

NCAE-C Cybersecurity Credit



Transfer Agreement Development

Task 2.1.8

Task: 2.1.8.1 (CTA Info + Development)

Task PI: Michael Tu

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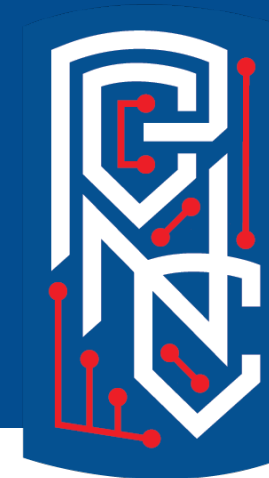
PNW Team:

Michael Sbalchiero, Amber Schuler

Task: 2.1.8.2 (CTA Database)

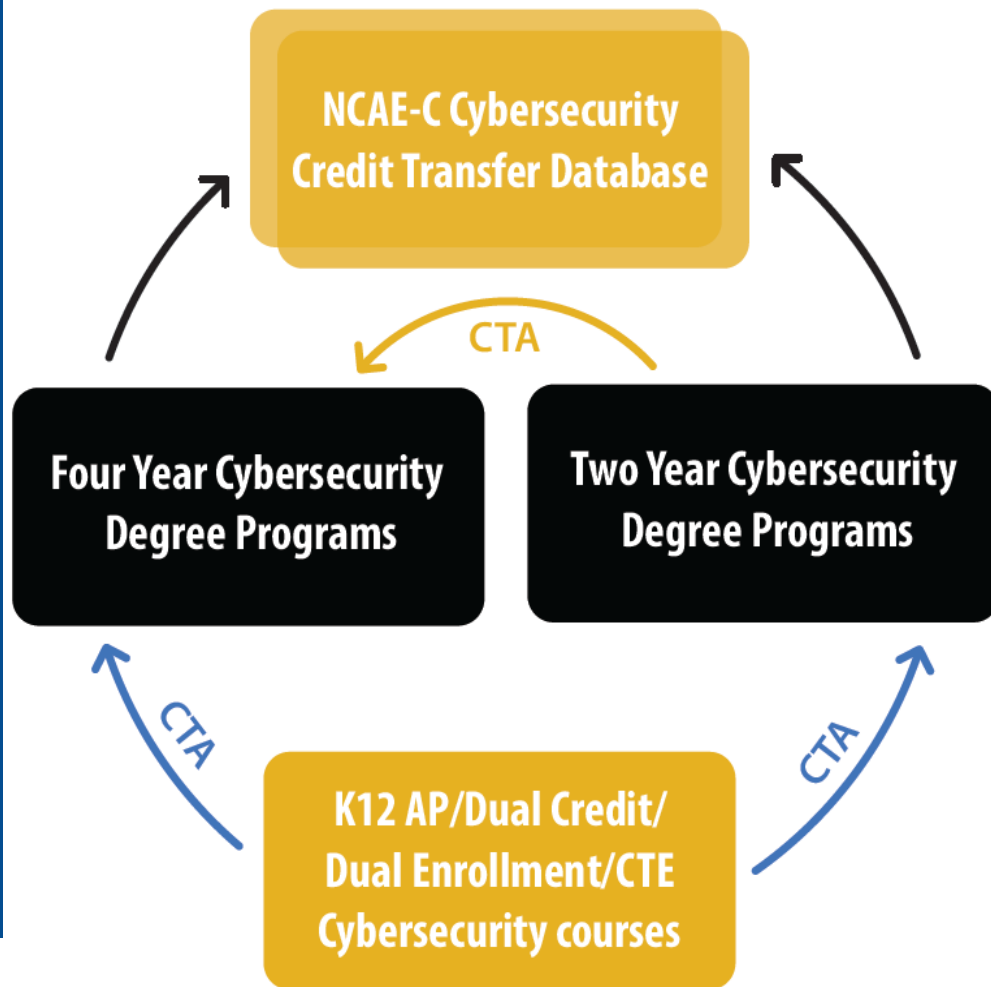
Task PI: Thomas Brown

Forsyth Technical Community College



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NCAE-C Cybersecurity Credit Transfer Agreements (CTA) Tasks



