I. CATALOG INFORMATION

A. Discipline: COMPUTER NETWORKING SYSTEMS ENGINEERING (CNSE)

B. Subject Code and Number: CNSE M31

C. Course Title: MS Windows Network Server

D. Credit Course units:

Units: 3

Lecture Hours per week: 2.5

Lab Hours per week : 1.5

Variable Units : No

E. Student Learning Hours:

Lecture Hours:

Classroom hours: 43.75 - 43.75

Laboratory/Activity Hours:

Laboratory/Activity Hours 26.25 - 26.25

Total Combined Hours in a 17.5 week term: 70 - 70

F. Non-Credit Course hours per week

G. May be taken a total of: [X] 1 [ ] 2 [ ] 3 [ ] 4 time(s) for credit

H. Is the course co-designated (same as) another course: No [X] Yes [ ]
If YES, designate course Subject Code & Number:

I. Course Description:

Provides an in-depth, hands-on introduction to Microsoft Windows Server technical support. Covers server installation, server environment configuration, management of system policies, file system, partition, and fault tolerance. Includes protocols configuration, remote access services implementation, internetworking and intranetworking, and troubleshooting.

J. Entrance Skills

*Prerequisite: No [X] Yes [ ] Course(s)

*Corequisite: No [X] Yes [ ] Course(s)

Limitation on Enrollment: No [X] Yes [ ]

Recommended Preparation: No [ ] Yes [X] Course(s)
CNSE M30

Other: No [X] Yes [ ]

K. Other Catalog Information:

Prepares students for the current version of the Microsoft certification exam.

II. COURSE OBJECTIVES

Upon successful completion of the course, a student will be able to:

		Methods of evaluation will be consistent with, but not limited by, the following types or examples.
1	describe the system strategy for Windows operating system.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
2	demonstrate how to install and configure Windows operating system.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
3	create and implement system policies.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
4	create and manage partitions, file systems, and fault-tolerant volumes.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
5	demonstrate how to support running applications under Windows operating system.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
6	identify network components and describe their function on a Windows-based computer.	Quizzes Midterms Final exam Classroom project work

		demonstrating competency in this area
7	demonstrate how to install and configure network transport protocols.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
8	demonstrate how to install and configure network services on Windows operating system.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
9	demonstrate how to implement remote access service (RAS).	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
10	demonstrate how to install and configure Microsoft Services and Internet protocol features including IP Version 6.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
11	demonstrate how to install client software.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
12	demonstrate how to implement and troubleshoot directory replication.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area
13	recognize problems related to the boot process.	Quizzes Midterms Final exam Classroom project work

		demonstrating competency in this area
14	demonstrate how to determine the appropriate action to take for common problems.	Quizzes Midterms Final exam Classroom project work demonstrating competency in this area

III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
Lecture (must total 100%)		
20.00%	Installing and configuring Microsoft Windows operating system	1, 2, 4, 7, 11
20.00%	Managing system policies, partitions, and file systems	3, 4
14.00%	Managing fault tolerance and supporting both applications and the networking environment.	4, 5, 6, 7, 8
4.00%	Implementing Internet Protocol Version 6	10
8.00%	Implementing remote access, internetworking, and intranetworking	7, 8, 9
10.00%	Implementing interoperability with both non-Microsoft systems and network clients	7, 8, 9, 10, 11
10.00%	Implementing file synchronization, directory replication and configuring the system boot process	3, 12, 13
14.00%	Using Microsoft Windows troubleshooting tools	12, 14
Lab (must total 100%)		
12.00%	Install and configure Windows Server to meet the technical needs such as Dynamic Host Configuration protocol, Active Directory for secure sign-on, and Domain Name Service for Internet access	1, 2, 4
10.00%	Implement policies to support user access based on best practices and security access controls	1, 2, 3, 9, 10
10.00%	Configure backups, system restore and other fault tolerance configurations	1, 2, 4, 6, 12, 13
10.00%	Configure network protocols and applications on server to support Internet Protocol Version 6	2, 6, 7
12.00%	Configure server networking to support home users, and authenticated and trusted remote clients connecting to server	2, 3, 6, 7, 9, 10, 11
12.00%	Configure Microsoft server to support non-microsoft clients such as Linux, Apple, and tablet, and cell phone clients	2, 3, 7, 8, 9, 11
12.00%	Configure replication to support disaster recovery	2, 3, 4, 13, 14
22.00%	Utilize various server tools and utilities to manage various components such as processes, applications, disk performance, event and error management, user account controls, active directory, network connectivity, script management, and event logging	2, 3, 12, 13, 14

IV. TYPICAL ASSIGNMENTS

A. Writing assignments

Writing assignments are required. Possible assignments may include, but are not limited to:	
1	term paper on a topic such as implementing a server in a small business.
2	short answer class assignments on implementing, upgrading, and troubleshooting a server.

B. Appropriate outside assignments

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:	
1	field observations of network administration.
2	assigned simulation from text such as configuring Domain Name Services (DNS) and Dynamic Host Configuration Protocol (DHCP).

