Las Positas College
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Course Outline for CNT 7284

INFORMATION STORAGE AND MANAGEMENT

Effective: Spring 2015

I. CATALOG DESCRIPTION:
CNT 7284 — INFORMATION STORAGE AND MANAGEMENT — 4.00 units

Comprehensive study of storage technology in complex IT environments, with emphasis on the exam topics for the EMC Information Storage Associate Certification (EMCISA). Theory and hands-on activities of storage systems, storage networking technologies, archives, cloud computing, storage security, and managing storage infrastructure.

1.00 Units Lecture 3.00 Units Lab

Strongly Recommended
CNT 62A - Cisco Networking Academy CCNA I
with a minimum grade of C

Grading Methods:
Letter or P/NP

Discipline:

	MIN
Lecture Hours:	18.00
Lab Hours:	162.00
Total Hours:	180.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

Before entering this course, it is strongly recommended that the student should be able to:

A. CNT62A

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

1. identify, compare, and contrast major information storage architectures and technologies, and their function within the modern data center environment; identify, compare, contrast, configure, and troubleshoot storage networking technologies; plan and perform backup, replication, and archive tasks for virtualized and non-virtualized environments; describe and perform management, securing, and monitoring activities for the storage infrastructure.

V. CONTENT:
A.Introduction to information storage
1. Data center environment
2. RAID
3. Analyze protocols and performance of Network-Attached Storage

B. Intelligent Storage Systems
1. Fibre Channel Storage Area Network (FC SAN)
2. IP SAN and Fibre Channel over Ethernet (FCoE)
3. Network attaced storage (NAS)
4. Object-based and unified storage
5. iSCSI

C. Introduction to business continuity
1. Backup and archive
2. Local replication
3. Remote replication
4. Identifying security vunerabilities
5. Securing the storage infrastructure

D. Cloud computing
1. Securing the information infrastructure
2. Managing the information infrastructure
3. Securing the storage infrastructure
4. Managing the storage infrastructure

VI. METHODS OF INSTRUCTION:
A. **Demonstration** -
B. **Lecture** -
C. **Lab** -
D. **Directed Study** -

VII. TYPICAL ASSIGNMENTS:
A. Read the textbook chapter on RAID. For a given information storage scenario, select the optimum RAID configuration and discuss the pros and cons of your selection.
B. Log on to the NETLAB+ virtual laboratory. Configure the SAN storage for the given topology, troubleshoot, and demonstrate access to the SAN from the attached network hosts.

VIII. EVALUATION:
A. **Methods**

1. Exams/Tests
2. Quizzes
3. Lab Activities

B. **Frequency**

Weekly lab work

Periodic quizes or tests

Mid Term and final exam

IX. TYPICAL TEXTS:
1. Education Services , EMC *Information Storage and Management*. 2 ed., Wiley, 2012.

X. OTHER MATERIALS REQUIRED OF STUDENTS:
A. Association of Computing Machinery ACM.org student membership