

University of Montana \$1,500,000

The Montana Cyber Hub for workforce education is to serve the entire state of Montana from Missoula College. As Montana's first nationally recognized Center of Academic Excellence for Cyber Defense Education (National Security Agency and federal partners, 2017), Missoula College is uniquely poised to lead Montana Cyber Hub (Dean of Missoula College has deep background in IT/Technology). Remote learning will be used to deliver education to all regions in the State using both non-traditional short-term training (boot camps, code school, and IRC) and existing academic certificate and degree programs.

Cyber defense readiness includes development of the cybersecurity professional pipeline; professional development and upskilling of the existing cybersecurity workforce; and education programs designed to increase cyber awareness and increase the cybersecurity defense capacity of businesses.

Other campuses and partnerships involved in the initiative

Faculty, students, and staff from the following campuses have participated in activities funded by the CyberHub.

Campuses

- University of Montana
- Helena College
- Miles Community College
- Salish Kootenai College
- Aaniih Nakoda College
- Montana State University
- Gallatin College
- Highlands College
- Montana Tech
- Great Falls College
- City College
- Sentinel High School

Partnerships

- Montana Army National Guard
- Montana K12 Educational Technologists Association (META)
- Cengage
- Cyber Range Solutions
- Cyber.org
- CyberUSA
- Hanover Research
- Proofpoint, Inc
- Accelerate Montana
- State of Montana/Department of Labor and Industry/Job Service Montana
- State of Montana/Department of Commerce
- State of Montana/Cyber406
- State of Montana/National Governors Association Policy Academy
- U.S. Cyber Range
- U.S. CyberCom (Department of Defense)
- Little Shell Chippewa Tribal Community

Status update on the initiative

The Cyber Hub is divided into 4 areas: creation of the Montana Cyber Range; workforce development for new learners and current practitioners; and statewide cyber awareness education, and dedicating personnel for recruitment & career mentoring as well as personnel to supplement existing Montana University System (MUS) cybersecurity programs. Cyber Hub activities share resources with the Accelerate Montana (aMT) team to broaden impact and efficiency.

The CyberHub initiative is focused on the following efforts:

- **Montana Cyber Range:** The Range is a mix of cloud-based and on-premise computing resources offering individual and team-based cybersecurity training. In the first full semester of operation, we are hosting lab activities for 12 instructors and over 60 students. Statewide professional development is taking place with higher education faculty to incorporate the Range into IT and cybersecurity curricula to expand use of this resource. The Montana Digital Academy (MTDA) will utilize the Range as part of their curriculum in Autumn, 2022.
- **Workforce Education and Development:**
 - Cyber/STEM Camps – Eight (8) middle school camps located in Billings, Bozeman, Butte, Great Falls, Helena, Miles City, and Missoula are scheduled for Summer 2022 and will serve approximately 150 participants.
 - High school early college – Introduction to Cybersecurity course Spring, 2022 served 10 students from Alberton, Augusta, Billings, Conrad, Fairfield, Florence, Great Falls, Helena, Dillon, and Laurel. New early college course offerings leading to Certificate in Technical Studies (CTS) in Cybersecurity will be launched in Autumn, 2022. This is a 12-credit program that prepares students for an entry-level cybersecurity/IT position.
 - New Learners/Reskilling – Initial launch of 12-15 week Rapid Training CTS in Cybersecurity May 2022, with a pilot cohort of 6 students. Subsequent rapid training programs are slated for Autumn 2022, Spring 2023, and Summer 2023.
 - 15 cybersecurity faculty members from tribal colleges, community colleges and the MUS participated in bimonthly communities of practice to engage in training activities for the cyber range and in preparing STEM cyber camps. Six faculty members completed professional development at the annual National Initiative in Cybersecurity Education (NICE) in Atlanta.
 - Customized training has been developed for K12 school districts to align cybersecurity liability compliance and will begin in late June 2022 with an anticipated cohort of 100 technology directors. Additional customized trainings are planned for IT staffs across the MUS, and state, local, and county government. Private sector trainings are planned in the next biennium.
- **Small Business Cybersecurity End-user Training** – Pilot programs to address end-user cyber training are scheduled in Helena and Missoula in June 2022; expansion to other communities including Billings, Bozeman, Butte, Great Falls, and Kalispell is planned for the next biennium
- **Outreach and Recruitment** - Director of Workforce Training & Career Education started December 2021; two (2) Outreach Coordinators were hired in May, 2022. Additional Outreach coordinators for other regions of the State are currently being recruited.

Plans for carrying out the initiative for the remainder of the biennium

- Continued promotion of early college cybersecurity offerings, including contact with all 169 public high schools in the state.
- Expansion of K-12 STEM/Cyber camps and outreach throughout the state, with a focus rural and tribal locations.
- Expansion of cyber resources to other 2- and 4-year campuses across the State through communities of practice that bring faculty together to enhance, align, and share curriculum.
- Upskilling programs for workforce development in both the private and public sectors.
- Provide cybersecurity awareness training to employees from all businesses sectors to enhance Montana's cybersecurity defensive posture.

Metrics used to measure success

- ✓ Number of CyberHub program participants engaged from outside Missoula County, and through remote delivery technology
- ✓ Number of participants and program completers from Montana's underserved groups

Budget Update

University of Montana - Missoula College CyberHub as of 5/31/2022	
Beginning Balance	750,000
Expenditures	
Personal Services	135,818
Contracted Services	98,732
Supplies	124,269
Communications	213
Travel	9,124
Repairs & Maintenance	8,082
Other Services	534
	<u>376,772</u>
FY 2022 Balance	<u><u>373,228</u></u>