

## Degree Description

Apply National Institute of Standards and Technology (NIST) guidelines and other best practices; develop backup/recovery procedures to provide for data security; use network operating system features to implement network security; identify computer and network threats and vulnerabilities and methods to prevent their effects; use tools to enhance network security; and use encryption techniques to protect network local and distributed systems data.

Identify sources of attacks; restore the system to normal operation; identify and prevent security threats; perform a postmortem analysis; identify computer investigation issues; and identify the roles and responsibility of the incident response team.

Appraise security plan to ensure appropriate level of protection; assess network security design; audit network system based on security design; use relevant tools to assure security requirements; and review security policies and procedures on a regular basis.

Develop a security plan; establish suitable level of protection; determine legal issues; implement network security design; and revise risk analysis and security plan.

Marketable Skills:

1. Understand and apply computing terminology and concepts used in the workplace- Critical Thinking/Communication;
2. Configure, use, and troubleshoot computer operating systems and/or application software Critical Thinking;
3. Identify & understand a variety of network and data communication devices, topologies, protocols and standards as well as Install, configure, and troubleshoot network servers in one or more network operating system environments;
4. Install and evaluate desktop and network security, Identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; and
5. Asses evaluation and risk management; Appraise security plan to ensure appropriate level of protection; assess network security design.

Semester I	Hours
<a href="#">ITSY 1342 Information Tech Security</a>	3 hours
<a href="#">ITSY 2342 Incident Response and Handling</a>	3 hours
<a href="#">ITSY 2359 Security Assessment &amp; Auditing</a>	3 hours
<a href="#">ITSY 2341 Security Management Practices</a>	3 hours
	<b>12 hours</b>

**Total hours: 12 hours**

## Course Descriptions

### **ITSY 1342 Information Tech Security**

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. Students will learn to ensure the physical security of file servers and other network components using best practices; develop backup procedures to provide for data security; use network operating system features to implement network security; describe the nature of computer viruses, their methods of spreading, and means of protecting networks from viruses; use relevant tools to provide for network security; and use encryption techniques to protect network data. Semester Hours 3 (2 lec/2 lab)

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### **ITSY 2342 Incident Response and Handling**

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 and modifying security measures., , Prerequisites: Take ITSY 1342 with a minimum, grade of C or better., , Semester Hours 3 (2 lec/2 lab)

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### **ITSY 2359 Security Assessment & Auditing**

Comprehensive experience for the security curriculum. Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems that ensure appropriate levels of protection are in place to assure regulatory compliance. Semester hours 3 (2 lec/2 lab)

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### **ITSY 2341 Security Management Practices**

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., Capstone course., , Prerequisites: Take ITSY 2359 with a minimum grade, of C or better., , Semester Hours 3 (2 lec/2 lab)

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