Task 1

Compile an initial set of cybersecurity CTAs

- K12 schools and CAE institutions
Initial deadline: May 2023.
- 2-Year to 4-Year CAE programs

Task 2

Facilitate cybersecurity CTA development

- K12 schools and CAE institutions (CAEs).
- Identify CAE schools with interests
 - establish independent contracts with 20 CAEs
- Virtual mentoring workshops
- One-on-one mentoring

Task 3

- Establish a database of the of the CTA

NCAE-C Cybersecurity CTA Task Challenges & Opportunism



Benefit to The CAE Community and Beyond

- Building the cybersecurity workforce pipeline
- Increase the enrollment of CAE cybersecurity programs

Challenges

- More efforts Needed for Cybersecurity CTA development, Esp. K-12
- K-12 Cybersecurity Education Obstacles
 - Policy, instructor resources, cyber infrastructure, curriculum

Opportunities

- NCAE-C Efforts
 - CPNC, EPNC, K-12 Teacher training
 - CTA Taskforce, EPIs, RING, National Cybersecurity Teaching Academy (DePaul, UA Little Rock, U Louisville), Cybersecurity High School Innovation (City U of Seattle)
- GenCyber Programs – inspire interests and prepare teachers
- State Government and Local efforts
 - K-12 committee, Workforce committee

NCAE-C Cybersecurity CTA Task Approaches & Timeline



CTA Status Survey

- February 2023 Distribute survey
- March-April **Promoting Survey Response**
- April-May: Follow ups from CTA Team
- May 2023 Compile an initial set of K12 CTAs; create and share initial database

New CTA development

- March 2023 Develop CTA workshop
- July/Aug 2023 launch first CTA workshop
- September 2023 Identify and engage CAE Institutions for CTA Development

