

Course Outcome Guide (COG)

Approved 22 MARCH 2012

Course:	CIS 165 - Fundamentals of Networking II	Credits:	3	Instructor:	Ken Quamme
Course Description:	<p>This course prepares students for jobs as network technicians and helps them develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide email services, web space, and authenticated access. Students learn about the soft skills required for help desk and customer service positions, and the final chapter helps them prepare for the CCENT certification exam. Network monitoring and basic troubleshooting skills are taught in context.</p> <p>Prerequisites: Networking for Home and Small Businesses</p>				
Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institutional
<ul style="list-style-type: none"> OSI Reference Model TCP/IP Reference Model Application Layer protocols Transport Layer Network Layer Link Layer and LANs Wireless LANs Multimedia Networking 	<ul style="list-style-type: none"> Describe networking standards, concepts, topology, and media including LANs, WANs, the OSI model, cabling, IP addressing, subnetting, network hardware and various protocols. Explain networking theory and protocols on common network systems. Apply IP routing concepts and router administration, distance vector and link state based IP routing algorithms, router interfaces, routing tables, and routing protocol configuration and network security 	<ul style="list-style-type: none"> Participation Case studies Network Simulations Individual and group projects Individual/group projects and presentations Completion of Chapter Assessments Final Assessment Skills-Based Assessment Course Feedback 	<ol style="list-style-type: none"> Understand the structure of the Internet and how communication occurs between hosts Install, configure, and troubleshoot CISCO IOS devices Plan a basic wired infrastructure to support network traffic Configure a server to share resources and provide common Web services Implement basic WAN 	<ol style="list-style-type: none"> Assemble the components of a PC and install one or more operating systems resulting in a functioning PC. Identify major telecommunications media types, including coaxial cable, UTP and fiber optic cable. Design a small or medium sized computer network including media types, end devices and interconnecting devices. Design basic wide area networks and work with a number of WAN 	

	<p>concepts.</p> <ul style="list-style-type: none"> • 		<p>connectivity using Telco services</p> <p>6. Demonstrate proper disaster-recovery procedures and perform server backups</p>	<p>encapsulations.</p> <p>5. Perform basic configuration on routers and Ethernet switches.</p> <p>6. Perform basic tasks expected of a Network Administrator, including management of user accounts, shared resources and network security.</p> <p>7. Work in a UNIX environment and successfully create and manage files.</p> <p>8. Create a database, query a database, and output reports from a database in a database program.</p> <p>9. Write a sample program in at least one programming language.</p> <p>10. Effectively use the Internet for learning and tech support.</p> <p>11. Have a basic understanding of TCP/IP.</p>	
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