NCYTE CENTER
National Cybersecurity Training & Education Center

Advancing cybersecurity education for tomorrow's workforce.

March Meeting –
CyAD: Teaching Cybersecurity Across Disciplines

Host
Stephen Miller
Professor and Director Cybersecurity Center of Excellence
Eastern New Mexico University – Ruidoso
Co-PI National Cybersecurity Training & Education Center

Welcome!

- Introduce yourself in the chat.

- Keep your microphone on mute when the presentation begins.

- Use chat to ask questions.

- More time for questions at the end of the presentation.

- Today's recording will be posted on NCyTE.net.

The NCYTE Center Presents

Autonomous Systems & Drones

Zack Nicklin
Unmanned Aerial Systems Program Manager, Northland Aerospace
Co-Principal Investigator, National Center for Autonomous Technologies (NCAT)
Northland Community and Technical College

Apr
21

9:00 AM
PACIFIC TIME

The NCYTE Center Presents

May 19

9:00 AM
PACIFIC TIME

Cybersecurity Apprenticeship Panel

Dr. Costis Toregas
Director
Cyber Security and Privacy Research Institute
The George Washington University

Welcome New NCyTE Members!

- Enterprise State Community College - AL
- Jemison High School – AL
- Huntsville High School – AL
- Academy for Academics & Arts – AL
- Hampton Cove Middle School – AL
- Western Governors University - UT
- South Puget Sound Community College – WA
- Mountwest Community & Technical College – WV

NCyTE by the numbers...
- 414 member institutions
- 45 states & one US territory
- 7,500+ individual contacts

NCYTE CENTER
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SERVICE FINDER

STUDENTS   FACULTY   INSTITUTIONS   INDUSTRY   MEMBERSHIP   ABOUT NCyTE   I WANT TO...

MEMBERSHIP

Membership Information

Membership Applications

NCyTE Member Map

Monthly Membership Meetings

Welcome to NCyTE!

Advancing cybersecurity education for tomorrow's workforce.
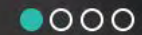
Membership benefits!

- Free curriculum resources

- Conference and Workshop opportunities for professional development

- Cybersecurity Centers of Academic Excellence (CAE) support

- Student opportunities to participate in competitions

- Access to a growing cybersecurity network!

