COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2376

Course Title: CCNP TSHOOT - Maintaining and Troubleshooting IP Networks

Course Description: How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches. Lab required.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Prerequisites: ITCC 2374 and ITCC 2375 or consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students will be able to do the following:

1. Monitor, maintain, and troubleshoot a complex network. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
2. Plan and document the most common maintenance functions in complex enterprise networks. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
3. Develop a troubleshooting process to identify and solve problems in complex enterprise network. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
4. Select tools that best support specific troubleshooting and maintenance process in large, complex enterprise networks. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
5. Practice maintenance procedures and fault resolution in switched and routed environments. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
6. Troubleshoot IPv4 addressing services, IPv6 routing issues, network infrastructure services, network performance issues on routers and switches, and Chassis Virtualization and Aggregation Technologies. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)
7. Practice maintenance procedures and fault resolution in a secure infrastructure. (SCANS: F1,F3-5,F8-12,F14,F16) (SCANS: C1,C10-16,C18-20)

Secretary's Commission on the Acquisition of Necessary Skills (SCANS) - SCANS skills are a group of foundational skills and workplace competencies that the Secretary's Commission on the Acquisition of Necessary Skills established as vitally important for workplace success in the 21st century. In Collin's workforce programs, the SCANS skills are developed and reinforced throughout the curriculum to provide students with an opportunity to hone these skills/competencies in the context of their education. Over the course of an entire degree program, the successful student is expected to demonstrate all of the SCANS skills and competencies as part of their education. The SCANS Foundation Skills and Workplace Competencies are described at:
http://www.collin.edu/academics/programs/Workforce_SCANS_Skills_Syllabi_Code_Key.pdf

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.