

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 234S HYBRID INFRASTRUCTURE I
3 CREDIT HOURS

COURSE DESCRIPTION

Introduction to hybrid infrastructures with an emphasis on directory services, identity and access management (IAM), policy-based management, and domain management. Additional topics include DNS configuration, IP address management, network connectivity, storage and file service management, and virtualization. Prepares students for Microsoft's Administering Windows Server Hybrid Core Infrastructure (AZ-800) certification exam. Prerequisite: CIS 211S with a grade of "C" or better and CIS 214S with a grade of "C" or better.

COURSE GOALS

The student will:

Bloom's Level		Program Outcomes
3	1. Implement server workloads by managing local and remote administration tools, configuring essential roles and features, and performing routine maintenance tasks.	5, 6
3	2. Administer directory services, user and computer accounts, organizational units, and delegated administration.	5, 6
4	3. Maintain the health of directory services by monitoring replication, managing backup and restore operations, and diagnosing common issues.	3, 5, 6
5	4. Evaluate group policies for user and computer environments by assessing policy design, configuration, and troubleshooting outcomes.	3, 5, 6
3	5. Configure essential server networking components, including IPv4/IPv6 addressing, DHCP, DNS, and name resolution to ensure reliable communication across hybrid environments.	5, 6
5	6. Design secure and reliable network solutions using effective configuration and troubleshooting practices.	5, 6
3	7. Configure and manage storage solutions and file services.	5, 6
4	8. Analyze advanced storage technologies, including Storage Spaces, RAID configurations, and storage replication.	5, 6
5	9. Configure virtual machines, virtual networks, and integration with cloud services to optimize resource utilization and scalability.	3, 5, 6
5	10. Design advanced virtualization solutions, optimizing for high availability, disaster recovery, performance, security, and cost-efficiency.	3, 5, 6

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. Introduction to Hybrid Infrastructure

2. Directory Services
3. Identity and Access Management
4. Policy-based Management
5. Domain Management
6. Server Management in a Hybrid Environment
7. DNS Configuration and Management
8. IP Address Management
9. Network Connectivity
10. Storage and File Services
11. Advanced Storage Solutions