COMPUTER INFO TECH (CYBR)

CYBR 3320 Digital and Device Forensics 3 Credits (2 Lec, 3 Lab)
This course will help students understand the issues, techniques, and vulnerabilities of small scale (non-PC) digital device forensics. Emphasis will be placed on the forensically sound acquisition, preservation, analysis and presentation of small scale digital devices as evidence.
Course Type: Academic

CYBR 3340 Cyber Crime 3 Credits (2 Lec, 3 Lab)
This is an examination of Cyber Crimes and other abuses arising in a cyberenvironment. Traditional and contemporary forms of cybercrime will be explored, including hacking, insider threat, cyberbullying, hacktivism, cyberterrorism and others. Students will learn how computers can be either the target or the tool for committing cybercrimes. In addition, sociological and psychological aspects associated with cybercrime will be examined.
Course Type: Academic

CYBR 3371 Industrial Control System Security 3 Credits (2 Lec, 2 Lab)
This course provides students the basics of Industrial Control Systems (ICS) cybersecurity including comprehensive analysis on ICS architectures, risk, security vulnerabilities and effective mitigation strategies for ICS.
Course Type: Academic

CYBR 4310 Penetration Testing 3 Credits (2 Lec, 3 Lab)
This course provides students with methods of discovering ways of exploiting vulnerabilities to gain access to a system. Students will learn the methods, techniques, and tools to test the security of computer networks, infrastructure and applications.
Course Type: Academic

CYBR 4320 Cyber Defense Operations 3 Credits (2 Lec, 3 Lab)
This course is an examination of the concepts used in defending a network, and the basic tools and techniques that can be used to protect a network and communication assets from cyber threats.
Course Type: Academic

CYBR 4330 Virtualization and Cloud Security 3 Credits (2 Lec, 3 Lab)
This course includes an examination of how modern host virtualization is implemented, deployed, and used. Students will understand the interfaces between major components of virtualized systems, and the implications these interfaces have for security. Students will examine the technologies and services that enable cloud computing, different types of cloud computing models and the security and legal issues associated with cloud computing.
Course Type: Academic

CYBR 4350 Senior Project 3 Credits (2 Lec, 3 Lab)
This course is designed to integrate all previous coursework. Under the guidance of the professor, each student completes a practical exercise in a cybersecurity role.
Course Type: Academic