Cyber Security (CFR, CSS)

COMPUTER FORENSICS (CFR)

(Computer Science & Technology Department)

CFR 221—Computer Forensics
2 lect., 2 lab, 3 cr.
This course will introduce the student to the accepted methods of properly conducting a computer forensics investigation, beginning with a discussion of ethics while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Students should have a working knowledge of hardware and operating systems (OSs) to maximize their success on projects and exercises throughout the text. Specific topics covered include: computer forensics and investigations as a profession, understanding computer investigations, the investigator's office and laboratory, current computer forensics tools, processing crime and incident scenes, digital evidence controls, working with windows and DOS systems, Macintosh and Linux boot processes and disk structures, data acquisition, computer forensic analysis, recovering image files, network forensics, e-mail investigations.
Prerequisite: CIT 112, CIT 118

CFR 222—Network Forensics
2 lect., 2 lab, 3 cr.
This course will introduce the student to the accepted methods of properly conducting a forensics investigation over a network. Students should have a working knowledge of networks, hardware, and operating systems (OSs) to maximize their success on projects and exercises throughout the text. Specific topics covered include: network forensics investigation overview, the Microsoft network structure, processing crime and incident scenes, digital evidence controls, data acquisition, forensic analysis, recovering image files, the registry structure, registry evidence, presenting the results.
Prerequisite: CIT 203, CFR 221

COMPUTER SECURITY SYSTEM (CSS)

(Computer Science & Technology Department)

CSS 223—Information Security
3 cr.
This course is designed to familiarize the student with the foundation utilized by most organizations in developing a management framework that will implement a secure, predictable and dependable system throughout the organization. In addition, it will help students preparing to take the Certified Information Systems Security Professional Exam (CISSP). This is a first course in the introduction and study of Information security. A broad view of the field is provided along with enough detail to facilitate an understanding of the topic as a whole. All pertinent terminology is covered, along with the field's history and an overview of how to implement and manage an information security plan. Readings and cases are provided to further enable a student to master the text material while bringing realistic security issues to the forefront. Readings from current periodicals in the information security will also be reviewed.
Prerequisite: CIT 116

CSS 224—Network Perimeter Security
2 lect., 2 lab, 3 cr.
This course introduces firewalls and the network security components that can work together to provide an in-depth defensive perimeter around a local area network. Accordingly, this course examines firewalls in context with the other elements needed for effective perimeter security as well as security within a network. These include packet filtering, authentication, proxy servers, encryption, bastion hosts, virtual private networks, log file maintenance, and intrusion detection systems. Different firewall configurations will also be examined.
Prerequisite: CIT 203

CSS 226—Cyber Crime Investigations
2 lect., 2 lab, 3 cr.
This course is designed to provide the student with foundational knowledge of common techniques used by most cyber crime investigators. Procedural approaches and documentation will be covered. These procedures identify the accepted approaches to protect a digital crime scene/incident, process the collected data/information, ensure and document the integrity of the entire process. The cyber crime investigative procedures will be scrutinized to identify potential problems. The student will be instructed in how the

procedures and outcomes of those procedures create supporting documentation for a legal case. Prerequisite or concurrent enrollment in CFR 222