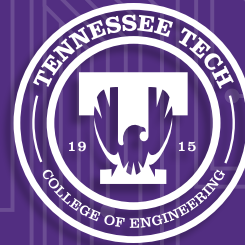




CYBERSECURITY EDUCATION,
RESEARCH AND OUTREACH CENTER



CYBERSECURITY COURSE OPPORTUNITIES FOR YOUR DISTRICT

The Golden Eagle Cyber Certificate Program is a three-course (nine credit hours) program introducing high school students to foundational cybersecurity-related topics and thought processes.

This program is for any student with a natural curiosity for STEM. It is intended to provide a cybersecurity foundation for all interested students, not just those seeking a career in cybersecurity or computing, thus a cybersecurity or computer science background is not required.

Each of the courses in the program is designed to contribute to the program objectives of a two or four-year higher education for any major either as major-specific, general education or elective credits, rather than focusing on an industry certification.

BENEFITS TO TENNESSEE K-12 DISTRICTS

The GECC program allows K12 districts to gain immediate access to quality cybersecurity courses without the commitment of additional staff to teach the courses. All courses are offered in an asynchronous, online format via Tennessee Tech learning platforms and are taught by Tennessee Tech faculty. Participating districts need only to provide the following:

- A Memorandum of Understanding establishing a relationship between the district and Tennessee Tech University.
- A learning space with an Internet-connected computer allowing students to access Tennessee Tech learning platforms.
- Logistical support to participating students going through the admissions and enrollment processes (generally a CTE supervisor working with Tennessee Tech Admissions and dual enrollment coordinators).

THE GOALS OF THE GECC PROGRAM ARE TO:

- Provide a high-level introduction to the area of cybersecurity, exposing the breadth of areas of study in which the topic is relevant.
- Encourage high school students to consider cybersecurity as an area of study in their post-secondary education.
- Contribute to the cybersecurity workforce development goals for the Cybersecurity Education, Research and Outreach Center at Tennessee Tech University as well as the goals set forth by the State of Tennessee.
- Facilitate growth in overall student participation in STEM-related fields.



COURSES

Principles of Computing

CSC 1200 | Lec. 3 | Credit 3

This course introduces the field of computer science. Topics include computing as a creative activity, abstraction, data and information, algorithms, programming, the Internet and global impacts of computing.

Introduction to Cybersecurity and Privacy

CSC 2570 | Lec. 3 | Credit 3

Introduction to fundamental principles, common attacks, and defense mechanisms in the area of cybersecurity and privacy. Students will be introduced to fundamental concepts and building blocks of computers with cyber defense elements including security objectives, attack types, adversary models, policies and models, threat modeling along with anonymity, cyber security ethics and legal issues. This is an introductory level course for students interested in cybersecurity.

American Government- cyber edition POLS

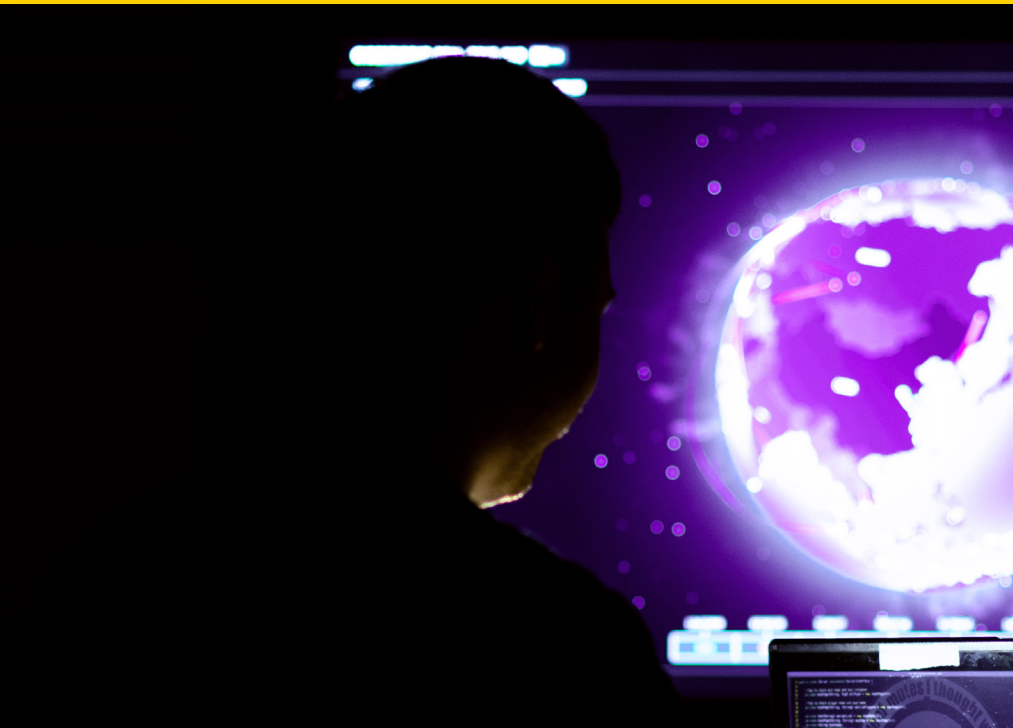
1030 | Lec. 3 | Credit 3

This course teaches students American government from a non-partisan perspective and fulfills the State of Tennessee's requirements for a general education social/behavioral science (3) hour credit option. Additionally, the class introduces students to the specific impact, including a predicted global cost of over 24 trillion dollars by 2027, of cybercrime on individuals, the United States and the world.

Introduction to Sociology - cyber section

SOC 1010 | Lec. 3 | Credit 3

Fundamental concepts and basic principles underlying human social relations including a review of cybersecurity implications. This course is open to any major and will count towards general education credit.



USEFUL LINKS

Tennessee Tech Dual Enrollment

tntech.edu/DualEnrollment



Golden Eagle Cyber Certificate Program

tntech.edu/ceroc/education/gecc



For more information about the program, email ceroc@tntech.edu with a subject line of "Golden Eagle Cyber Certificate Program". A member of staff will be in contact within three business days.