

CYBERSECURITY (CSEC)

QUICK FACTS: CSEC COURSES

- **Instructional School:** Science, Technology, and Math
- **Department:** Information Technology

CSEC 111 Cybersecurity Essentials

(4 Credits, Fall)

This course covers a variety of topics for students seeking to become cybersecurity professionals including basic hardware, operating systems, ethics, and soft skills. PREREQ: Cybersecurity major. PRE/COREQ: Placement into MATH 123 or concurrent enrollment in any GEM 3 course. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 115 Introduction to Networks

(4 Credits, Fall)

This course introduces architectures, models, protocols, and networking elements needed to support the operations and priorities of current-day business. PREREQ: Cybersecurity major. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 119 Introduction to Internetworking

(4 Credits, Fall)

This course introduces switching technologies and router operations that support small-to-medium business networks, including wireless local area networks (WLAN) and security concepts. PRE/COREQ: CSEC 115. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 127 Server Operating Systems

(4 Credits, Spring)

Planning, installing, and configuring network servers and clients in a server environment. Issues related to protocols, sharing, policies, migration, optimization, architecture, and administration. PRE/COREQ: CSEC 119. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 129 Fundamentals of Linux

(4 Credits, Spring)

Introduction to the Linux operating system with emphasis on basic administration tasks. PRE/COREQ: CSEC 127. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 131 Introduction to Information Security

(4 Credits, Spring)

Designing a security framework for small, medium, and enterprise-level networks. PRE/COREQ: CSEC 129. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 199 Cybersecurity Special Topics

(1-5 Credits, Varies)

This course is designed to permit the offering of special topics appropriate to a student's program. Regular or frequently recurring topics are not offered under this title. The course may be repeated as new topics are presented. (1 lecture hours, 0 lab hours, 1 credits)

CSEC 246 Securing a Directory Services Infrastructure

(4 Credits, Fall)

Implementing, troubleshooting, maintaining, and securing a network infrastructure in a directory services environment. PRE/COREQ: CSEC 127 and CSEC 131. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 248 Advanced Cybersecurity

(4 Credits, Fall)

Key security concepts including security threats, securing network resources, encryption technologies, securing communications and applications, and incident response. PRE/COREQ: CSEC 246. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 252 Introduction to Programming for Cybersecurity

(4 Credits, Fall)

Accelerated overview of programming, scripting, and relational database design for security professionals. PRE/COREQ: CSEC 248. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 255 Ethical Hacking and Countermeasures

(4 Credits, Spring)

Identifying weaknesses and vulnerabilities in target network systems and applying the information to defend against network attacks. PRE/COREQ: CSEC 252. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 257 Introduction to Digital Forensics

(4 Credits, Spring)

Forensic methods and techniques in the collection, processing, and analysis of digital evidence. PRE/COREQ: CSEC 255. (2 lecture hours, 4 lab hours, 4 credits)

CSEC 290 Cybersecurity Capstone

(4 Credits, Spring)

Advanced penetration testing methodologies and techniques in acquiring, processing, and analyzing data for various host, network, and mobile-based devices. PRE/COREQ: CSEC 257. (2 lecture hours, 4 lab hours, 4 credits)

Refer to [How to Read Course Descriptions](#) for an explanation of elements found in the course descriptions above.