

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

X Transfer Course X A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: CSIS 167 Designing Network Infrastructure

UNIT VALUE: 2

MINIMUM NUMBER OF SEMESTER HOURS: 40

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: None

COREQUISITE: None

RECOMMENDED PREPARATION: CSIS 164

SCOPE OF COURSE:

This course provides students with the knowledge and skills necessary to design a Microsoft Windows networking services solution for enterprise networks.

SPECIFIC COURSE OBJECTIVES:

Analyzing Business Requirements

Analyzing Technical Requirements

Designing a Windows 2000 Network Infrastructure

Designing for Internet Connectivity

Designing a Wide Area Network Infrastructure

Designing a Management and Implementation Strategy for Windows Networking

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. **Windows 2000 Networking Overview**
 - 1. Introducing Windows 2000 networking services
 - 2. Developing implementation and management designs
- II. **Developing a TCP/IP Networking Strategy**
 - 1. Role of TCP/IP in a network

2. Developing a TCP/IP implementation strategy
3. Developing a TCP/IP management strategy
4. Achieving TCP/IP business goals
- III. **Developing a DHCP Strategy**
 1. Role of Dynamic Host Configuration Protocol (DHCP) in an enterprise network
 2. Developing a DHCP implementation strategy
 3. Developing a DHCP management strategy
 4. Achieving DHCP business goals
- IV. **Developing a DNS Strategy**
 1. Role of Domain Name System (DNS) in a network
 2. Developing a DNS implementation strategy
 3. Developing a DNS management strategy
 4. Achieving DNS business goals
- V. **Developing a WINS Strategy**
 1. Role of Windows Internet Name Service (WINS) in a network
 2. Developing a WINS implementation strategy
 3. Developing a WINS management strategy
 4. Achieving WINS business goals
- VI. **Developing a Remote Access Strategy**
 1. Role of remote access in a network
 2. Developing a remote access implementation strategy
 3. Developing a remote access management strategy
 4. Achieving remote access business goals
- VII. **Developing a RADIUS Strategy**
 1. Role of RADIUS in a network
 2. Developing a RADIUS implementation strategy
 3. Developing a RADIUS management strategy
 4. Achieving RADIUS business goals
- VIII. **Developing a Connection Manager Strategy**
 1. Role of Connection Manager in a network
 2. Developing a Connection Manager implementation strategy
 3. Developing a Connection Manager management strategy
 4. Achieving Connection Manager business goals
- IX. **Developing an IP Routing Strategy**
 1. Role of IP routing services in a network
 2. Developing an IP routing implementation strategy
 3. Developing an IP routing management strategy
 4. Achieving IP routing business goals
- X. **Developing a Multicasting Strategy**
 1. Introduction to multicasting
 2. Role of multicasting in a network
 3. Developing a multicasting implementation strategy
 4. Developing a multicasting management strategy
 5. Achieving multicasting business goals
- XI. **Developing a Demand-Dial Routing Strategy**
 1. Role of demand-dial routing in a network
 2. Developing a demand-dial implementation strategy
 3. Developing a demand-dial management strategy
 4. Achieving demand-dial business goals
- XII. **Developing a VPN Strategy**
 1. Role of VPN in a network

2. Developing a VPN implementation strategy
 3. Developing a VPN management strategy
- XIII. **Developing an IPSec Strategy**
1. Role of IPSec in a network
 2. Developing an IPSec implementation strategy
 3. Developing an IPSec management strategy
 4. Achieving IPSec business goals
- XIV. **Developing a Connection Sharing Strategy**
1. Role of Connection Sharing in a network
 2. Developing a Connection Sharing implementation strategy
 3. Developing a Connection Sharing management strategy
 4. Achieving Connection Sharing business goals
- XV. **Developing a Proxy Server Strategy**
1. Role of Proxy Server in a network
 2. Developing a Proxy Server implementation strategy
 3. Developing a Proxy Server management strategy
 4. Achieving Proxy Server business goals

REQUIRED READING: Microsoft Official Curriculum – Designing a Microsoft Windows Networking Services Infrastructure

SUGGESTED READING: None

REQUIRED WRITING:

Problem solving exercises and skills demonstrated in computer homework assignments. A minimum of one page per homework assignment is required.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours a week practicing the skills learned in class on their home machines. The midterm and final are both take home exams requiring at least 10 hours to complete.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
 laboratory
 lecture-laboratory combination
 directed study

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes _ No ___ X ___

If yes, check all that apply:

- _____ Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- _____ Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- _____ Two-Way Video Conferencing (Two-way interactive video and audio)
- _____ One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- _____ Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Grades for courses are based upon final examinations, mid-term examinations, other tests, assignments, projects, and participation. Faculty will inform students of their grading policy at the beginning of each semester.

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes ___ No X Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Terrie Smith x2610

SIGNATURES:

SIGNATURES ON FILE