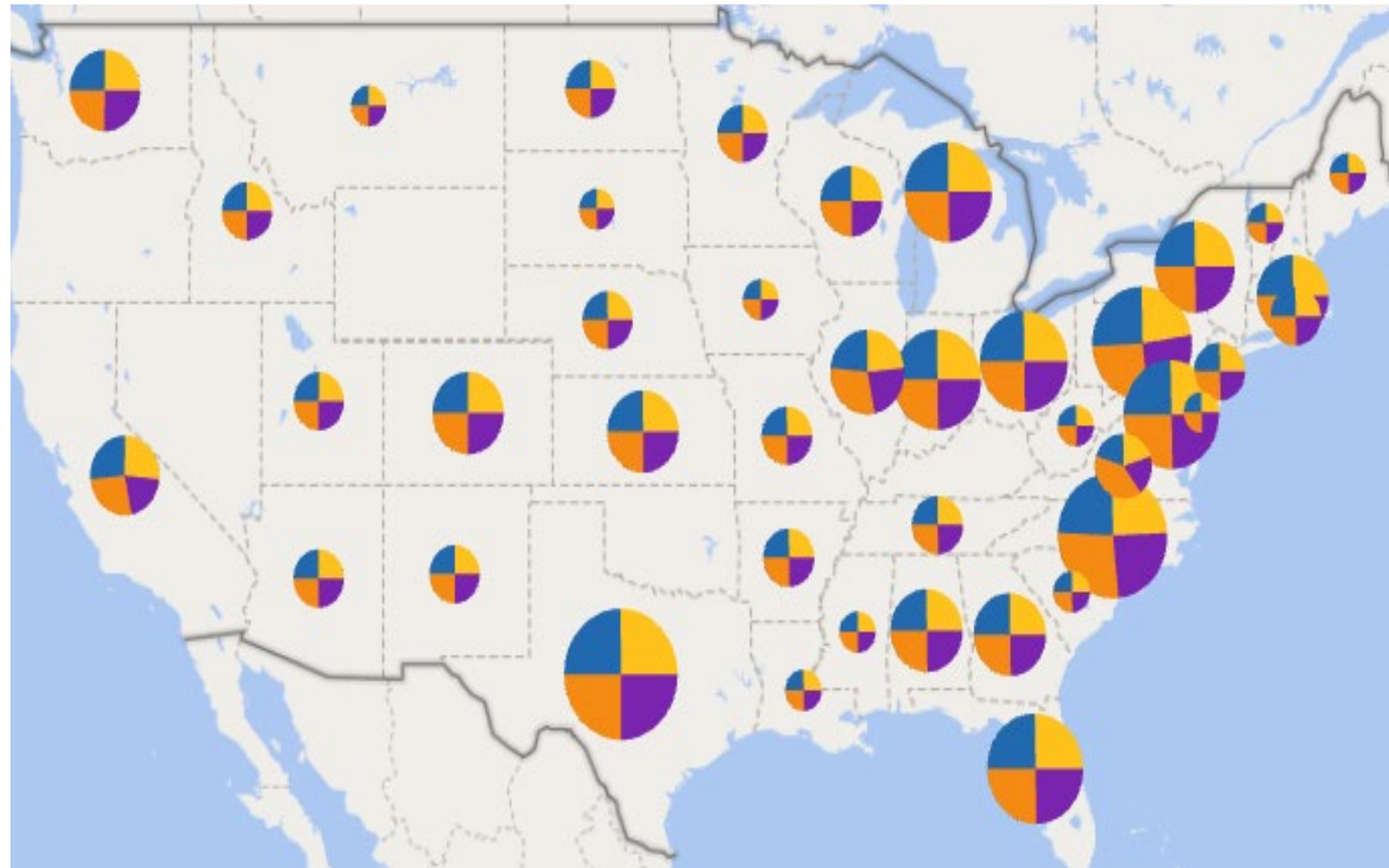
The Results of NCAE-C Cybersecurity CTA

Status Info Collection (May 10th)



Overall Response by Region –

CAE Region	Institution Totals
Midwest	51
Northeast	42
Northwest	16
Southeast	30
Southwest	25
Grand Total	164



151/164 responded to K-12 CTA

AP: 19, DCE: 50, CTE: 20,

Others (early college, DCE, credits, adv standing): 10

Unsure: 52.

Call for CTA Survey Participation, CAE Community!



Please take the survey!

SURVEY LINK: <https://short.forsythtech.edu/CTA>



WHAT DO YOU NEED?

1. Does your college/ university have:

- Dual credit/dual enrollment, CTE or AP cybersecurity course agreements with local high schools?
- 2-Y to 4-Y degree cybersecurity course or articulation agreements.

2. Gather your formal/informal articulation agreements for Cybersecurity courses to your CAE Programs

- Save any documents as PDFs, you will be limited to 5 submission fields; you can combine multiple agreements into a single PDF.
- URLs to published agreements can be loaded as well.

3. Load your documents in the NCAE Cybersecurity Transfer Credit Survey:

<https://short.forsythtech.edu/CTA>

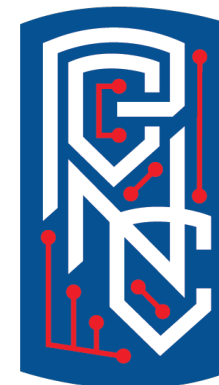


HOW THIS BENEFITS YOUR PROGRAM

Help recruiting more students into your CAE program

Create collaboration opportunities across CAE & K12 community

Contribute to NCAE-C community



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NCAE-C K12 Cybersecurity CTA Development Approaches



Call for Your Participation in NEW K12 Cybersecurity CTA Development!

- CTA between K12 schools and CAE Institutions (CAEs).
- Identify schools with interests
 - Inspiring interests
 - Application form – next slide
- Establish independent contracts (20 schools)
 - Virtual mentoring workshops
 - One-on-one mentoring
 - One on one Follow ups

The Advantages and Limitations of NCAE-C Cybersecurity CTAs



WHAT ARE AP COURSES?

Advanced Placement (AP) courses are college courses that are designed for high school students. AP courses teach college material and have a standardized exam at the end. Exams may be used for college credit based upon criteria set forth by the college or university. More information about Advanced Placement courses can be found at the College Board website.

WHAT IS DUAL CREDIT?

Dual Credit or Dual Enrollment allows high school students to be enrolled in high school and college or university classes. Courses may be taught at either school and earn credits towards their high school diploma and college or university credits. Dual Enrollment programs are implemented on a state-by-state basis. More information about Dual Enrollment programs can be found on the US Department of Education website, or by searching your state's Department of Education website.

WHAT IS CTE?