Apply at www.ncyte.net
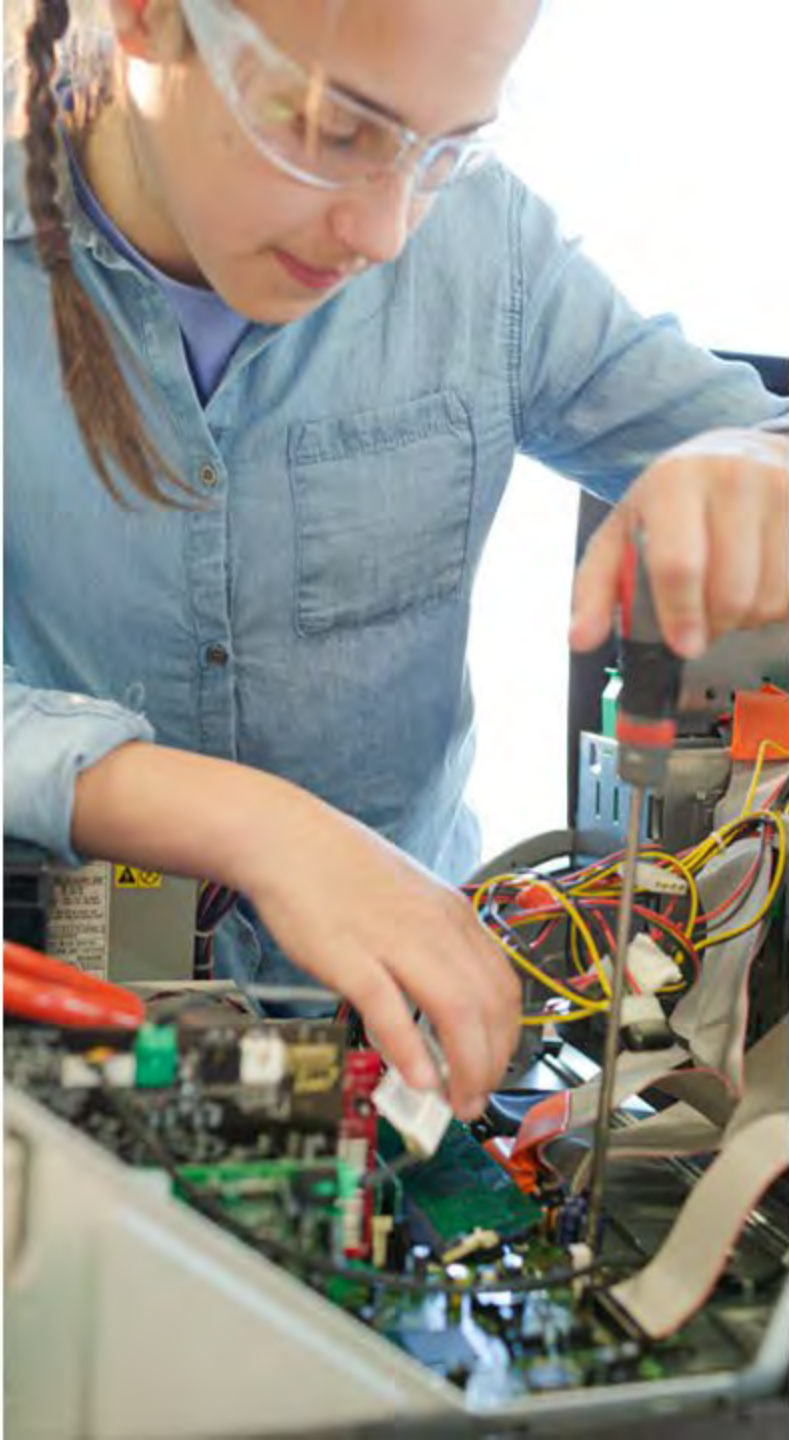
What is CYAD

- CyAD = **Cy**bersecurity **A**cross **D**isciplines

- **Goal:** Expand cybersecurity awareness and knowledge across other STEM disciplines at community/technical colleges

  - Help cyber faculty understand discipline-specific cybersecurity needs

Who Should Attend?

- **Target audience**: Community/technical college faculty from other ATE disciplines as well as current cybersecurity faculty are encouraged to attend this event

- Ideally, have an annual event that would include all ATE Centers

  - Exchange information between ATE Centers about discipline-specific cyber needs

CyAD Topics – August 1, 2023

Morning

- Provide basic introduction to cybersecurity training for ATE Center community college faculty in other disciplines

- Workshop for cyber faculty (topic TBD)

Afternoon

- Multidisciplinary workshops will review critical aspects of cybersecurity applied to:
    - Manufacturing/Automation
    - Critical Infrastructure
    - Business
    - Healthcare & Life Sciences
    - Automotive/Autonomous Systems

Multidisciplinary Workshops

Basic Cybersecurity (All Disciplines)	Manufacturing Cybersecurity
This is a workshop for community/technical college faculty in other disciplines to provide a basic understanding of cybersecurity as it relates to technical education.	This workshop is **for Cyber, Manufacturing and Automation program faculty**. The workshop will review critical aspects of cybersecurity in manufacturing and automation operations.
Major Topics • Cybersecurity Principles	**Major Topics** • Cyber Threats and Attack Vectors • Securing communication protocols • Protocol Analysis • PLC, Smart Sensors, Smart Actuators, IoT, End Devices • Wireless Technologies • Scaling cybersecurity across the entire digital terrain • Aligning cybersecurity frameworks and best practices

