SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 244S CONFIGURING ADVANCED WINDOWS SERVER
3 CREDIT HOURS

COURSE DESCRIPTION
Implementation, management, and maintenance of a Windows Server network infrastructure and configuration in a Windows Server environment. Includes implementation of routing, managing and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS). Securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates, network access infrastructure, and managing and monitoring network access are also included. Prepares students for the Microsoft Certification exam. Prerequisite: CIS 242S with a grade of "C" or better or department approval. Lab fee.

COURSE GOALS
The student will:

Bloom's Level			Program Outcomes
2	1.	Describe the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol architecture.	5
2	2.	Convert Internet Protocol (IP) addresses between decimal and binary.	8
3	3.	Calculate a subnet mask.	7
5	4.	Create subnets using Variable-Length Subnet Mask (VLSM) and Classless Inter-Domain Routing (CIDR).	6
5	5.	Modify a host to use a static IP address.	8
5	6.	Create IP addresses in a multiple subnet network.	7
2	7.	Describe the IP routing process.	5
5	8.	Modify a host to obtain an IP address automatically.	7
5	9.	Modify a host so that automatic private IP address configuration is disabled.	8
5	10.	Modify a host to use name servers.	6
5	11.	Rank common connectivity issues.	5
5	12.	Modify routing by using the Routing and Remote Access service.	3
4	13.	Analyze, manage, and monitor DHCP.	8
5	14.	Design, manage, monitor, and resolve host names using DNS.	6
5	15.	Defend network traffic by using IPSec and certificates.	5
5	16.	Modify network access.	7
4	17.	Analyze, manage, and monitor network access.	8

CORE VALUES
The Core Values are a set of principles that guide Edison State Community College in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

TOPIC OUTLINE
1. Review the suite of TCP/IP protocols
2. Assign IP addresses in a multiple subnet network

3. Configure a client IP address
4. Configure a client for name resolution
5. Isolate common connectivity issues
6. Configure routing by using routing and remote access
7. Allocate IP addressing by using Dynamic Host Configuration Protocol (DHCP)
8. Manage and monitor Dynamic Host Configuration Protocol (DHCP)
9. Resolve host names by using Domain Name System (DNS)
10. Manage and monitor Domain Name System (DNS)
11. Secure network traffic by using IPSec and certificates
12. Configure network access
13. Manage and monitor network access