

**OAKTON COMMUNITY COLLEGE
GENERIC COURSE SYLLABUS**

I.	<u>COURSE PREFIX</u>	<u>COURSE NUMBER</u>	<u>COURSE NAME</u>	<u>CREDIT</u>	<u>LECTURE</u>	<u>LAB</u>
	CNS	205	Microsoft Implementing and Administering Security in a Windows Network	3	3	1
	(Formerly LAN 205)					

II. PREREQUISITE:

CNS 120 (Formerly LAN 120) or LAN 173 or consent of instructor, coordinator or program chair.

III. COURSE (CATALOG) DESCRIPTION:

This course provides students with the knowledge and skills to implement, manage, maintain, and troubleshoot security in a Windows Server network infrastructure. Students learn to plan and configure a Windows Server public key infrastructure (PKI) and plan security templates based on computer role (e.g., SQL Server computer, Microsoft Exchange Server computer, domain controller, Internet Authentication Service (IAS) server, and Internet Information Services (IIS) server). The course covers the most recent release of Windows and is one of the elective examinations that are required in Microsoft Certified Systems Engineer (MCSE), Windows curriculum and Microsoft Certified Systems Engineer (MCSE) Security Windows curriculum.

IV. LEARNING OBJECTIVES:

Upon completing this course, students will be able to:

1. Configure security templates and Deploy security templates.
2. Troubleshoot security template problems.
3. Configure IPSec policies to secure communication between networks and hosts.
4. Plan the deployment of service packs and hot fixes.
5. Configure IPSec policies to secure communication between networks and hosts.
6. Deploy and manage and troubleshoot IPSec
7. Plan and implement security for wireless networks.
8. Deploy, manage, and configure SSL certificates, including uses for HTTPS, LDAPS, and wireless networks.
9. Renewing certificates and obtaining self-issued certificates instead of publicly issued certificates.
10. Configure security for remote access users.
11. Plan and configure authentication and authorization.
12. Install, manage, and configure Certificate Services.
13. Configure authentication for secure remote access, such as PAP, CHAP, MS-CHAP, MS-CHAP v2, EAP-MD5, EAP-TLS, and multifactor authentication that combines smart cards and EAP.

V. ACADEMIC INTEGRITY:

Students and employees at Oakton Community College are required to demonstrate academic integrity and follow Oakton's Code of Academic Conduct. This code prohibits:

- cheating
- plagiarism (turning in work not written by you, or lacking proper citation)
- falsification and fabrication (lying or distorting the truth)
- helping others to cheat
- unauthorized changes on official documents
- pretending to be someone else or having someone else pretend to be you
- making or accepting bribes, special favors, or threats, and
- any other behavior that violates academic integrity.

There are serious consequences to violations of the academic integrity policy. Oakton's policies and procedures provide students a fair hearing if a complaint is made against you. If you are found to have violated the policy, the minimum penalty is failure on the assignment and, a disciplinary record will be established and kept on file in the office of the Vice President for Student Affairs for a period of 3 years.

Details of the Code of Academic Conduct can be found in the Student Handbook.

VI. OUTLINE OF TOPICS:

- A. Planning, Configuring, and Troubleshooting Authentication, Authorization, and PKI
- B. Implementing, Managing, and Troubleshooting Security for Network Communications
- C. Implementing, Managing, and Troubleshooting Patch Management Infrastructure
- D. Implementing, Managing, and Troubleshooting Security Policies
- E. Plan group structure
- F. Configure security for remote access users.
- G. Plan and implement security for wireless networks.
- H. Deploy and manage IPSec policies.
- I. Configure IPSec policies to secure communication between networks and hosts.
- J. Plan IPSec deployment.

VII. METHODS OF INSTRUCTION:

Methods include lectures, class exercises, class discussion, hands-on lab exercises, and projects.

VIII. COURSE PRACTICES REQUIRED:

- Read course materials – textbook, and Self-Test
- Attend and participate in class lecture and lab.
- Complete required assignments, exercises, quizzes, and exams.
- Complete LAN projects.

IX. INSTRUCTIONAL MATERIALS:

- Textbook and Lab book: Microsoft Official Curriculum for Windows

- Current Self-Test Software
- Software manuals

X. METHODS OF EVALUATING STUDENT PROGRESS:

Quizzes, examinations, completion of lab assignments, exercises; and several LAN projects.

XI. OTHER COURSE INFORMATION:

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the ASSIST office in the Learning Center. All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program.