

## University of Montana Cybersecurity Initiative

The 68<sup>th</sup> Montana Legislature provided \$6.1 million to the Montana University System and the University of Montana to advance the state's cybersecurity posture. These funds are being invested to support three areas of need for the state:



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### 1. Workforce Training and Development

The University of Montana has created numerous opportunities for Montanans to earn employment credentials in cybersecurity, with all the 2-year and Certificate programs stackable into the 4-year program:

- 4-year B. S. in Cybersecurity from the College of Business
  - 24 new students in Autumn 2024 term.
- 2-year A.A.S. in Information Technology and Cybersecurity from Missoula College (Note that Missoula College is nationally recognized as a Center of Academic Excellence in Cybersecurity)
  - 25 new students in the Autumn 2024 term.
- Accelerated Certificate of Technical Studies in Cybersecurity (10-15 weeks) – 31 participants through this summer term.

UM and CyberMontana is also working to strengthen the pipeline to a career in cybersecurity for K-12 students and businesses:

- Provide **Security Awareness Trainings to local businesses** to help establish a primary line of defense against cyber threats – over 2900 participants to date. Training takes place in two modalities: monthly online lessons and in-person awareness training.
- Provide **minimal to no-cost professional development to technology personnel in private businesses, local governments, and education organizations** through 1,900 training modules available through CyberMontana – 127 participants to date completing 558 cybersecurity courses totaling 1,500 hours of training.
- **Middle School STEM Summer Camps** – 525 students served through August 2024.
- **High School Introduction to Cybersecurity** – nearly 80 students from across the state have completed the course. In Spring 2025, this course will also be offered through the Montana Digital Academy.
- **High School Early College Cybersecurity Certificate of Technical Studies** (can be completed in 1-2 years)

*\*In total, CyberMontana conducts cybersecurity outreach to approx. 4,500 Montanans each year.*

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### 2. Cloud-Based Infrastructure

UM established a Security Operations Center (SOC), partially using funds from HB 10. The SOC monitors over 5,000 endpoints for the UM-system and for several participating communities. The SOC made an immediate impact in reducing malicious activity – including identifying a malicious tablet within the City of Whitefish's Water Treatment Plant. The SOC is staffed around the clock by UM employees and students studying one of UM's cybersecurity programs. Current participants include: Sheridan County, Ravalli County, Lake County, as well as the municipalities of Whitefish, Manhattan, and Harlowtown.

UM's College of Business also established the Cyber Operations Center Learning Lab. This space allows UM to conduct cyber classes with up to 36 students at a time.

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### **3. Address Statewide Cyber Threats**

UM is conducting a series of Critical Infrastructure Incident Response Trainings. These trainings bring together numerous entities to simulate an attack to critical statewide infrastructure. Trainings to date with HB10 funds are:

- Electric grid cyberattack simulation with Northwestern Energy and Rural Electric Co-Ops: 57 participants, 20 MT counties represented
- Logan Health led a hospital-based scenario simulation: 110 participants; 32 MT counties represented
- Montana University System: 62 participants
- Local Governments in conjunction with MACo
- K-12 cyber threat simulation: 42 participants

Separately, and in partnership with CSMI, UM and CyberMontana are providing community-based Cyber Clinics throughout the state. The target audience includes business owners, community leaders, public sector officials, and the general public. Clinic topics cover several best practices in cybersecurity, including secure password management, working from home, data safety, and social media protections. 18 workshops are planned across the state for 2024 and 2025, with the first launching in October. Clinics will be held in 15 different counties and on all seven Tribal reservations.

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### **4. Increasing the K-12 Teacher Pipeline in Cybersecurity**

The University of Montana has partnered with 5 institutions across the nation, forming a coalition to help address the shortage of K-12 teachers in the field of cybersecurity. UM is the lead institution in this effort, joining forces with National University (San Diego, CA), Houston Community College (Houston, TX), Eastern New Mexico University (Ruidoso, NM), North Dakota State University (Fargo, ND), and City College – Seattle (Seattle, WA).

In Summer 2025, UM will host an intensive weeklong workshop designed to provide essential knowledge to Montana's K-12 educators interested in teaching cybersecurity topics in local high schools. Educators will participate in hands-on activities on the UM Cyber Range and will develop curricular materials to be used in the 2025-2026 school year. Similar workshops will be held at coalition institutions.