

The WHAT

The Towson University Center for STEM Excellence in partnership with the TU Cyber Center is excited to announce the 2023-2024 **B'More Secure GenCyber Professional Learning Program**. This year-long professional learning opportunity for middle and high school educators in Maryland will build teacher capacity to integrate cybersecurity concepts into their courses and engage students in learning about careers and post-secondary opportunities in cyber security. The program is open to teachers with little to no cybersecurity content knowledge (novice track) as well as teachers with existing cybersecurity knowledge and teaching experience who want to continue to build their skills (experienced track).



Novice Track Novice Track participants will gain an understanding and develop foundational skills in core cybersecurity concepts related to information and data confidentiality, integrity, availability, authentication, and accountability. Content will include information management, sharing and protection, cyberethics, and cyber laws emphasizing cyberbullying and identity theft. In addition, participants will learn computer programming and concepts in secure coding, setting up a secure password, and a brief introduction to malicious software.

Experienced Track participants will take a deeper dive as they pursue mastery of cybersecurity concepts. Content will include an overview of cybersecurity fundamentals and network and system security with an emphasis on secure coding, vulnerability and exploitation. This track will also focus on system hardening, security auditing, social engineering and phishing detection. This track is appropriate for those already familiar with cybersecurity content and/or already teaching courses in these topics.

The HOW

The B'More Secure GenCyber project is built around a 5-day teacher 'summer camp' held on the campus of Towson University June 26 - June 30 , 2023. Each day of the camp is designed around a cybersecurity concept. Camp facilitators will include a mix of university faculty,

graduate students and K-12 pedagogical experts. Participants will have the option of staying on campus or commuting daily and meals will be provided. Optional evening activities will include networking with colleagues, cybersecurity themed games and workshops.

During the summer camp participants will begin working on their Classroom Implementation Project, creating two cybersecurity lessons they will use in their own classrooms. The following school year, participants will attend virtual webinars, implement cybersecurity lessons in their classrooms and receive support from colleagues, K-12 pedagogical experts as well as content experts. The year-long program will culminate in an in-person B'More Secure GenCyber Conference in Spring 2024 where participants will meet, network and share the results of their Classroom Implementation Projects.

Participants will leave the program with increased knowledge and confidence about cybersecurity concepts, as well as ideas and ways to continue to engage their students in learning about cybersecurity and exploring career and post-secondary opportunities in the field.

B'More Secure GenCyber Professional Learning Community		
Pre-Work (3+ hours)	Summer Camp (31+ hours)	School Year (14+ hours)
<ul style="list-style-type: none"> ★ Kick-off Webinar (online/sync) ★ Community-building and orientation pre-work (online/async) 	<ul style="list-style-type: none"> ★ GenCyber Concepts (novice & advanced tracks) ★ Cybersecurity pedagogical content knowledge ★ Cybersecurity Career Connections ★ Cybersecurity Curricular Connections ★ Cybersecurity Connections to Local Contexts ★ Lesson plan development ★ Evening community building, games & workshops ★ 1x1 support from content & K-12 pedagogical experts 	<ul style="list-style-type: none"> ★ Finalize Classroom Implementation Project ★ 1x1 support from content and K-12 pedagogical experts ★ Implement cybersecurity lessons ★ GenCyber Concepts Virtual Seminars ★ Team meetings with colleagues ★ Access to undergraduate classroom mentors ★ Access to Raspberry Pi classroom equipment ★ Attend and present at culminating B'More Secure GenCyber Conference

The WHEN and WHERE

The B'More Secure GenCyber program will begin in late May/early June 2022 with a virtual (synchronous) Kick-Off Webinar as well as ~2 hours of online (asynchronous) community building and orientation pre-work. The in-person summer workshop will take place June 26 - June 30, 2023 with a final in-person B'More Secure GenCyber Conference May 4, 2024 during which

program participants will present the results of Classroom Implementation Projects and network with colleagues.

- ★ **Kick-Off Webinar:** TBD- Late May/early June 2023
- ★ **Summer Camp:** June 26-June 30, 2023, 8:30 am to 5:00 pm at Towson University (main campus, 7800 York Road, Towson, MD, 21252).
- ★ **2023-2024 School Year Events**
 - Complete GenCyber Classroom Implementation Project
 - Attend at least four B'More Secure Virtual Seminars (weekday evenings)
 - Attend at least two virtual team meetings with colleagues
- ★ **B'More Secure GenCyber Conference:** May 4, 2024 (Saturday) in-person at Towson University. Share results of Classroom Implementation Project & network with colleagues.

