Department:

Computer Support Technology

Course Description:

This course is designed to provide advanced instruction on the most commonly used operating systems. The course will cover installation and configuration of dual boot operating systems, system file configuration and editing, system files, and system conflict resolution.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Install and maintain Windows operating systems
2. Install and maintain Linux operating systems
3. Manage Windows operating systems in command line environment
4. Manage Linux operating systems in command line environment
5. Manage and maintain backups for operating systems
6. Apply updates for operating systems and software

Course Content:

A. Network Hardware
   1. What Is a Computer Network?
   2. Network Topology
   3. Networking Hardware
   4. Ethernet Technology
   5. Token Ring, FDDI, and Other LAN Technologies
   6. Network Design and Troubleshooting Scenarios

B. Network Protocols
   1. Low-Level Protocols
   2. TCP/IP
   3. IPX/SPX, Apple Talk, and Other Network Protocols
   4. Switching and Routing
   5. Network Management and Security

C. Network Applications
   1. Electronic Mail
   2. FTP and Telnet
   3. Multimedia Networking
   4. Internet
   5. Writing a Network Application

D. Network Operating Systems
   1. Introduction to Networking With Windows
2. Windows Domains
3. Other Network Operating Systems
4. Unix and Linux

E. Security And Forensics
   1. Cryptography and Security
   2. Security Hardware
   3. Security Software
   4. Forensic Techniques

F. Glossary
   1. Appendix A: Internet Milestones
   2. Appendix B: Extended ASCII Character Set
   3. Appendix C: Modems
   4. Appendix D: Network, Security, and Forensic Certifications
   5. Appendix E: Telecommunication Technologies
   6. Appendix F: Setting Up a Networking Repair Shop

Learning Assessments:

Competencies will be assessed by assignments, case problems, quizzes, chapter tests, hands-on projects, lab assignments, midterm test, and final test. The tests may be in the objective or problem solving format.

Instructional Materials:

Computer Networking for LANs to WANs: Hardware, Software and Security, Mansfield, 1st Ed.
ISBN: 9781423903161

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

On-Campus Students: At enrollment, any on campus student may complete a form that will allow them to self-identify any disability.

Off-Campus Regional Students: Self-identify your disability and accommodation needs with the Regional Coordinator and/or instructor, preferably prior to the first class meeting.

Online Students: Self-identify your disability and accommodation needs by contacting the Disabilities Coordinator. Students must provide their own programs to allow accessibility on their home computer.

Any student may also identify their disability by completing an online form located on the HCC homepage under Students Services/Resources/Disabilities. Questions should be directed to the Disabilities Coordinator.