

Course Outcome Guide (COG)

Approved 22 MARCH 2012

Course:	CIS 220 - Operating Systems - UNIX	Credits:	3	Instructor:	Ken Quamme
Course Description:	This course introduces Linux/Unix operating systems. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons will be enhanced using hands-on exercises.				
Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institutional
<ul style="list-style-type: none"> • Introduction to Linux • Characteristics of the LINUX system • Installation and selection of a distribution • Work environment • Available documentation • Basic commands • Different « shells » and environment variables • Processus management and surveillance • File system • Simplified system administration • The multi-windows 	<ul style="list-style-type: none"> • Demonstrate setup, configuration, and maintenance of Linux/UNIX servers. • Apply system security, shell scripts, and server backups. • Describe best practice in system administration including security policies and communication strategies with users. • 	<ul style="list-style-type: none"> • Participation • Case study analysis • Individual and group projects • Individual and group presentations • completion of exams 	Design, Install, and Administer a LAN consisting of the Linux operating system client and server computers.	<ol style="list-style-type: none"> 1. Assemble the components of a PC and install one or more operating systems resulting in a functioning PC. 2. Identify major telecommunications media types, including coaxial cable, UTP and fiber optic cable. 3. Design a small or medium sized computer network including media types, end devices and interconnecting devices. 4. Design basic wide area networks and work with a number of WAN encapsulations. 5. Perform basic configuration on 	

system				routers and Ethernet switches. 6. Perform basic tasks expected of a Network Administrator, including management of user accounts, shared resources and network security. 7. Work in a UNIX environment and successfully create and manage files. 8. Create a database, query a database, and output reports from a database in a database program. 9. Write a sample program in at least one programming language. 10. Effectively use the Internet for learning and tech support. 11. Have a basic understanding of TCP/IP.	
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