

CYBERSECURITY AND INFORMATION TECHNOLOGY (CIT)

CIT 310. Enterprise System Administration

Credits: 3

Prerequisite: CIS 216.

Typically Offered: ONDEMAND

This class focuses on performing systems administration in an enterprise environment. Server and client security policy, imaging, remote administration, terminal services, and fault tolerance are among the topics covered.

CIT 320. Disaster Recovery & Incident Response

Credits: 3

Prerequisite: CIS 255 or instructor approval.

Typically Offered: SPRING

This class focuses on methods, policies and procedures needed to maintain systems availability. Response and mitigation to an incident will be explored as well as determining its root cause.

CIT 330. Virtualization

Credits: 3

Prerequisite: CIS 165 or instructor approval.

Typically Offered: SPRING

This course focuses on implementation, support, and maintenance of a virtualized infrastructure. Topics include virtual servers, virtual clients, virtual machine storage, virtual networking. Students gain hands on experience using these virtualization topics.

CIT 364. Network Defenses

Credits: 3

Prerequisite: CIS 165.

Typically Offered: ONDEMAND

In this course, students learn to design and configure a secure network environment using Virtual Private Networks, Intrusion Detection Systems, firewalls, and other network security technologies.

CIT 367. Cybersecurity Infrastructure Configuration

Credits: 3

Prerequisite: CIS 165 or instructor approval.

Typically Offered: FALL

This course provides students an understanding of how to install, configure, and manage firewalls for defense of enterprise network architectures. Students will learn the theory and configuration steps for setting up the security, networking, threat prevention, logging, and reporting features of next generation firewall technologies. In addition to gaining practical Next Generation Firewall experience, this course helps to prepare students for the Palo Alto Networks Certified Network Security Administrator (PCNSA) certification exam.

CIT 368. Cybersecurity Prevention & Countermeasures

Credits: 3

Prerequisite: CIT 367 or Instructor approval.

Typically Offered: SPRING

This course provides students with advanced information in installing, configuring, and managing firewalls for defense of enterprise network architecture. Students will learn the theory and extended configuration features necessary to set up traffic handling, advanced content/user identification, quality of service, global protect, monitoring/reporting and high availability of next generation firewall technologies. In addition to gaining practical next generation firewall experience, this course helps to prepare students for the Palo Alto Networks Certified Network Security Administrator (PCNSA) certification exam.

CIT 381. IT Project Management

Credits: 3

Typically Offered: SPRING

An investigation of the project management techniques and appropriate software used to effectively manage projects. This course covers the knowledge areas and other topics as defined by the Project Management Body of Knowledge (PMBOK).

CIT 410. Wireless Networking and Mobile Security

Credits: 3

Prerequisite: CIS 165 or instructor approval.

Typically Offered: FALL

This course examines the role wireless communication plays in business communications. It also explores enterprise management of wireless and mobile devices.

CIT 430. Cloud Computing & Security

Credits: 3

Prerequisite: CIS 165 or Instructor approval.

Typically Offered: FALL

This course introduces the use and administration of cloud computing platforms, as well as their security. Students gain experience using common cloud providers, such as Amazon Web Services and Azure.

CIT 450. Database and Web Application Security

Credits: 3

Prerequisites: CIS 204 and CSCI 160 or instructor approval.

Typically Offered: FALL

This course explores the vulnerabilities found in database servers and web applications. It also provides techniques for securing them.

CIT 460. Operating System Concepts

Credits: 3

Typically Offered: ONDEMAND

This course provides an overview of various operating system concepts. Topics covered include processes, interrupts, interprocess communication, virtual memory management, CPU scheduling and deadlocks.

CIT 469. Cybersecurity & Information Technology Capstone

Credits: 3

Typically Offered: ONDEMAND

A capstone course for the Cybersecurity and Information Technology BAS program. In this class students will complete a security based final project that reflects upon what they've learned in the program. Students will be asked to present their final project upon completion to the class. The final projects will be examined by their fellow classmates who will try to determine if the project is secure or not.

CIT 470. Penetration Testing

Credits: 3

Prerequisite: CIS 255.

Typically Offered: SPRING

This course provides theoretical and practical aspects of network and web application penetration testing. The course uses a hands-on approach to the different phases of penetration testing. Students will learn tools and methodologies typically used to exploit vulnerabilities.

CIT 475. Emerging Threats and Defenses

Credits: 3

Prerequisites: CIS 216, CIS 226 and CIS 255 or instructor approval.

Typically Offered: SPRING

In this course, students learn to implement a variety of tools, strategies, and techniques to defend and administer an IT infrastructure. Role based scenarios and challenges will be presented, allowing students to practice and apply their cybersecurity defense skills. Trending topics in cybersecurity will also be examined.