principles
6. Sustainability
7. Professional Development
8. Cybersecurity Academic Integration
9. Outreach
10. Transfer of Credit/Articulation Agreements

New CAE-C POC Onboarding Process

Post Designation Requirements

1. Annual Report of Institutional Metrics
2. Maintain Correct Contact Information
3. Major Changes to Designated Program of Study(ies) (PoSs)
4. Continuous Improvement Plan and Process
5. Participation in various CAE activities
6. Attending the annual CAE Community Symposium and/or the annual PoC meeting, and/or regional CAE community meetings

New CAE-C POC Onboarding Process

Recommended Actions to keep the designation

- Focus on Continuous Improvement
- Regularly conduct the program's advisory board meetings and maintain minutes
- Integrate cybersecurity contents into programs other than PoS
- Outreach to other institutions and help them with their cyber needs
- Invest in cyber competitions
- Play an active role in CAE community

https://www.caecommunity.org/events/calendar

New CAE-C POC Onboarding Process

Recommended Actions to keep the designation

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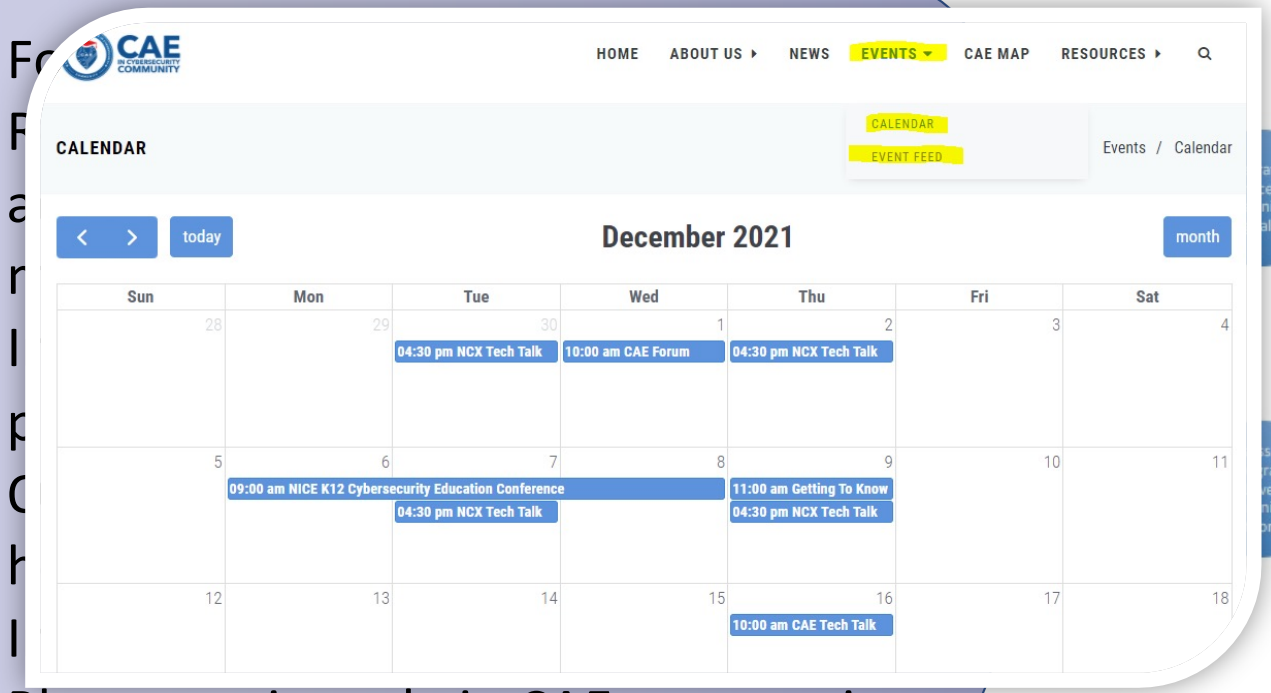
- Play an active role in CAE community



https://www.caecommunity.org/events/calendar

New CAE-C POC Onboarding Process

Useful Suggestions

- Make sure that you are aware of and have access to the following items: Institution's accreditation reports, IT Security plans, Awareness trainings
- Become friends with the institution's accreditation officer, CIO, CISO
- Established Center for Cybersecurity must have all the required and up to date contents and must be hosted as part of the institution's domain
- Engage with your respective regional hub https://www.caecommunity.org/about-us/cae-regional-hubs

New CAE-C POC Onboarding Process
Useful Suggestions

- Make sure that you are aware of and have access to the
  - The "Center" Website (URL) is visible within the institution and the external community at large
  - "Center" POC is noted
  - Information about and link to the program page of the Validated PoS(s)
  - Faculty members
  - Links to student cybersecurity activities available to students at the institution and beyond
  - News that include both internal and external cybersecurity news. Internal news should highlight cybersecurity activities and efforts at the institution and/or other cybersecurity activities of students and faculty representing the institution. External cybersecurity news should highlight up-to-date trending cybersecurity information
  - Link to the institutional security resources and awareness
  - Up-to-date links to key cybersecurity resources for students such as cyber competitions
  - Documentation on the Industry Advisory Board/Committee

