

COMPUTER & INFO SECURITY (CYBR)

CYBR 500 Computer Security Design **3 Credit hours**

The course covers technical and analytical skills to implement comprehensive computer security that encompass designing secure systems, information security, protecting information assets, managing computer security, risk mitigation strategies, and incident response.

Grade Mode: Normal Grading Mode

CYBR 510 Intro to Cybersecurity **3 Credit hours**

This course provides an overview of the cybersecurity field, the basic foundations of the current technology and its impacts along with the predominant threat components and remediation.

Grade Mode: Normal Grading Mode

CYBR 530 Cybersec Policies & Mgmt **3 Credit hours**

The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.

Grade Mode: Normal Grading Mode

CYBR 535 Cyber Risk **3 Credit hours**

The functions and purposes of the latest developments in cybersecurity are covered. Topics include design, implementation, testing industrial networks and applications to ensure their security and reliability.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 542 Cyber Operations **3 Credit hours**

Study of various concepts and aspects in choosing, deploying, supporting, troubleshooting, and securing various local and distributed components of cyber operation.

Pre-req: CYBR 530 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 615 Cyber Vulnerability Assess **3 Credit hours**

This course focuses on the complete cycle of enterprise security from identifying vulnerabilities, detecting application exploitation and post exploitation mitigations and analysis for an enterprise level cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 620 Cyberwarfare **3 Credit hours**

The course covers both offensive and defensive techniques pertaining to cybersecurity from techniques to find vulnerabilities and analyze the likelihood of an attack to developing solutions to secure cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 625 Applied Cryptography **3 Credit hours**

This course introduces fundamentals of cryptography, including classical ciphers, Shannon's perfect secrecy, DES, AES, public-key crypto (RSA), as well as advanced cryptographic schemes.

Grade Mode: Normal Grading Mode

CYBR 680 Research in Cybersecurity **3 Credit hours**

This course covers various research methods and current significant findings in the field of cybersecurity.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only

CYBR 681 Thesis **3 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a cybersecurity faculty.

Pre-req: CYBR 680 with a minimum grade of D.

Attributes: Thesis

Grade Mode: Credit/No Credit Grade Only

CYBR 685 Independent Study **1-4 Credit hours**

Faculty supervised, individualized course of study.

Grade Mode: Normal Grading Mode

CYBR 698 Internship **1-6 Credit hours**

Supervised work experience in Cybersecurity.

Grade Mode: Credit/No Credit Grade Only