CYBERSECURITY (CYB)

CYB 010. INTRODUCTION TO CYBERSECURITY. (3 Credits)
This course provides fundamental knowledge about cybersecurity. Software vulnerabilities, threats, attacks, and their mitigation methods will be discussed. The course also focuses on general purpose operating system security and dependability. Cyber Law, Ethics, Secure coding and secure design principles will be discussed.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture
Area(s) of Inquiry: Information Literacy

CYB 100. INFORMATION ASSURANCE. (3 Credits)
This course is an introductory course in enterprise security and information assurance. The foundation of the course will be based on the three well-established security axioms - confidentiality, integrity, and availability. Security-related topics to be discussed include digital asset lifecycle management, cryptography, data classifications, privacy laws, application security, and ethics in information security. The course addresses evolving cybersecurity issues, individual privacy, and eCommerce security.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture
Area(s) of Inquiry: None

CYB 140. CRYPTOGRAPHY AND ETHICAL HACKING. (3 Credits)
Cryptography refers to secure information and communication techniques and algorithms. An ethical hacker is someone who is trained in the art and methodologies of attacking computer systems for the purposes of testing, auditing and securing the infrastructure. This course serves as an introduction to the techniques, mathematical foundations, and algorithmic implementation of cryptographic methods as well as the tools, code of conduct, and ethics of attacking systems.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): CYB 010 and CS 065 and (MATH 054 or MATH 050)
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture
Area(s) of Inquiry: None