

CYBER LEADER DEVELOPMENT PROGRAM HANDBOOK













Proverbs 22:29 CSB

Do you see a person skilled in his work? He will stand in the presence of kings.

This handbook is for scholars in Cedarville University's Cyber Leader Development Program.

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SEAL



SIGNIFICANCE

In the seal's center is a shield representing the protection that cybersecurity provides from malicious threats. The shield has three elements: a chess knight, a leadership torch, and a cryptographic key. The knight embodies the strategy, creativity, and versatility that all outstanding cyber leaders possess. The torch signifies a leader's ability to persist and innovate. The key characterizes cryptography, an essential when securely maneuvering in cyberspace against the adversary. The blue and red denote our leaders' expertise in both defensive and offensive cyberspace operations while the white symbolizes our pure and moral pursuit of such actions. Flanking the shield are wheat stalks reflective of the humble cornfields of Ohio and the seal of the Center for the Advancement of Cybersecurity. Along the edge of the shield are twelve binary octets encoding the program's verse Daniel 11:32.

Daniel 11:32 KJV

...but the people that do know their God shall be strong, and do exploits.

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Welcome from the Director

Cyber Leader Development Program Scholar,

Welcome to the CLDP! The CLDP creates opportunities for you to take your cyber education to the next level. First, by intentionally investing extracurricular time into going deeper into cyber topics. Second, by gaining leadership experience as you lead in helping others grow in their cyber skills. My prayer is that this program is a blessing to you, and ultimately, it is used by God in your life to advance His kingdom for His purposes. I believe that the Lord has blessed our cyber program with opportunities like the CLDP so that our students can be influences for good in the cyber domains. He is creating ambassadors for His kingdom, and as part of this program, you are stepping forward as God's man or woman. I am so grateful that the Lord has brought you to Cedarville! Remember, the people that do know their God shall be strong and do exploits! (Dan 11:32)

Your Brother in Christ,

Sot. Hom -

Dr. Seth Hamman

Program Overview

1. Executive Summary:

The Cyber Leader Development Program (CLDP) is designed to cultivate leaders in the cyber domain, equipped with both technical expertise and strategic leadership skills. As the cybersecurity arena vastly expands, there is a fundamental need for professionals who not only possess technical capability but also can effectively lead a group of individuals to accomplish a task. This program seeks to equip students with an immersive and comprehensive understanding of cyber leadership, emphasizing practical, hands-on learning experiences.

2. Vision:

To empower the next generation of cyber leaders through practical experience and strategic leadership training, enabling them to address the evolving challenges of the cybersecurity landscape.

3. Goals:

- a. Develop technical expertise
- b. Enhance leadership skills
- c. Foster mentorship and relationship building within the cyber program
- d. Facilitate career exploration / preparation
- e. Equip aspiring leaders with a portfolio and a marketable credential

4. Precedent:

Cyber leader development programs have been successfully implemented at other leading universities in cybersecurity. By adopting our own version of the program, we are aligning ourselves with best practices for developing cyber leaders while also helping to further shape cybersecurity education in the academic community.

5. Target Audience:

The CLDP is designed for the upper echelon of Cyber Operations students—motivated, disciplined, and eager to learn and grow. These students are committed to pursuing cyber opportunities beyond the classroom.

6. Program Structure:

The CLDP is a two-and-a-half-year program (junior & senior year) in which Cyber Operations Majors would complete the necessary prerequisites their freshman and sophomore year, and then apply for the program at the end of the first semester of their sophomore year.

Requirements for Entry

Students must meet at least 9 out of the following 10 requirements (*Required)

- 1. Basic Cyber Maneuvers course completion (B or higher)*
- 2. Advanced Cyber Maneuvers course completion (B or higher)*
- 3. Commitment to uphold CLDP Scholar expectations and complete the program*
- 4. Resume & Cover Letter*
- 5. GPA (at or above 3.5)
- 6. National Cyber League (at or above 1000 points)
- 7. NCAE Cyber Games participation
- 8. Other cyber competition participation (e.g. Hivestorm, CodeBreaker etc.)
- 9. At least 1 application submitted for a cyber-related internship
- 10. Attend cyber talks (at least 1 per semester)

Scholar Expectations

1. Ancora Imparo – "I am still learning"

Scholars are expected to maintain high academic standards and continuously pursue growth in their knowledge and skillset. This commitment extends beyond the classroom to active participation in cyber competitions, speaking events, and outreach opportunities. The principle of *Ancora Imparo* emphasizes the importance of embracing lifelong learning and staying adaptable in a rapidly evolving field.