The WHY

Teachers who successfully complete the B'More Secure GenCyber program will receive a \$1,200 stipend (must be U.S. citizen or permanent resident), a new computer (which is theirs to keep), (3) CPD credits and AU credits (pending Baltimore City approval). In addition, program participants will be members of an active learning community with access to peers engaged in cybersecurity teaching, TU faculty cybersecurity content experts, K-12 pedagogy coaches, near-peer classroom mentors for their students, support for cybersecurity certifications and access to hands-on cybersecurity equipment loaner kits for classroom use.

The WHO

Any secondary teacher in Maryland with an interest in learning more about teaching cybersecurity and a willingness to design and incorporate cybersecurity into at least two lessons during the 2023-2024 school year are welcome. Teachers from any subject area are invited to apply and our 'novice' and 'experienced' tracks allow us to accommodate educators who know little to nothing about cybersecurity, as well as those already teaching cybersecurity courses who want to learn more and grow their skills. We are particularly interested in increasing interest in cybersecurity in students traditionally underrepresented in cyber careers and fields of study (i.e. African American, Hispanic) and strongly encourage educators who work with these populations of students to apply.

Applications available on our [website](#) in Spring 2023.

Frequently Asked Questions

I'm a middle or high school teacher and I don't yet know anything about cybersecurity. Can I apply? YES! Our 'novice' track is designed

for participants who know nothing (or very little) about cybersecurity. The B'More Secure GenCyber program will introduce you to the fundamentals of cybersecurity and provide opportunities for you to find connections between cyber and the subjects/courses you currently teach. Please email GenCyber@towson.edu if you have questions about the curriculum or the tracks.



I already teach cybersecurity. Will I learn

anything new in this program? YES! Our 'experienced' track is designed for participants who already know a lot about cyber. Sessions will be taught by TU faculty with expertise in the field, allowing you access to the latest information in cybersecurity. In addition, K-12 pedagogical experts are available to support you as you translate what you are learning into engaging classroom lessons. Please email GenCyber@towson.edu if you have questions about the curriculum or the tracks.

I don't live in Maryland. Can I still apply? We are only able to accept educators who teach in Maryland schools. If you live outside of Maryland, but you teach in a Maryland school then you are eligible for the program.

I want to apply, but I'm not sure about the residential aspect of the Summer Camp. Do I have to stay on campus to be part of the program? The Summer Camp is an intensive course designed to immerse participants in all things cyber for five full days with networking opportunities, games and workshops available during evening hours. Because of the immersive nature of the program, we are providing the option for all participants to stay on campus for the duration of the Summer Camp. However, participants are welcome to commute each day.

Will I have to pay for room and board on TU's campus during the Summer Camp? No. TU will cover all the costs of your housing. All participants will also receive free breakfast, lunch and dinner.

I'm worried that I will not get enough downtime during the intensive summer camp, especially if I'm staying in a dorm with other participants. Will there be opportunities for participants to relax



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and take some time to themselves? Absolutely! While the Summer Camp will be an intensive learning experience with long days, participants will be provided with breaks and time to themselves. Additionally, each residential participant will be assigned their own room with their own bathroom (and microwave and fridge).

What if I can only attend some of the required sessions. Can I still participate? All participants must attend all required sessions. This includes the Kick-Off meeting, five days of summer camp and culminating in the B'More Secure GenCyber Conference at the end of the school year. Participants will also need to attend (virtually) at least four GenCyber Webinars throughout the school year (offered at several different dates and times to accommodate a range of schedules).

I don't teach a cybersecurity course. Can I still apply? Yes! We're looking for teachers from all subjects with a willingness to learn about cybersecurity. As part of the program, you will be developing and implementing two cybersecurity lessons with your students. Since you will be designing the lessons, you can make them fit into your existing course curriculum.

I don't serve student populations who are underrepresented in cyber fields and careers (e.g. African American and Hispanic students). Can I still participate? Yes. All participating teachers must commit to highlighting the importance of diversity, equity and inclusion in cyber fields and careers. While we are particularly interested in increasing interest in cybersecurity in students traditionally underrepresented in cyber careers and fields of study (i.e. African American, Hispanic) and strongly encourage educators who work with these populations of students to apply, applications will be considered from teachers who serve any Maryland student population.

I'm unsure if this is the right opportunity for me. How can I find out more about the program to determine if it is a good fit for my professional learning goals? Reach out to Dr. Mary Stapleton at GenCyber@towson.edu. She can answer any questions and put in touch with cyber faculty who can provide more details on the curriculum and learning goals of the program.

How might COVID-19 affect the B'More Secure Gencyber program? We will follow all state and local guidelines with respect to Covid safety and will update participants to any changes in programming as a result of Covid-related guidelines.

I have a question that wasn't addressed in this document. Is there a real human being I can reach out to? Yes! Email Dr. Mary Stapleton at gencyber@towson.edu with your questions.