

**University of Arkansas - Fort Smith
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General Syllabus

CPSI 22533 Cyber Security

Credit Hours: 3

Lecture Hours: 1

Laboratory or other types of Hours:4

Prerequisite: CPSI21434 Configuring Network Devices

Effective Catalog: 2021-2022

I. Course Information

A. Catalog Description

Foundational knowledge of network security topics in Windows-based TCP/IP networks and familiarity with other operating systems, such as macOS, Unix or Linux.

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Configure identity and access control services to meet a given set of requirements
2. Install and configure wireless security settings to meet a given set of requirements
3. Compare and contrast basic concepts of cryptography
4. Apply automated security assessment tools and analyze their output
5. Discuss and explain managing risks and business continuity

B. University Learning Outcomes (ULO)

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will identify a problem or issue, then generate solutions/analysis of problems/issues evaluated.

Communication Skills (oral and written)

Students will compose coherent documents appropriate to the intended audience.

Ethical Decision Making

Students will identify ethical dilemmas and affected parties in the context of cybersecurity.

III. Major Course Topics

- A. Overview of the state of network security
- B. Organizational Security
- C. Cryptography
- D. Public Key Infrastructure
- E. Identity management, access management and controls
- F. Wireless and Physical Security Measures
- G. Host, Embedded and mobile system security
- H. Secure Network Access
- I. Risk Management, Disaster Recovery and Business Continuity