

# CYBERSECURITY (CYBR)

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## **CYBR 403. CYBERSECURITY POLICIES, PRIVACY AND LAWS. 4 Credits.**

**Notes:** this course meets for 3 hours of lecture and 2 hours of lab per week.

**Pre-requisites:** CSCD 202 with a grade  $\geq$ C+, CSCD 303 with a grade  $\geq$ C+.

A survey of the issues and complexity of cybersecurity policies and privacy in the digital age. Topics include cybersecurity policies and privacy, case studies of cybersecurity breaches, cybersecurity for business, social media and the general populace, information technology and intellectual property law, privacy law, privacy issues and data protection, electronic voting, health, and other societal digital information. Written assignments, and hands-on practice with security tools are required.

## **CYBR 410. APPLIED CYBER DEFENSE. 4 Credits.**

**Notes:** this course meets for 3 hours of lecture and 2 hours of lab per week.

**Pre-requisites:** CSCD 303 with a grade  $\geq$ C+, CSCD 330 with a grade  $\geq$ C+.

This hands-on course allows students practical experiences related to cybersecurity threats, mitigations, malware, and cyber defense scenarios. Students will learn the tactics malicious actors use to exploit applications, computers, networks, and the strategies used to respond to these threats. This course includes written assignments, and hands-on practice with security tools and techniques.

## **CYBR 412. APPLIED CYBER OPERATIONS. 4 Credits.**

**Notes:** this course meets for 3 hours of lecture and 2 hours of lab per week.

**Pre-requisites:** CYBR 410 with a grade  $\geq$ C+.

This hands-on course allows students practical experiences related to cybersecurity attacks, malware, and cyber operations scenarios. Students will learn the tactics malicious actors use to exploit applications, computers, networks, and the strategies used to respond to these threats. The course includes written assignments, and hands-on practice with security tools and techniques.

## **CYBR 455. DIGITAL FORENSICS AND CYBERCRIME. 4 Credits.**

**Notes:** this course meets for 3 hours of lecture and 2 hours of lab per week.

**Pre-requisites:** CSCD 303 with a grade  $\geq$ C+, CSCD 330 with a grade  $\geq$ C+.

This course provides an overview of the concepts, theories, principles, and practice of digital forensics and cybercrime, methods and procedures, legal issues, disk structures, file systems, evidence acquisition and processing, OS registry and artifacts, reporting, and testimony, mobile forensics, network forensics. Use of analytical and investigative techniques to identify, collect, examine, and preserve data. Written assignments, and hands-on practice with security tools are required.