UNCW's Cybersecurity Workforce Development in Southeast NC

Ulku Clark & Geoff Stoker



UNIVERSITY of NORTH CAROLINA WILMINGTON

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Presenters



Ulku Clark

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Assistant Professor of Information Systems







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Agenda

- CCDE / CAE-CDE
- Cybersecurity Programs
- Workforce Development
 - CCAP, RAP, PCAP, NC-PaCE
- Events
- Other Initiatives
- Q&A





Center for Cyber Defense Education

• Established 2018

https://uncw.edu/ccde/

- Cybersecurity Advisory Board
- Mission: graduate qualified cyber defense professionals, strengthen the cybersecurity aptitude of our community
- NSA/DHS Center of Academic Excellence in Cyber Defense Education (CAE-CDE) Designation 2018-23









UNCW Cybersecurity Programs

IT Major with Cybersecurity Concentration: an interdisciplinary technical program emphasizing practical hands-on skills; some core courses focus on industry certification; students completing this path receive an NSA/DHS certificate

<u>CS Major with Security Concentration</u>: detail-oriented technical computer science program with a cybersecurity focus

Cybersecurity Minor: 18-credit hour interdisciplinary minor open to all UNCW majors

<u>MBA with Cybersecurity Specialization</u>: designed for managers interested in leading organizational cybersecurity programs

<u>Cybersecurity Major</u>: interdisciplinary cybersecurity program recently approved by the UNC Board of Governors; begins **fall 2022**; the first cybersecurity undergraduate major offered in the UNC system; some core courses focus on industry certification





CAE Program Graduates

- CAE Designated Graduates
 - Security engineer, information security analyst, network specialist, pen-tester, service delivery engineer, system support specialist



CCAP Grant

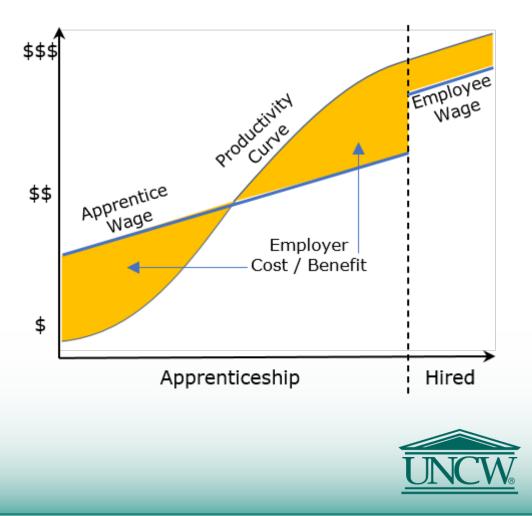
- Collaborative Cybersecurity Apprenticeship Program (CCAP)
- Support of 4-year BS Cybersecurity program
- UNCW & CFCC partnership
- Emphasize a work-based learning environment
- Merge theory into practice
- Develop cyber personnel and workforce-ready graduates
- DoD \$196K





Cybersecurity Apprenticeship

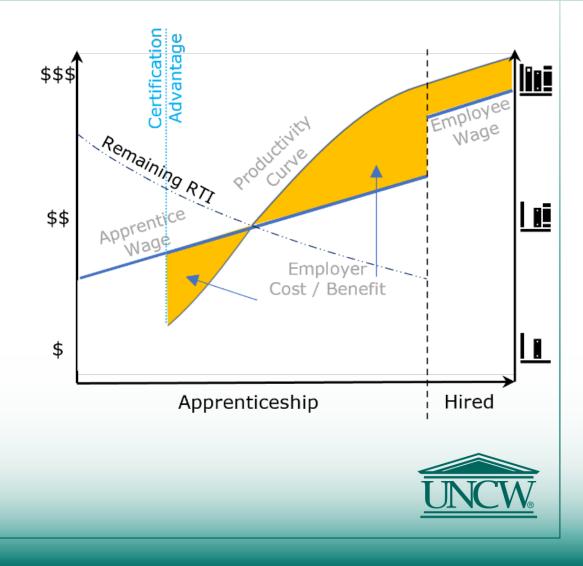
- Registered Apprenticeship Programs (RAP)
 - Related Instructional Training (RIT)
 - Related Technical Instruction(RT
 - On the Job Training (OJT)
- Registered Pre-Apprenticeship
 Program