C. Critical thinking assignments

Critical thinking assignments are required. Possible assignments may include, but are not limited to:	
1	implement Windows Server based upon a specific design or configuration requirement.
2	solve various lab configuration scenarios dealing with user, file and folder access, network protocol connectivity, remote access, system partitions, synchronization and replication, and server customization.

V. METHODS OF INSTRUCTION

Methods of instruction may include, but are not limited to:

[X] Distance Education – When any portion of class contact hours is replaced by distance education delivery mode (Complete DE Addendum, Section XV)

[X] Lecture/Discussion

[X] Laboratory/Activity

[X] Other (Specify) Lecture notes
Study guides
PowerPoint presentations
"Check for understanding" assessments

[ ] Optional Field Trips

[ ] Required Field Trips

VI. METHODS OF EVALUATION

Methods of evaluation may include, but are not limited to:

☐ Essay Exam	☒ Classroom Discussion	☒ Skill Demonstration
☒ Problem Solving Exam	☒ Reports/Papers/ Journals	☒ Participation
☒ Objective Exams	☒ Projects	☒ Other (specify)

Hands-on lab assessment

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS

Stanek, William. Windows Server 2016: Essentials for Administration. Stanek and Associates, 2016.

Stanek, William. Windows Server 2016: Installing and Configuring. Stanek and Associates, 2016.

VIII. STUDENT MATERIALS FEES

☒ No ☐ Yes

IX. PARALLEL COURSES

College	*Course Number*	*Course Title*	*Units*
Santa Barbara City College	CIS 206	MS Windows Server System Administration	4
Mount San Antonio College	CISN 24	Windows Server Network & Security Administration	3
Antelope Valley College	CA 176	Windows Server Networking	3

X. MINIMUM QUALIFICATIONS

Courses in Disciplines in which Masters Degrees are not expected:
any bachelor's degree and two years of experience, or any associate degree and six years of experience.

XI. ARTICULATION INFORMATION

A. Title V Course Classification:

1. This course is designed to be taken either:

   ☐ Pass/No Pass only (no letter grade possible); or
   ☒ Letter grade (P/NP possible at student option)

2. Degree status:
   Either ☒ Associate Degree Applicable; or ☐ Non-associate Degree Applicable

B. Moorpark College General Education:

1. Do you recommend this course for inclusion on the Associate Degree General Education list?
   Yes: ☐ No: ☒ If YES, what section(s)?

   ☐

- [ ] A1 - Natural Sciences - Biological Science
- [ ] A2 - Natural Sciences - Physical Science
- [ ] B1 - Social and Behavioral Sciences - American History/Institutions
- [ ] B2 - Social and Behavioral Sciences - Other Social Behavioral Science
- [ ] C1 - Humanities - Fine or Performing Arts
- [ ] C2 - Humanities - Other Humanities
- [ ] D1 - Language and Rationality - English Composition
- [ ] D2 - Language and Rationality - Communication and Analytical Thinking
- [ ] E1 - Health/Physical Education
- [ ] E2 - PE or Dance
- [ ] F - Ethnic/Gender Studies

C. California State University(CSU) Articulation:

1. Do you recommend this course for transfer credit to CSU? Yes: [X] No: [ ]
2. If YES do you recommend this course for inclusion on the CSU General Education list?
   Yes: [ ] No: [X] If YES, which area(s)?

A1 [ ] A2 [ ] A3 [ ] B1 [ ] B2 [ ] B3 [ ] B4 [ ]

C1 [ ] C2 [ ] D1 [ ] D2 [ ] D3 [ ] D4 [ ] D5 [ ]

D6 [ ] D7 [ ] D8 [ ] D9 [ ] D10 [ ] E [ ]

D. University of California (UC) Articulation:

1. Do you recommend this course for transfer to the UC? Yes: [ ] No: [X]
2. If YES do you recommend this course for the Intersegmental General Education Transfer Curriculum (IGETC)? Yes: [ ] No: [X]

IGETC Area 1: English Communication

- [ ] English Composition
- [ ] Critical Thinking-English Composition
- [ ] Oral Communication

IGETC Area 2: Mathematical Concepts and Quantitative Reasoning

- [ ] Mathematical Concepts

IGETC Area 3: Arts and Humanities

- [ ] Arts
- [ ] Humanities

IGETC Area 4: Social and Behavioral Sciences

- [ ] Anthropology and Archaeology

- [ ] Economics
- [ ] Ethnic Studies
- [ ] Gender Studies
- [ ] Geography
- [ ] History
- [ ] Interdisciplinary, Social & Behavioral Sciences
- [ ] Political Science, Government & Legal Institutions
- [ ] Psychology
- [ ] Sociology & Criminology

IGETC Area 5: Physical and Biological Sciences (mark all that apply)

- [ ] Physical Science Lab or Physical Science Lab only (none-sequence)
- [ ] Physical Science Lecture only (non-sequence)
- [ ] Biological Science
- [ ] Physical Science Courses
- [ ] Physical Science Lab or Biological Science Lab Only (non-sequence)
- [ ] Biological Science Courses
- [ ] Biological Science Lab course
- [ ] First Science course in a Special sequence
- [ ] Second Science course in a Special Sequence
- [ ] Laboratory Activity
- [ ] Physical Sciences

IGETC Area 6: Language other than English

- [ ] Languages other than English (UC Requirement Only)
- [ ] U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)
- [ ] U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)

XII. REVIEW OF LIBRARY RESOURCES

A. What planned assignment(s) will require library resources and use?

The following assignments require library resources:
Research, for term papers using the Library's print and online resources, on such topics as advanced switching features.

