ETRO 245 : Advanced Routing

Credits: 3
Class Hours: 6 lecture/lab
Prerequisites: "C" or higher in ETRO 140B, ETRO 140C, ETRO 240B, and ETRO 240C or valid CCNA certification, or approval of instructor.
Comments: May be repeated for a maximum of 6 credits.
Description: The purpose of this course is to develop the knowledge and skills needed to manage Internet Protocol (IP) traffic and access; understand scalable internetworks; configure advanced routing protocols including Border Gateway Protocol [BGP], Enhanced Interior Gateway Routing Protocol [EIGRP], and Open Shortest Path First [OSPF]; configuration of Internet Protocol version 6 (IPv6); and configuration of secure routing solutions to support branch offices and mobile workers. Comprehensive labs emphasize hands- on learning and practice to reinforce configuration skills.
Semester Offered: Spring
Course Student Learning Outcomes (CSLOs):
1. Describe the factors involved in a basic implementation for branch office and mobile worker connectivity.
2. Explain and implement path control technologies in a converged enterprise network.
3. Identify complex network requirements and design models for implementing advanced routing services in an enterprise network.
4. Identify and implement various mechanisms to configure Cisco Routers for integrated routing operations.
5. Summarize the steps and configure advanced Internet Protocol version 6 (IPv6) addressing.
6. Demonstrate implementation and impact of advanced routing protocols in a complex network.