Multidisciplinary Workshops

Critical Infrastructure Security	Cybersecurity for Business Teachers
This workshop is for **Cyber faculty and faculty teaching programs related to Critical Infrastructure** (HVAC, water filtration, power distribution, energy, transportation, logistics, emergency services, first responders and disaster planning and recovery). The workshop will review critical aspects of cybersecurity related to critical infrastructure.	This workshop is **for Cyber and Business program faculty**. The workshop will introduce risk management as part of business operations. The focus of the workshop is business information systems management and security.
Major Topics • Cyber Threats and Attack Vectors • Securing Video and Audio Systems VoIP • Securing HVAC • Securing Transportation/Logistics • Securing Energy Systems and Production • Securing Roads and Traffic Control • Securing Water Systems/Sewage Treatment • Police and First Responders	**Major Topics** • Business Operations and Cybersecurity • Cyber Threats and Attack Vectors • Enterprise Security • Secure Communications • Cloud Security • Risk Management • Auditing and Compliance • Organizational Governance

Multidisciplinary Workshops

Cybersecurity for Healthcare and Life Sciences	Automotive Security for Auto Shop Teachers
This workshop is for **Cyber and Healthcare and Life Sciences program faculty**. The workshop examines modern information and information systems management in a healthcare environment. Topics will include law and legal requirements, industry compliance, process and practices when working with health patience records and treatment information.	This workshop is for **Cyber and Automotive Technology program faculty**. The workshop examines modern automation and security threats to semi-autonomous vehicles and the security risk and vulnerabilities inherit in many of the technologies built into modern vehicles.

Major Topics
- Security for Healthcare Providers and Life Sciences
- HIPAA Security Risk Analysis
- Risk Management
- Secure System Design and Development
- System Testing and Operating Secure Systems
- HIPAA Risk Compliance
- Enterprise Cybersecurity Risk Management in Healthcare
- Wireless and Mobile Security
- Secure Communications, Devices, and Protocols

Major Topics
- Automobile Security and Vulnerabilities
- Wireless, Bluetooth and Mobile Communication
- Secure Communications, Devices, and Protocols
- Dual-band Wi-Fi/GPS/Global Navigation Satellite System
- 4G/5G cellular connectivity
- Cameras/Onboard diagnostics/Remote keyless entry and ignition
- Subscription-based communications
- Vehicle to everything (V2X)
- Autonomous Navigation/Light detection and radar

CyAD Topics – August 2, 2023

- Schedule topics and speakers that come in through a call for proposals

- Create customized training, case studies/ scenarios, or focused work groups around each discipline

- Bring in demonstrations of resources and tools

- Wrap up everything learned from first day

Conference agenda is currently under development and subject to change

How Do I Attend?

- Link to be notified when registration opens:
bit.ly/CyAD_notify

- Registration fee

  - One free registration per institution

  - One additional registrant is $250

- Travel stipend to eligible faculty traveling from outside the event area (> 60 miles)

  - Ranging from $250 to $1,500

  - Must complete a Travel Support Agreement

Other Cybersecurity Across Disciplines workshops

Faculty Development for Manufacturing/Automation

- With Florida Advanced Technological Center (FLATE)
  January 5-6, 2023 held at College of Central Florida, Ocala, FL

Automotive Security and Car Hacking

- With National Center for Autonomous Technologies (NCAT) and
  Center of Advanced Automotive Technology (CAAT)
  May 8, 2023 at the Xponential Conference, Denver, CO

  Registration link: bit.ly/AutoSecurity

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Visit "bit.ly/ncyte-insights"

Corrinne Sande,
Principal Investigator/Executive Director,
NCyTE and CAE Candidates National Center
(CCNC)
Whatcom Community College
CSande@whatcom.edu

Thank you for attending today's meeting!

Let us know how we are doing.

Survey responses are anonymous and collected by our external evaluator.

https://bit.ly/NCyTE_Survey