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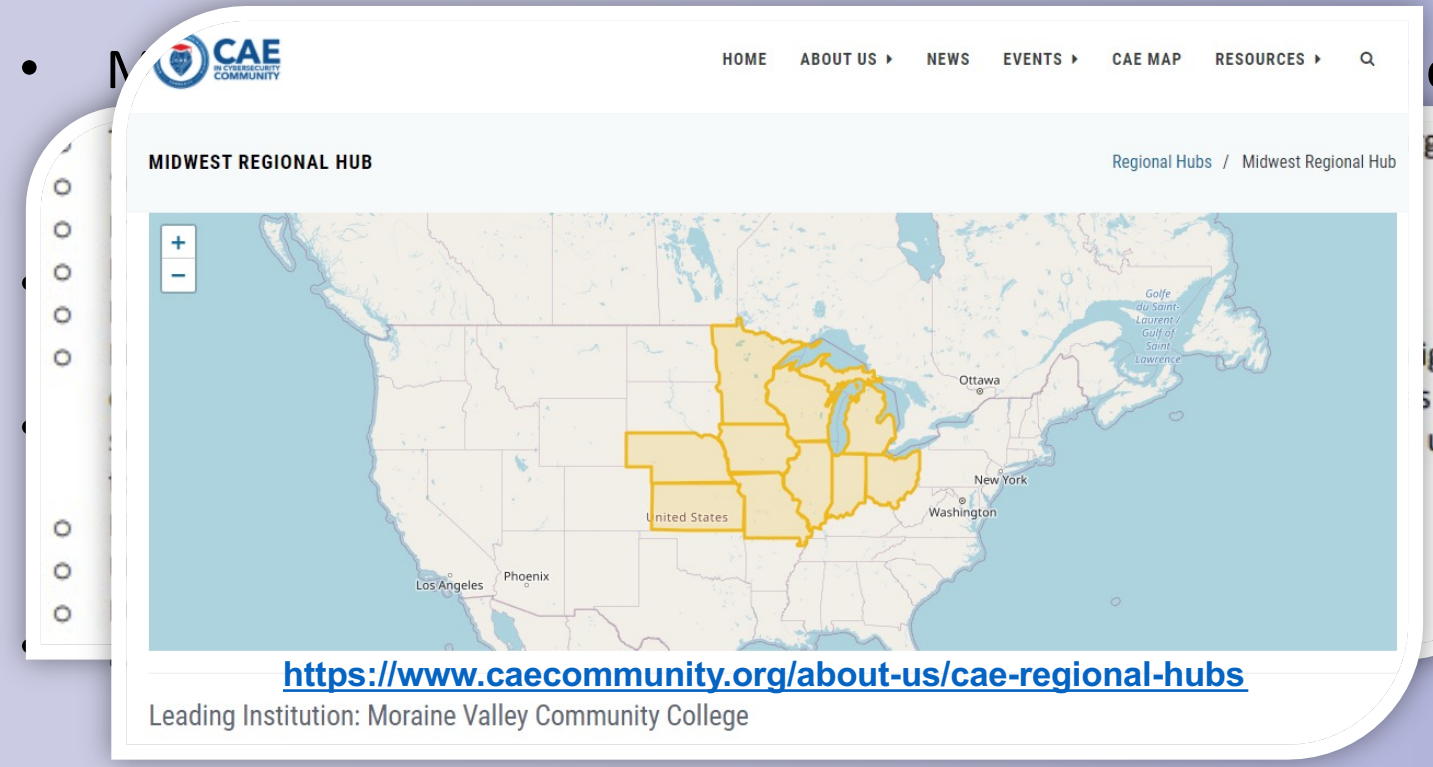
Engage with your respective regional hub https://www.caecommunity.org/about-us/cae-regional-hubs

New CAE-C POC Onboarding Process

Useful Suggestions



New CAE-C POC Onboarding Process

Presenter: ***Eric Berkowitz***
College of Lake County

New CAE-C POC Onboarding Process
Collaboration with other Schools

- **Four Year Schools**
  - **Research projects, joint funding proposal, grant proposals**
  - **Publishing in peer reviewed journals, sitting on committees in each others institutions**
- **Two year Schools**
  - **Curricular development**
  - **Resource development**
- **Both**
  - **Joint job fairs**
  - **Jointly hosted conferences**
- ***It does not always have to be large, you may be working together already***

New CAE-C POC Onboarding Process

Attend …

- Annual CAE Symposia
  - Meet peers outside of your regional “bubble”
  - Meet cyber persons outside of your professional “bubble”
- CAE Principals Annual Meetings
  - Find out opportunities
  - Find out changes in the changes in the program
- It’s a Community
  - People should know you and your name
  - Learn about opportunities

