ITM SECURITY (ITMS)

ITMS 428
Database Security
Students will engage in an in-depth examination of topics in data security including security considerations in applications and systems development, encryption methods, cryptography law and security architecture and models.
Prerequisite(s): ITMD 421
Lecture: 3 Lab: 0 Credits: 3

ITMS 443
Vulnerability Analysis and Control
This course addresses hands-on ethical hacking, penetration testing, and detection of malicious probes and their prevention. It provides students with in-depth theoretical and practical knowledge of the vulnerabilities of networks of computers including the networks themselves, operating systems, and important applications. Integrated with the lectures are laboratories focusing on the use of open source and freeware tools; students will learn in a closed environment to probe, penetrate, and hack other networks.
Lecture: 3 Lab: 0 Credits: 3

ITMS 448
Cyber Security Technologies
Prepares students for a role as a network security analyst and administrator. Topics include viruses, worms, and other attack mechanisms, vulnerabilities, and countermeasures; network security protocols, encryption, identity and authentication, scanning, firewalls, security tools, and organizations addressing security. A component of this course is a self-contained team project that, if the student wishes, can be extended into a fully operational security system in a subsequent course.
Prerequisite(s): ITMO 440 or ITMO 540 with min. grade of C
Lecture: 2 Lab: 2 Credits: 3
Satisfies: Communications (C)

ITMS 458
Operating System Security
This course will address theoretical concepts of operating system security, security architectures of current operating systems, and details of security implementation using best practices to configure operating systems to industry security standards. Server configuration, system-level firewalls, file system security, logging, anti-virus and anti-spyware measures and other operating system security strategies will be examined.
Prerequisite(s): ITMO 456
Lecture: 2 Lab: 2 Credits: 3

ITMS 478
Cyber Security Management
In-depth examination of topics in the management of information technology security including access control systems and methodology, business continuity and disaster recovery planning, legal issues in information system security, ethics, computer operations security, physical security and security architecture & models using current standards and models.
Lecture: 3 Lab: 0 Credits: 3
Satisfies: Communications (C)

ITMS 479
Topics in Information Security
This course will cover a particular topic in Information Security, varying from semester to semester, in which there is particular student or staff interest. This course may be taken more than once but only 9 hours of ITMS 479/579 credit may be applied to a degree.
Credit: Variable

ITMS 484
Governance, Risk, and Compliance
This course is an in-depth examination of topics in information technology/information security governance, risk, and compliance including information assurance policies, standards, and compliance as well as the examination of security risk analysis and the performance of systems certification and accreditation.
Lecture: 3 Lab: 0 Credits: 3