

High School Students Explore Cybersecurity at DC3

By Stephen Murphy, DC3 Public Affairs

The DoD Cyber Crime Center (DC3) hosted more than 20 students from Glen Burnie High School for an educational visit Feb. 19.

The students, grades 9-10, left behind their classrooms in Glen Burnie, Md., for a two-hour exploration of the cybersecurity field and how it relates to the biomedical field they are studying as part of their school's Science, Technology, Engineering and Mathematics (STEM) Biomedical Magnet (BMAH) program.

Glen Burnie High School STEM BMAH department chair, Krystal Gulden, said even though the students are preparing for a career in the biomedical field, the experience for the students was of great benefit to them.

"Our STEM Magnet program is more focused on the biomedical fields, however, we do have a Health Information Technology pathway," said Gulden. "It is important for our students to understand how [cybersecurity] is important in protecting patient information and the daily operations of medical facilities."



David Lutzow, Cyber Forensics Laboratory, chief of Imaging and Extraction; uses 3-D graphics to show Glen Burnie High School students the inside of a cellphone. Photo by Stephen Murphy



Kris Johnson, director, Vulnerability Disclosure Program; answers questions from Glen Burnie High School students during their visit to the DoD Cyber Crime Center Feb. 19. Photo by Stephen Murphy

Team members from DC3s Vulnerability Disclosure Program (VDP), Technical Solutions Development (TSD), Cyber Training Academy (CTA), DoD Defense Industrial Base (DIB) Collaborative Information Sharing Environment (DCISE) and Cyber Forensics Laboratory (CFL) presented briefings covering current cybersecurity threats, DC3s

capabilities and pathways to a career in the cybersecurity career field.

Kris Johnson, director, Vulnerability Disclosure Program; discussed the partnership between DC3 and ethical hackers, the benefits of being an ethical hacker and what it would take to become one. This conversation resulted in a lot of questions from the students. Many had never heard of the term ethical hacker and were surprised DoD would partner with any type of hacker.

“It was a lot of fun demystifying the world of hacking for the BMAH students,” said Johnson. “They are at an ideal point in their lives to learn a coding language which can then be used to tear apart software and systems in order to discover vulnerabilities. The great news is that they already have everything at their disposal to start; a smartphone, Google and YouTube. I hope that a few of the students will pursue this path as more organizations are employing hackers to be part of their security strategy.”

One of the many highlights for the students was a presentation by David Lutzow, CFL, chief of Imaging and Extraction. With the aid of digital media display pieces, including a tablet and cellphone, Lutzow discussed types of evidence that can be extracted and methods used by those who aim to destroy such devices to render them useless in a criminal investigation.

Throughout the course of Lutzow’s presentation, the students had a lot of questions about the technology digital forensic examiners have at hand and the types of information that can be discovered through data extraction.

“I was excited to pass on information that I have learned over the past 15 years, and it was enlightening to learn how little the younger generation knows about their digital footprints,” said Lutzow. “When they learned how much information a forensic examiner can glean from their cell phones and on-line activities, they were clearly in shock. Although that was not an intended outcome of my briefing, I hope they have a better understanding and appreciation for digital forensics. And, when it comes to questionable content, I believe they will think twice before hitting send or post.”

Other presentations included TSD showcasing its own handiwork – the Advanced Carver cyber forensics tool and its DC3 app. DC3 military members discussed their roles at DC3 and their military paths that led them here.

The visit from Glen Burnie High School is the second such visit. Information Technology (IT) students from the Marshall Academy in Falls Church, Va., visited DC3 in December 2019, to broaden their knowledge of the IT and cybersecurity fields.

“I hope the students are able to make connections from the topics covered on this trip to their pathway of study in our magnet program, or their personal lives,” said Gulden. “Students gain the most knowledge from interacting with professionals in an actual work setting.”

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