Hybrid Systems

2023-2024 Catal

[ARCHIVED CATALOG]

SVAD 230 - Hybrid Systems

PREREQUISITES: SVAD 150 - Cloud Foundations and (NETI 104 - Introduction to Networking or NETI 105 - Network Fundamentals or NETI 109 - Networking I)
PROGRAM: Cloud Technologies
CREDIT HOURS MIN: 3
LECTURE HOURS MIN: 2
LAB HOURS MIN: 2
DATE OF LAST REVISION: Fall, 2020

Hybrid Systems covers the fundamentals of building a hybrid on- premises and cloud-based IT infrastructure. The course is designed to teach students how to optimize a hybrid IT infrastructure for security, cost, fault tolerance, and high availability. Students will explore course topics through a guided, hands-on approach.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Create a local network
2. Explain and implement IPv4 and IPv6
3. Explain and implement cloud-based DNS
4. Discuss routing fundamentals
5. Discuss switching fundamentals
6. Implement Virtual Private Clouds (VPCs) endpoints and VPC peering
7. Design and implement a Virtual Private Networks (VPNs) solution
8. Configure and manage Identity Management in a hybrid infrastructure
9. Configure and access storage in a hybrid infrastructure
10. Configure and access a database in a hybrid infrastructure
11. Explain security issues when implementing a hybrid network solution

COURSE CONTENT: Topical areas of study include -

- Local area network infrastructure
- Cloud-based network infrastructure
- Designing for a hybrid infrastructure
- Methodologies for connecting local and cloud-based infrastructures
- Security for hybrid Systems
- Implementing Identity Management in a hybrid network
- Hybrid databases
- Hybrid storage
- Load balancing
- Virtual Private Clouds (VPCs) and VPC endpoints
- Virtual Private Networks (VPNs)

Course Addendum - Syllabus (Click to expand)