Amrita School of Business

MBA - Systems

IT Infrastructure Management

Course Objectives

The course provides an introduction to technologies involved in implementing and managing an efficient data centre. The students are introduced to key concepts and technologies and best practices to improve the quality of ICT provision in an enterprise. The course covers the basic requirements, design, costs, implementation, monitoring and management of a data centre.

Course Outline

1. Data Centre – Basics
    a. Downtime – Causes and Cost
    b. Availability – Metrics and choices
2. Data Centre Architecture
    a. Requirements
    b. Design
    c. Network Infrastructure
    d. Maintenance
    e. Power Distribution
    f. HVAC
3. Data Centre Consolidation
    a. Server
    b. Storage
    c. Network
    d. Application
    e. Service
    f. Process
    g. Staff
    h. Phases of Consolidation
4. Data Centre Servers
    a. Server Performance Metrics
    b. Server Capacity Planning
    c. Best Practices in IT
    d. Server Security
    e. Server Administration
    f. Device Naming
    g. Load Balancing
    h. Fault Tolerance
    i. RAID

5. Storage and Security Management
    a. Security Management
    b. Identity and Access Management
    c. Network Security
    d. Security Information Management
    e. Storage Management
    f. Backup and Restore
    g. DAS
    h. NAS
    i. SAN
    j. IP-Based Storage
6. Disaster Recovery
    a. Phases
    b. Techniques
    c. Architecture
7. Virtualization
    a. Introduction
    b. Server Virtualization
    c. Network Virtualization
    d. Application Virtualization
    e. Storage Virtualization
    f. Desktop Virtualization
8. Introduction to IT Information Act 2000

Recommended book : Kailash Jayaswal – Administering Data Centers : Servers, Storage and Voice over IP.