PCAP

- Preparation for Cybersecurity Apprenticeship Program (PCAP)
- Courses -> industry certificates
 - Network+, CCNA, Security+, CyberOps, CISA, CISSP
- Donations (advisory board, partners, etc.)
- Cost-share (75%/25%)





NC-PaCE Grant

Partner Schools

• NCSU, ECU, FTCC, NCAT, PCC, UNCC, UNCW, WTCC

Methodology:

- Education: Gap Analysis and Response, **Domain Specific Offerings**, Certification Scholarships, CTFs
- Research: Community needs driven research
- Service: Practicum courses, **SOC**, apprenticeships
- Outreach: Cybersecurity symposia, communities of practice, CMMC workshops
 DoD \$2M





https://www.engr.ncsu.edu/news/2021/10/01/statewide-cybersecurity-coalition-receives-2-million-nsa-grant/

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CMMC* Webinar



March 11, 2021; ~80 attendees

Moderator: Hala Strohmier

Panelists:

- Ed Lewis, Northrop Grumman
- Ed Mattison, Center for Internet Security
- Kemal Piskin, LinQuest
- William Wetherill, UNCW





*Cybersecurity Maturity Model Certification (CMMC)

Cyber Loss Prevention Panel

COMPANY L.L.P.

EARNEY



Certified Public Accountants





Cyber Loss Prevention: **UNCW** Panel on Solutions for NC Business

With cyberattacks growing exponentially, an expert panel has been assembled to help leaders understand the risks and ensure effective controls for local and cloud computing environments. The panel will address preventing business interruption and data loss as well as take your questions during this special event on August 20 at UNCW.

SPEAKERS INCLUDE:



North Carolina's Special

Deputy Altorney General

over cybercrime



UNCW's Director of the

Center for Cyber Defense

Education



Rob Duggan

Director of

Technology Risk Advisory

Services at Earney &

Company



Michael Nauert

FBI Special Agent for

investigations







Peter McClelland Privacy, Data cybercrime and intrusion Security, and Technology Altorney at Ward and Smith

AUGUST 20

SCHEDULE: 1

UNCW'S BURNEY CENTER (PARKING IS IN LOT M)

3 - 4:30 P.M. - SPEAKERS + Q&A

4:30 - 6 P.M. - NETWORKING • BEVERAGES

William Wetherill Information Security Officer





Workshop



UNCW CCDE Workshop

Center for Cyber Defense Education University of North Carolina Wilmington

Oct 1st, 2021 2:00 PM EST

"What are **signs** of a malicious activity on your computer or in your email account?"

How to know if you've been hacked!



with Said Varlioglu

Incident Response Engineer Trend Micro



Annual Cybersecurity Awareness Conference

3rd Annual Cybersecurity Awareness Conference



Saturday Oct. 23 · VIRTUAL ONLY

Workshop – 22 Oct Conference – 23 Oct



Virtual – no cost

Keynotes:

- Antonio "T" Scurlock CISA Deputy Chief Learning Officer
- Rear Admiral (Ret) David Simpson





Annual Cybersecurity Awareness Conf (cont)

3 Panels

- Cybersecurity Threats Moderator: Hala Strohmier
- Panelists: Rob Andersson (IBM), Matthew Bohne (Honeywell), Adrianne George (MyCyberExec), Ed Lewis (NG)
- Cybersecurity Awareness Moderator: Geoff Stoker
- Panelists: Jacob Cox (ACM Cyber), Scott Lathrop (Raytheon), Rob Duggan (Earney), Jordan Pike (nCino), Brad Hayes (Project Ares)
- **Cybersecurity Compliance** Moderator: William Wetherill
- Panelists: Al Roethlisberger, Ron Lafond (CISA), Peter McClelland (Ward & Smith), Andrew Hoover (CERT)





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Other Initiatives and Partnerships

- IVLE4C New Teaching Environment
- **CEDI Minority School Initiative**
- Army JROTC Cyber program 2022-23 pilot schools selected; North Brunswick (UNCW supporting) on 2023-24 Order of Merit List
- I3C Interagency Cybersecurity Coordinating Committee (NCMBC)





Questions?

• Thank you for your time.



