ETRO 244 : Cisco CCNA Security

Credits: 4
Class Hours: 8 lecture/lab
Prerequisites: "C" or higher in ETRO 140C, or approval of instructor.
Recommended: ETRO 240B and ETRO 240C.
Description: CCNA Security is a hands-on career-oriented course preparing students with the associate-level knowledge and skills required to secure Cisco networks. Emphasis is placed on the development of a security infrastructure; identification of threats and vulnerabilities to networks; mitigation of security threats; and core security technologies. Students will experience hands-on installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality, and availability of data and devices.
Semester Offered: Spring
Course Student Learning Outcomes (CSLOs):
1. Describe and demonstrate mitigation of threats to networks using Access Control Lists (ACLs).
2. Describe the security threats facing modern network infrastructures and the role security policies play in security threat prevention.
3. Demonstrate implementation of Authentication, Authorization and Accounting (AAA) on network devices.
4. Explain and demonstrate the implementation of a site-to-site Internet Protocol Security (IPSec) Virtual Private Network (VPN).
5. Demonstrate implementation of both the software based Cisco Internetwork Operating System (IOS) firewall and the hardware based Adaptive Security Appliance (ASA).
6. Demonstrate implement of the Cisco IOS Intrusion Prevention System (IPS) feature set.
7. Demonstrate the mitigation of common Layer 2 attacks.
8. Demonstrate how to secure network device access.
9. Explain and demonstrate the implementation of secure network management and reporting.