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September 20, 2024

INFORMATION ASSURANCE AND CYBER DEFENSE PROGRAMS

Program Overview / Student Experience and Opportunities



- Dean Carol Johnson, College of Business
- Director Michael Sauer, Upper Peninsula Cybersecurity Institute
- Dr. Jim Marquardson, College of Business
- Students And Alumni: Jef Leroux, Rebecca Tatun, Sara Hagle

INFORMATION ASSURANCE AND CYBER DEFENSE PROGRAMS

EXECUTIVE SUMMARY



Today's discussion provides an overview of the university's cybersecurity programs and the unique education, experiences, and opportunities that students are provided.

- Program Overview
- Student Experience
- Career Opportunities
- Workforce Development



INFORMATION ASSURANCE AND CYBER DEFENSE PROGRAMS

PROGRAM OVERVIEW



- **NMU IS A NATIONAL CENTER OF ACADEMIC EXCELLENCE IN CYBERSECURITY**



Curriculum/Competency

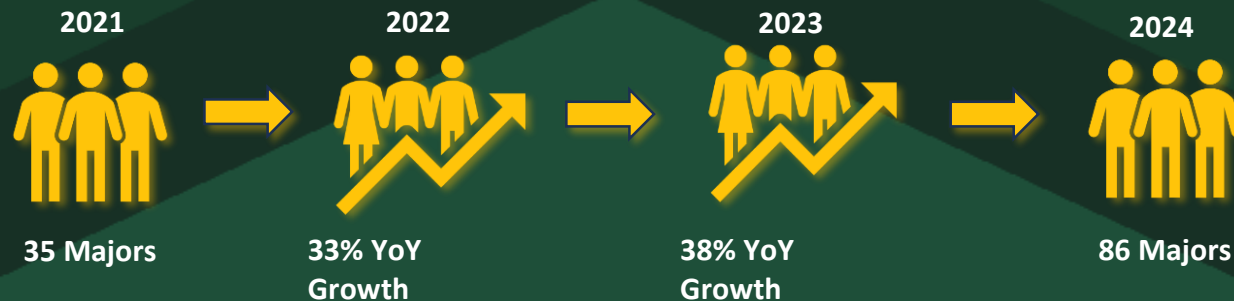


Outreach



Workforce Development

- **SUSTAINED ENROLLMENT GROWTH**

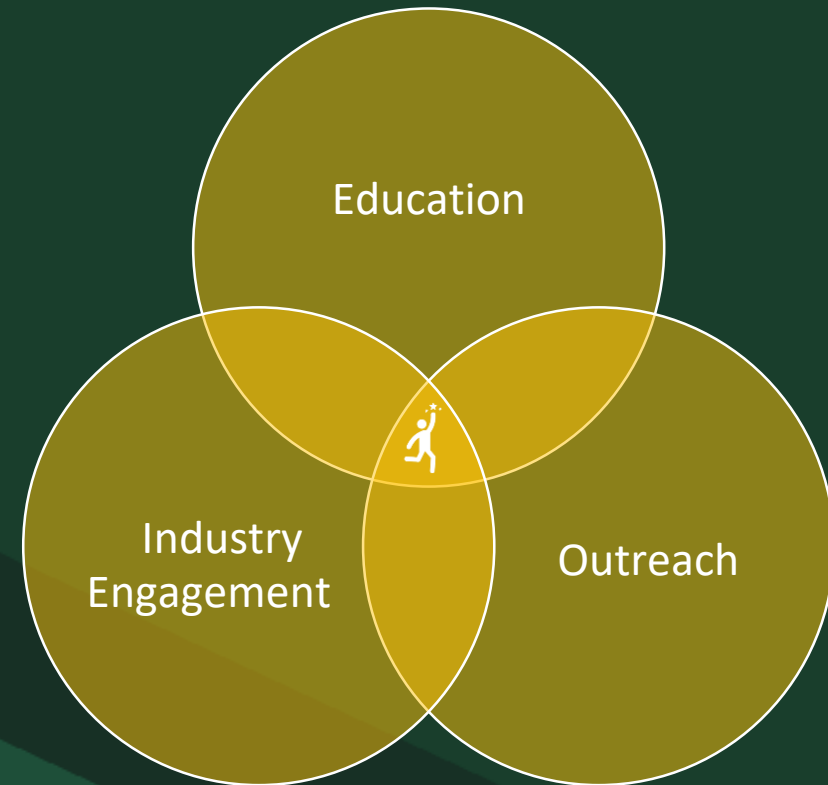


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STUDENT EXPERIENCE



- Student-Centered Approach
- Hands-On Learning Experience
- Conferences, Competitions, and Field Trips
- Internship and Apprenticeships
- Industry-recognized Certification and Training
- Strategic Partnerships with Industry and Government
- The Upper Peninsula Cybersecurity Institute



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NORTHERN STRIKE



- Northern Strike is an extensive joint military exercise in Michigan. Over 6,000 National Guard, Active-Duty, and NATO troops converged on Camp Grayling, the Nation's largest National Guard Base.
- NMU IA/CD students and Latvian cybersecurity troops, a NATO ally, participated in the exercise's cybersecurity mission.
- NMU's participation is the first time a collaboration with higher education has occurred at the Northern Strike Exercise.
- This is the first time in Northern Strike history that cybersecurity was used to increase battlefield capability and intelligence.
- Student Reflection: Jef Leroux & Rebecca Tatum



NMU IA/CD STUDENTS BEING READ IN ON MISSION

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CAREER OPPORTUNITIES



- **Strong Industry Advisory Committee and Network**
 - Three academic partnerships have resulted in companies locating practices in Marquette. Each partner provides unique paid internship opportunities to students while they are in school and the potential for full-time employment after graduation.
 - Northcross Group – Governance, Compliance, Risk
 - OccamSec – Penetration Testing
 - Pillr – Security Operations Center
 - Alumnus Reflection – Sarah Hagle



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WORKFORCE DEVELOPMENT



- **Ongoing Cybersecurity Workforce Demand and the Talent Pipeline Gap - A National Concern**

- Open cybersecurity positions have remained above 500,000 since 2018.
- NMU's Upper Peninsula Cybersecurity Institute is recognized as a state leader in cybersecurity workforce development and outreach through its innovative training, programs, and events.

- K-12 Outreach
- Industry Engagement
- Community Events



UPPER PENINSULA
CYBERSECURITY INSTITUTE
NORTHERN MICHIGAN UNIVERSITY





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- Questions
- Thank You