

COMPUTER INFO TECH (ITSY)

ITSY 1342 Information Technology Security 3 Credits (2 Lec, 2 Lab)

This course covers instruction in security for network computer hardware, software, virtualization, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses.

Topics may adapt to changes in industry practices.

Prerequisite with concurrency: ITNW 1325 or ITCC 1314 or Department Chair approval

Course Type: Technical

ITSY 2300 Operating System Security 3 Credits (2 Lec, 2 Lab)

This course covers the safeguarding of computer systems by demonstrating server support skills and designing and implementing a security system. Students will identify security threats and monitor network security implementations, and use best practices to configure operating systems to industry security standards.

Course Type: Technical

ITSY 2301 Firewalls and Network Security 3 Credits (2 Lec, 2 Lab)

Students will identify elements of firewall design, types of security threats and responses to security attacks using best practices to design, implement, and monitor a network security plan, as well as perform security incident postmortem reporting and ongoing network security activities.

Course Type: Technical

ITSY 2341 Security Management Practices 3 Credits (2 Lec, 2 Lab)

This course provides in-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan.

Course Type: Technical

ITSY 2342 Incident Response and Handling 3 Credits (2 Lec, 2 Lab)

This course presents an in-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures.

Course Type: Technical

ITSY 2343 Computer System Forensics 3 Credits (2 Lec, 2 Lab)

This course provides an in-depth study of system forensics including methodologies used for analysis of computer security breaches. It also includes gathering and evaluating evidence to perform postmortem analysis of a security breach.

Prerequisite(s): ITSY 1342, ITSY 2301 or Department Chair approval

Course Type: Technical

ITSY 2345 Network Defense and Countermeasures 3 Credits (2 Lec, 2 Lab)

This is a practical application and comprehensive course that includes the planning, design, and construction of a complex network that will sustain an attack, document events, and mitigate the effects of the attack. This is a capstone course.

Course Type: Technical

ITSY 2359 Security Assessment and Auditing 3 Credits (2 Lec, 2 Lab)

This course is the capstone experience for the security curriculum.

It synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place to assure regulatory compliance.

Course Type: Technical