**COLLIN COLLEGE**

**COURSE SYLLABUS**

Course Information

**Course Number**: ITCC 2341

**Course Title:** CCNA Security

**Course Description:** Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls. Additionally, the Cisco CCNA Security curriculum is taken in preparation for the Implementing Cisco IOS Network Security (IINS) Certification Exam (640-453) leading to the Cisco CCNA Security Certification. Through in-class lecture and lab sections, expertise is developed in Protocol Sniffers/Analyzers, TCP/IP and common desktop utilities, Cisco IOS software, Cisco VPN clients, and Packet Tracer (PT). Lab required.

**Course Credit Hours:** 3

 Lecture Hours: 2

 Lab Hours: 3

**Prerequisite:** ITCC 1340 or CCENT (ICND1) Certification and consent of Associate Dean

**Student Learning Outcomes:**

* **State-mandated Outcomes:** Upon successful completion of this course, students will:
1. Explain network threats, mitigation techniques, and the basics of securing a network.
2. Secure administrative access on Cisco routers using AAA.
3. Implement firewall technologies to secure the network perimeter.
4. Configure IPS to mitigate attacks on the network.
5. Implement endpoint and Layer 2 security features.
6. Implement secure virtual private networks.
* **Additional Collin Outcomes:** Upon successful completion of this course, students will:
1. Describe the security threats facing modern network infrastructures, secure Cisco routers.
2. Implement AAA on Cisco routers using local router databases and external servers.
3. Mitigate threats to Cisco routers and networks using ACLs, implement secure network management and reporting, mitigate common Layer 2 attacks.
4. Implement the Cisco IOS Firewall feature set.
5. Implement the Cisco IOS IPS feature set.
6. Implement site-to-site IPSec VPNs.

**Withdrawal Policy:** See the current *Collin Registration Guide* for last day to withdraw.

**Collin College Academic Policies:** See the current *Collin Student Handbook.*

**Americans with Disabilities Act Statement:** Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

*Fall 2017 New*