2. Non Ministrari, Sed Ministrare – "Not to be served, but to serve"

Scholars are expected to mentor and support peers while actively contributing to the success and growth of the cyber program. Leadership in the CLDP is founded on service to others. By supporting the development of future cyber leaders, scholars carry forward the legacy of service instilled by earlier generations of leaders.

3. Non Ducor, Duco - "I am not led, I lead"

Scholars are expected to embody the spirit of self-direction, initiative, and leadership. This includes leading efforts in cyber competitions, engaging actively in cyber events, and mentoring peers in the pursuit of shared objectives. The CLDP expects scholars to be proactive, confident, and decisive, always striving to set the standard for leadership in the cyber domain.

Curriculum

1. Basic Cyber Maneuvers (EGGN-1960)

Basic Cyber Maneuvers (BCM) is a one-hour seminar transforming cyber novices into beginner cyber operators. The course teaches Linux, Windows, and networking basics, preparing students for cyber exercises and future cyber courses. Students will learn through practical hands-on labs using TryHackMe.com. Graduates earn the BCM key tag and are placed on the path to becoming advanced cyber operators.

2. Advanced Cyber Maneuvers (EGGN-2960)

Advanced Cyber Maneuvers (ACM) is a one-hour seminar continuing from BCM. Students progress through the steps in the cyber kill chain as they conduct a simulated cyber operation. Students will learn through practical hands-on labs from TryHackMe and CU's Cyber Range. Graduates earn the ACM key tag and are prepared for red team cyber exercises.

3. Nation State Cyber Operations (EGGN-3960)

Nation State Cyber Operations (NSCO) is a one-hour evening seminar in which students will analyze the doctrines, strategies, and major cyber operations of the key nation-state cyber actors in today's digital world. Each seminar will provide students with the opportunity to engage in guided discussions and learn from lectures focused on connecting the concepts of cyber operations with real world events.

Program Progression

Standard Progress Chart

	Fall Semester	Spring Semester
Freshman Year	- Basic Cyber Maneuvers* - Attend National Cyber League practices & compete in individual competition (score of 1000+) - Attend speaking event	- Advanced Cyber Maneuvers* - Attend CyberGames practices & compete in team competition - Attend speaking event
Sophomore Year	- Cyber competition - Attend speaking event - Submit CLDP application	 Introduction Meeting Cyber reading & write-up Cyber competition Attend speaking event Attend Monthly Meetings
Junior Year	 Nation State Cyber Operations* Attend speaking event Cyber competition Cyber book Mentorship of cyber underclassmen 	 Attend Monthly Meetings Attend speaking event Cyber competition Global Leadership Problem Event Attend Monthly Meetings Mentorship of cyber underclassmen
Senior Year	 Mentorship of cyber underclassmen Attend speaking event Cyber competition Cyber skill presentation CLDP Leadership Commitment 	Attend speaking eventCyber competitionCLDP Leadership CommitmentAttend Monthly Meetings

^{*}These zero credit courses are offered under EGGN-1960, EGGN-2960, EGGN-3960 respectively



CENTER FOR THE ADVANCEMENT OF CYBERSECURITY

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CYBER LEADER DEVELOPMENT PROGRAM COMMITMENT LETTER

As a leader in the Cyber Leader Development Program, I commit to the following responsibilities and expectations:

1. Program Requirements:

• I will meet any outstanding requirements by the end of the spring semester (completing at least 9 out of the 10 program requirements).

2. Attendance and Participation:

- I will attend all monthly program meetings.
- I will attend at least 80% of speaking and cyber events.
- I will actively participate in all meetings and cyber events by leading discussions, asking questions, and engaging with presenters.

3. Skill Development:

 I will seek to advance my cyber skillset, including improving my Capture-The-Flag (CTF) skills and pursuing additional learning opportunities.

4. Professional Conduct:

- As a cyber leader, I will always display professional behavior and advance a Christ-centered culture in every interaction.
- I will adhere to the CLDP Scholar Expectations.

5. Accountability:

• Failure to meet any of the above expectations may result in removal from the program at the discretion of program leadership.

By signing this letter, I acknowledge and accept the responsibilities and expectations as outlined above.

TO BE SIGNED CRYPTOGRAPHICALLY

