



UMBC

Maryland Institute for Innovative Computing: U.S. Cyber Range

SEPTEMBER 2025 NEWSLETTER



Welcome to the Maryland Institute for Innovative Computing (MIIC) newsletter.

MIIC's purpose is to bring together researchers, educators, industry, and government to address challenges in areas such as cybersecurity, artificial intelligence, and cloud computing. Our goal is to keep Maryland at the forefront of discovery while providing opportunities for students, educators, and professionals to develop the skills needed in today's technology-driven world.

In this first issue, we highlight one of our flagship initiatives: Maryland's access to the U.S. Cyber Range. This cloud-based training environment provides hands-on cybersecurity learning without the need for local infrastructure.

Thanks to state support, K-12 school systems and public higher education institutions can use the platform at no cost.

This newsletter will feature updates, events, and opportunities to engage with MIIC. We look forward to building this community together!



U.S.
CYBER
RANGE

FAST FACTS: U.S. Cyber Range

- Offers hundreds of ready-to-use labs in cybersecurity.
- Supports customizable exercises, allowing educators to design their own challenges.
- Provides built-in assessment tools to track student progress and skill development.
- Accessible from any web browser, with no software installation required.
- Backed by a national partnership with Virginia Tech, expanding resources and expertise.

Range Reminders

- **For our current U.S. Cyber Range users**, please remember to end courses when they are complete. MIIC is billed based on the number of enrollments in active courses, not just new ones. Leaving courses open after students have finished inflates enrollment counts and increases costs. By closing courses promptly, you help us preserve resources, ensure continued free access for Maryland schools and institutions, and keep the Cyber Range sustainable for future classes.
- **Sign up for the U.S. Cyber Range newsletter** to keep up to date on the latest U.S. Cyber Range news. <https://uscyberrange.us16.list-manage.com/subscribe?u=79c9bd04bb4d49dc673b49ac8&id=4705c1ee3f>

Contract Extension Secures Cyber Range Access

Great news for Maryland educators and students: UMBC's contract with Virginia Tech for the U.S. Cyber Range has been extended through January 1, 2031. This five-year extension ensures continued access to the Cyber Range's hands-on cybersecurity training environment across K-12 schools, community colleges, and universities. The agreement also includes a convenient option to renew for an additional two-year period, keeping the platform accessible well into the future. Importantly, any new agreements will now share the same end date, making it easier to manage and execute extensions. This update strengthens MIIC's long-term commitment to advancing cybersecurity education statewide.



Upcoming Events!

National Cryptologic Foundation's Convening to Act: Education Summit on Cybersecurity K-12

Date: October 17, 2025

Time: 8:00 AM – 4:00 PM

Location: Technology Advancement Center (TAC) - Columbia, MD

Registration - \$29

Late Registration - \$39 (starting October 1st)

For more information, visit:

<https://cryptologicfoundation.org/educators/ed-summit-agenda.html>

Proposed: Statewide Capture The Flag Event

Date: Coming soon!

Interest Form:

<https://forms.gle/vGarwWLgrugXGc2x8>

Maryland's Range Usage: June 2024 - June 2025

Time Spent in the Range

- K-12:
 - 605 hours
- Community Colleges:
 - 6,948 hours
- Universities:
 - 348 hours

Student Enrollments

- K-12:
 - 184 students
- Community Colleges:
 - 700 students
- Universities:
 - 198 students

Top Users of the Range

- K-12:
 - Baltimore County Public Schools
 - Frederick County Public Schools
- Community Colleges:
 - Montgomery College
 - Garrett College
- Universities:
 - University of Maryland Baltimore County
 - Frostburg State University



“Range gives equal access... students can work on their labs inside or outside the classroom.”

MADHVI SHAH

“I don’t have to be worried about a student damaging their system or me having to figure out how to fix things for them. Everything is already ready in the Cyber Range.”

REZA MIRABRISHAMI

“The Range is a perfect fit for student-driven projects—whether they’re preparing for competitions or building their own capture-the-flag challenges.”

PAUL THOMPSON

“Employers want graduates who can demonstrate applied skills, and the Range gives our students that experience in a structured way.”

MADHVI SHAH

Inside the Range: Montgomery College

Montgomery College (MC) has emerged as one of the top users of the U.S. Cyber Range among Maryland’s community colleges. Faculty members have integrated the platform into courses across computer science, networking, cloud, and cybersecurity, finding it to be a transformative tool for teaching and learning.

A central theme across the faculty’s feedback is how the Cyber Range removes barriers for students. Many learners come to MC with limited technical resources. By shifting activities into the cloud, the Cyber Range ensures that every student has equal access to the same tools and learning environments. This levels the playing field and allows classes to begin hands-on work immediately, rather than losing valuable time to technical setup.

For instructors, the platform simplifies course delivery. Traditionally, faculty would spend significant time troubleshooting configuration issues on individual student machines, taking away from instruction time. With the Cyber Range, environments are pre-configured and ready to use, enabling instructors to devote more energy to guiding students through concepts and applications. This reliability has also made it easier to incorporate more advanced labs and exercises into the curriculum.

Beyond the classroom, Montgomery College faculty see potential for the

Cyber Range to support extracurricular activities. The Cybersecurity Student Club, for example, can use the platform for experimentation, competitions, and collaborative projects. This flexibility helps bridge the gap between academic coursework and the real-world skills needed in the field.

Another key benefit is workforce readiness. Exercises on the Cyber Range align closely with industry certifications and professional practices. By completing labs in a realistic but controlled environment, students gain the confidence and competence that employers look for when hiring. Faculty emphasized that this connection between classroom learning and career preparation makes the platform invaluable for community college students, many of whom plan to transfer or enter the workforce directly after graduation.

Montgomery College’s experience illustrates how the Cyber Range can broaden access, improve instruction, and strengthen career pathways. The faculty encourage new institutions to start small, provide training for instructors, and build gradually. With thoughtful integration, the Cyber Range can become a cornerstone of modern cybersecurity education.

