CIS 413 – Internetworking Switching

Course Description

This course provides the student with the essential information to implement, monitor, and maintain switching in converged enterprise campus networks. The course includes the secure integration of VLANs, WLANs, and voice and video solutions onto campus networks.

Instructional Materials

CCNP SWITCH Lab Manual. (2010). Lab companion. Indianapolis, IN: Cisco Press.

Froom, R., Frahim, E., Sivasubramanian, B., (2010). *Implementing CISCO Switched Networks (SWITCH) Foundation Learning Guide*. (3rd ed.) Indianapolis, IN: Cisco Press.

Hucaby, D., Donohue, D., Wilkins, S. (2010) *CCNP SWITCH Cert Kit 642-813 Video Mentor*.

Course Learning Outcomes

1. Explain the various switches and campus design within the various OSI layers.
2. Summarize campus switched network constructions, support, and security.
3. Explain the fundamentals of multilayer switched network design.
4. Configure and implement VLANs in a Campus network environment.
5. Describe and configure spanning tree.
6. Analyze and configure and implement Inter-VLAN routing.
7. Describe and implement high availability in a campus infrastructure.
8. Describe wireless client access and configure switches to support voice technologies.
9. Understand and implement a secure campus switching environment.
10. Use technology and information resources to research issues in internetworking switching.
11. Write clearly and concisely about internetworking switching using proper writing mechanics.