

CYBR 3100: Principles of Cybersecurity

3 Credit Hours

Prerequisite: (CSE 1321 and CSE 1321L), and admission to the Cybersecurity major, Cybersecurity Minor, or Undergraduate Cybersecurity Certificate.

This course offers a foundation in the various technical and administrative aspects of Cybersecurity and provides the terminology and principles for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, as well as designing a consistent, reasonable cybersecurity system.

CYBR 3123: Hardware and Software Concepts

3 Credit Hours

Prerequisite: (CSE 1321 and CSE 1321L) or IT 1113

This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern languages.

CYBR 3153: Database Systems

3 Credit Hours

Prerequisite: (CSE 1322 and CSE 1322L) or IT 1113 or (IT 1114 and IT 1114L) and Cybersecurity major

The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.

CYBR 3200: Network Security

3 Credit Hours

Prerequisite: CYBR 3100 and Cybersecurity Major, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.

This course provides a complete foundation of the cybersecurity of networked information systems, providing a detailed examination of principles, theory, tools, techniques, and technologies used in network cybersecurity.