Career and Technical Education (CTE) allows high school students to learn technical and employability skills while they earn a high school degree. It allows students the ability to connect their training with post-secondary education or more advanced technical training. Implementation varies by state, but general information about CTE programs can be found at the US Department of Education.

AP

- Teach college material with a standardized exam
- May be used for college credit based on criteria
- College Board defined – AP: CS with cybersecurity topics
 - NCyTE Center effort, any other?

DCE/Concurrent Enrollment

- Enroll in high school or college classes
- Earn credits for both college credits and HS diploma
- State by State policies – instructor credentials
 - MS degree or BS degree+18 credits in the field

CTE

- Enroll in high school, Career centers, or college classes
- Learn employable skills + credits for HS diploma
- State by State policies
- Generally less strict on instructor credentials

Cybersecurity CTA Development at PNW & DSU



DSU Governor's Cyber Academy Initiative

- Opportunities to earn dual credits
 - Offer cyber coursework and credit-bearing summer enrichment opportunities
 - Complete all coursework will simultaneously complete the 1st year for a BS degree
 - CS, Cybersecurity, Cyber Operations, AI, Cyber Leadership
 - Students are supported through mentoring, tutoring, and advising

PNW's PassportPNW Initiative

- Cybersecurity program is part of it
- Similar to DSU's Cyber Academy Initiative

PNW's CTA Efforts

- **2Y-4Y CTA**
 - Formal articulation agreement with Ivy Tech, AS Cybersecurity to BS Cybersecurity (**NEW!**)
 - Course mapping with others such as MVCC
- **K-12 CTA**
 - Offering ITS19900 as dual credits, supported by Lilly Foundations
 - To offer of ITS19900/ITS15000 as DCE, as part of pending VICEROY grant efforts

Attention: New K-12 Cybersecurity CTA Development



Please let us know your interest!

Apply Here: <https://short.forsythtech.edu/CTAK12>

K-12 CTA
DEVELOPMENT
WORKSHOP

CAE schools who participate in the workshop and develop a new K-12 CTA can qualify for \$1000 stipend through the grant.



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NCAE-C CTA Database Creation Status

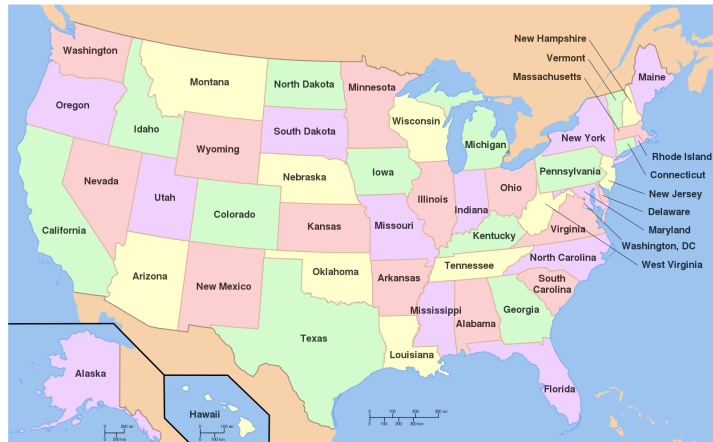


- Schools have been updated with institution information, Cybersecurity Centers or Programs of Study
 - 451 Schools as of January 2023
- Working with Purdue NW and Dakota State University for the format of Articulation Agreements Based on Initial Surveys
- Working with <https://caecommunity.org> for a public facing directory as a part of the RING Project
- Articulation agreements will be added later as a Hyperlink to institutional pages
 - Categories
 - 2Y-4Y CTAs
 - K-12 CTAs

NCAE-C CTA Database Creation Status



Click on your state of interest to learn more information:



This website was created to aid in the development and establishment of a National K-12 Pipeline for CAE-C designated institutions. Contact [Tony Brown](#) or [Stanley Kostka](#) with website questions.

CAE/Ring Project: K-12 Directory Home Choose Your State



CAE

IN CYBERSECURITY
COMMUNITY



This site has been created to aid high school students, parents and counselors nation wide in obtaining information on CAE institutions in their area and view information on articulation agreements and/or College and Career Pathways in [Cybersecurity](#). Since you are a Center for Academic Excellence you can participate in this national database. Let's Get Started!

Choose your State

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Forsyth Tech
COMMUNITY COLLEGE