B. Are the currently held library resources sufficient to support the course assignment?

YES: [X] NO: [ ]

If NO, please list additional library resources needed to support this course.

XIII. PREREQUISITE AND/OR COREQUISITE JUSTIFICATION

CNSE M31: Not Applicable

XIV. WORKPLACE PREPARATION

Required for career technical courses only. A career technical course/program is one with the primary goal to prepare students for employment immediately upon course/program completion, and/or upgrading employment skills.

Detail how the course meets the Secretary of Labors Commission on the Achievement of Necessary Skills (SCANS) areas. (For a description of the competencies and skills with a listing of what students should be able to do, go to: http://www.ncrel.org/sdrs/areas/issues/methods/assment/as7scans.htm)

The course will address the SCANS competency areas:

1. Resources: the students will identify, organize, plan and allocate resources through course work, the application of theory, and the completion of assignments.

2. Interpersonal: the students will work with other students in problem solving scenarios to establish collaborative, troubleshooting skills and strategies.

3. Information: the students will acquire and use information through a variety of assignments and practice applications.

4. Systems: the students will develop both a broad and detailed view of various technical systems and models.

5. Technology: the students will be exposed to various related technologies and be able to assess and analyze relevant issues.

The course also addresses the SCANS skills and personal qualities:

1. Basic Skills: the students will be required to read, perform limited mathematical operations, listen, and speak in this course.

2. Thinking Skills: the students will be required to think creatively, make decisions, solve problems, visualize, and know how to learn and reason by satisfactorily completing the objectives of this course.

3. Personal Qualities: the students will be expected to act responsibly, exhibit good self-management skills, and conduct themselves with honesty and integrity throughout all aspects of the course.

XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM

1. Mode of Delivery

[X] Online (course will be delivered 100% online)

[X] Online with onsite examinations (100% of the instruction will occur online, but examinations and an orientation will be scheduled onsite)

[X] Online/Hybrid (a percentage of instruction will be held online and the remaining percentage of instruction will be held onsite)

[ ] Lab activities will be conducted onsite

[ ] Televideo (Examinations and an orientation will be held onsite)

[ ] Teleconference

☐ Other

2. Need/Justification

   Improve general student access.

3. Describe how instructors teaching this course will ensure regular, effective contact with and among students.

   Students will use VCCCD approved CMS system to support chat and discussion board, assignments, labs, study guides, lecture notes, and other downloadable curriculum support content.

4. Describe how instructors teaching this course will involve students in active learning.

   Students may perform interactive online activities, engage in discussion groups, participate in chat rooms, submit written assignments via email, perform computer lab simulations, and other electronically-based assignments. Online videos include computer system administration videos to reinforce online learning and provide additional avenues for active learning. Students may turn in assignments based on assigned videos. Students may also be tested on video assignments.

5. Explain how instructors teaching this course will provide multiple methods of content representation.

   Instructors will provide web-based materials, computer simulations, interactive online assignments and others methods as determined by the instructor, in addition to the more traditional materials and resources. Microsoft certification aligned learning is supported by various Microsoft tools in collaboration with Wiley Publishing. These tools utilize simulations, test engines, video, and other content to reinforce Microsoft windows system administration concepts.

6. Describe how instructors teaching this course will evaluate student performance.

   Methods of evaluation may consist of electronic assessments, exams and/or assignments, participation in chat sessions and/or asynchronous discussion forums, submission of written work electronically, assignment write-ups of computer network simulations, and other evaluation methods as determined by the instructor. Instructor may also evaluate performance via on-site quizzes and exams.

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

CNSE M31: Not Applicable

XVII. STUDENT MATERIALS FEE ADDENDUM

CNSE M31: Not Applicable

XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041

CNSE M31: Not Applicable

XIX. CURRICULUM APPROVAL

Course Information:

Discipline:

COMPUTER NETWORKING SYSTEMS ENGINEERING (CNSE)

Discipline Code and Number: CNSE M31

Course Revision Category: Outline Update

Course Proposed By:

Originating Faculty Edmond Garcia 11/09/2017

Faculty Peer: Edmond Garcia 11/09/2017

Curriculum Rep: _____

Department Chair: Navreet Sumal 11/09/2017

Division Dean: Howard Davis 11/16/2017

Approved By:

Curriculum Chair: Jerry Mansfield 03/07/2018

Executive Vice President: Julius Sokenu 03/17/2018

Articulation Officer: Jodi Dickey 02/28/2018

Librarian: Mary LaBarge 02/28/2018

Implementation Term and Year: Fall 2018

Approval Dates:

Approved by Moorpark College Curriculum Committee: 03/06/2018

Approved by Board of Trustees (if applicable): _____

Approved by State (if applicable): 03/22/2018