New CAE-C POC Onboarding Process
Tech Talks & Forums

CAE Tech Talks are recorded: https://www.caecommunity.org/resources/cae-tech-talk-resources
For questions on CAE Tech Talk, please send email to CAETechTalk@nsa.gov

- **Attend a few**
- **See how they are done**
- **Find something you are currently working on and have common interest**
- **Be relaxed, prepared, and deliver one alone or with a co-presenter**

New CAE-C POC Onboarding Process

Career Fairs

- Your school probably has an office that will help
- It probably does not specialize in tech
- Start with employers that have hired your graduates and trust your program
- Invite hiring managers and external team leaders to prep your students
- Win-Win is the only way to Win

New CAE-C POC Onboarding Process

Presenter: ***Anthony Pinto***
University of West Florida

New CAE-C POC Onboarding Process

Become a Reviewer and/or Mentor

- **ENMU-Ruidoso is the CAE Peer Review National Center**
  - **works with the NCAE-C Program Management Office to train reviewers and execute peer reviews of applications for Academic Endorsement and/or NCAE-C Designation.**
  - **Peer Reviewers - review CAE-CD application for compliance with the CAE-CD Standards**
- **Whatcom College manage designated institutions to apply for designation or re-designation.**
- **CAE Mentor program managed by Whatcom College**
  - **CAE Mentors are assigned to schools in the Application Assistance Phase.**
  - **The mentor assists the school in completing the application.**
  - **The National Cybersecurity Training and Education Center (NCyTE) at Whatcom Community College (WCC) manages the program**
  - **https://www.ncyte.net/resources/cae-designation-resources**

New CAE-C POC Onboarding Process

Engage with the Regional Hubs and the CAE Community

- **A requirement for any CAE School is continued engagement with other CAE Schools.**
- **Each Regional Hubs has regular meetings, and activities that each schools is expected to participate in.**
- **https://www.caecommunity.org/about-us/cae-regional-hubs**
- **In addition the CAE Community Website for current events including workshop and national events https://www.caecommunity.org/events/calendar**
- **The NCyTE also holds workshop and involvement opportunities**

New CAE-C POC Onboarding Process
Cyber Competitions

- **Global Collegiate Penetration Testing Competition**
  - **Focuses on mimicking the activities performed during a real-world penetration testing engagement**
  - **It is conducted by companies, professional services firms, and internal security departments around the world.**
- **The NICE Challenge Project**
  - **develops real-world cybersecurity challenges within virtualized business environments**
  - **provides the most realistic experiences to students, at-scale year-round**
  - **generates useful assessment data about their knowledge, skills, and abilities for educators.**

New CAE-C POC Onboarding Process

Grants and Scholarship Opportunities

- As a CAE Designated Schools your institution will be able to apply for multiple grants as funding allows. Funding is not guaranteed.
- Most grant announcements will come via an email from the CAE Program office.
- Scholarship Opportunities include
  - NSF Scholarship For Service (SFS)
    - Provides scholarships for up to 3 years for cybersecurity undergraduate and graduate (MS or PhD) education.
    - Recipients must agree to work after graduation for the U.S. Government.

New CAE-C POC Onboarding Process

Grants and Scholarship Opportunities

- **DoD Cyber Scholarship Program**
  - **Provides scholarships for students in Cyber Programs**
  - **Students are required to work for the DoD a minimum of one year for each year of scholarship support they receive.**
- **Web Sites**
  - **CAE Community https://www.caecommunity.org/**
  - **NCyTE Center https://www.ncyte.net/**
  - **NSF Scholarship for Service https://www.sfs.opm.gov/**
  - **DoD Cyber Scholarship https://public.cyber.mil/dcysp/**

New CAE-C POC Onboarding Process

Presenter: ***Anne Kohnke***
University of Detroit Mercy

New CAE-C POC Onboarding Process

Resource Links

- **CLARK—Cyber Lab Resource Knowledge** https://clark.center/home
- **CARD—Cyber Education Resource Directory** https://www.caeresource.directory/home
- **CSSIA, Moraine Valley's Center** https://www.cssia.org/
  - **E-Mate Interactives** https://www.cssia.org/interactives/
- **National Center of Academic Excellence in Cybersecurity:** https://public.cyber.mil/ncae-c/
- **DoD Cyber Scholarship** https://public.cyber.mil/dcysp/
- **GenCyber, National K-12** https://www.gen-cyber.com/
- **NICE Challenge Project Webportal** https://nice-challenge.com/
- **NICE Framework Resource Center** https://www.nist.gov/itl/applied-cybersecurity/nice/nice-framework-resource-center
- **NSF Scholarship for Service** https://www.sfs.opm.gov/
- **National Cyber League** https://nationalcyberleague.org/
- **NCyTE Center Workshops** https://www.ncyte.net/resources/cybersecurity-education-workshops

New CAE-C POC Onboarding Process

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