

COMPUTER & INFO SECURITY (CYBR)

CYBR 500 Computer Security Design	3 Credit hours	CYBR 681 Thesis	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.		Investigate a research problem of theoretical interest and practical value under mentorship of a cybersecurity faculty.	
Grade Mode: Normal Grading Mode		Pre-req: CYBR 680 with a minimum grade of D.	
		Grade Mode: Credit/No Credit Grade Only	
CYBR 510 Intro to Cybersecurity	3 Credit hours	CYBR 685 Independent Study	1-4 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.		Faculty supervised, individualized course of study.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CYBR 530 Cybersec Policies & Mgmt	3 Credit hours	CYBR 698 Internship	1-6 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.		Supervised work experience in Cybersecurity.	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
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			