

COMPUTER SCIENCE & INFORMATION (CIS)

CIS 3213 - Introduction to Cybersecurity (3 Credits)

Exposes students to fundamental aspects of security regarding cyber physical systems, so they can apply the techniques to tackle a broad scope of current and future security challenges. Students study several tools and techniques commonly used by hackers to compromise a system. Then they learn methods to defend against these attacks.

Prerequisite(s): COP 3003

CIS 3941 - Internship in Computer Science (3 Credits)

An experiential learning exercise that allows for practical application of knowledge acquired from the computer science software engineering curriculum or program. Applicable to both unpaid and paid internships held within the current academic year or subsequent summer. This work is usually completed off campus and the student will have a qualified supervisor at the site as well as a faculty mentor who will jointly evaluate the student's progress. Students are expected to have an internship or offer letter prior to the first day of class. Students without active internships will not be allowed to continue in the class.

Prerequisite(s): COP 3003

CIS 4368 - Intro to Database Security (3 Credits)

This course is designed to teach students how database systems are used, managed, and issues associated with protecting the associated data assets.

Prerequisite(s): COP 3710

CIS 4622 - Hands-on Cybersecurity (3 Credits)

This course covers hands-on skills for cybersecurity – how to perform common offense and defense activities on computer networks, penetration testing, software exploit basics, basic network forensics, and basics on incident response.

Prerequisite(s): COP 3003

CIS 5377 - Info. Security and Compliance (3 Credits)

Covers design, analysis and implementation of basic security tools to protect sensitive data and information. Includes encryption, decryption, operation modes, hash function, public certificate, one-time pad, secure storage, verification of information source, secure random number generation, and vulnerabilities and attacks.

CIS 6910 - Project (3 Credits)

Students will participate in an independent project, as determined with the approval of the faculty member.

CIS 6970 - Thesis (3 Credits)

Research under the supervision of a faculty advisor.