

INFORMATION TECHNOLOGY SECURITY (ITS)

ITS110 / Information Security Fundamentals

3 Credits / 4.0 Periods for Lecture & Lab

Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. Prerequisites: A grade of C or better in CIS126DL, or CIS126RH, or permission of Program Director. Corequisites: BPC270 or MST150++.

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ITS120 / Legal, Ethical and Regulatory Issues

3 Credits / 3.0 Periods for Lecture

Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security. Prerequisites: None.

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ITS240 / Ethical Hacking and Network Defense

3 Credits / 4.0 Periods for Lecture & Lab

Preparation for the EC-Council Certified Ethical Hacking examination. In-depth exploration of how to effectively protect computer networks from risks ranging from malicious infiltration to cyber-warfare. Includes examination of ethical hacking, relevant tools and methodologies, and its importance to network security. Resources to identify new computer network vulnerabilities and counter security strategies will be discussed as well as an overview of relevant computer crime laws and penalties. Prerequisites: A grade of C or better in ITS110, or CNT205, or CIS270, or CIS271DB, or CIS272DB, or permission of Instructor.

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ITS291 / Computer Forensics Foundations

4 Credits / 5.0 Periods for Lecture & Lab

Development of foundational computer forensic skills. Introduction to preserving, identifying, extracting, interpreting, and documenting computer data as part of a forensically sound analysis. Examination of the physical and logical structure of hard drives. Study of the logical structure of Windows-based file systems and common applications. Introduction to the logical structure of Unix/Linux-based file systems and common applications of commercial forensic tools. Prerequisites: A grade of C or better in BPC170 and ITS110 or permission of Instructor.

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ITS292 / Advanced Computer Forensics

4 Credits / 5.0 Periods for Lecture & Lab

Advanced computer forensics analysis techniques with commercial tools. Introduction to open-source forensic tools. Emphasis on data recovery from complex applications and media types. Study of the logical structure of Unix/Linux-based file systems. Advanced search techniques. Analysis of unallocated space, compound files, and NTFS artifacts.

Prerequisites: A grade of C or better in ITS291 or permission of Instructor.

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