



BILKENT UNIVERSITY
Department of Computer Technology and Information Systems
2016-2017 Spring Semester
Syllabus

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| Course Code | CTIS 485 |
| Course Name | Information Storage and Management |
| Course Credit | 4 (4 hrs. lecture in class) |
| Instructor | Dr. Seyid Amjad Ali (Section 1) Office: C222A, Tel: x5335 Office Hours: Wednesday 11:40-12:30, Thursday 10:40-11:30 e-mail: syedali@bilkent.edu.tr |
| Textbook and Resources | Information Storage and Management: Storing, Managing, and Protecting Digital Information in Classic, Virtualized, and Cloud Environments. EMC, Wiley 2012. EMC website: https://education.emc.com |
| Assessments | Attendance and Class Participation: 5% Assignments: 5% Quizzes (best 2 quizzes): 10% Midterm Exam: 30% Project: 10% MCQ Final Exam: 10% Final Exam: 30% |

Course Objectives:

This is a fundamental course in Dell EMC track that aims to introduce students to the essential concepts in information storage and management technologies. The course covers topics in storage systems, storage networking and virtualization technologies, business continuity, storage security, monitoring and reporting related issues. A successful student is expected to understand and visualize the working mechanism behind commonly used storage systems and the underlying protocols, the concept behind intelligent storage systems, different data protection methods, different storage networking technologies along with their pros and cons, the need for virtualization and related concepts in virtualization, the importance of information availability, data archiving, backup and replication techniques, disaster recovery, the need for security to protect data and storage systems and finally the importance of reporting and monitoring in any data center.

Attendance Policy:

Attendance is compulsory in this course. Students are expected to attend at least 75% of all the lectures.

Makeup Policy:

Midterm or Final exam makeup may ONLY be given to students with a Bilkent University Health Center approved medical report. A failing student who will fail to show up either to take the final exam and/or to take the makeup exam will get a FX grade.

Minimum Requirements to Qualify for the Final Exam

A student who will fail to collect a total of 20/100 points from the weighted average of the midterm exam, assignments, quizzes AND attend less than 75% of all the lectures will get FZ grade i.e., he/she will NOT be eligible to enter the final exam.

Grading Scale:

The following grading scale will be used in this course. Passing grades range from A to D; F or FX is a fail.

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| <48 | F/FX |
| 48-54 | D |
| 54-58 | D+ |
| 58-62 | C- |
| 62-66 | C |
| 66-70 | C+ |
| 70-74 | B- |
| 74-78 | B |
| 78-82 | B+ |
| 82-86 | A- |
| >86 | A |

Changes:

The Information contained in this course syllabus is subject to change. Students will be informed about any changes either in the class and/or by e-mail and/or publishing at Moodle page. It is the responsibility of the student to regularly check the course Moodle page and his/her Bilkent e-mail account to learn about any course related updates.

COURSE OUTLINE

| <i>Week</i> | <i>Topics</i> |
|--------------------------------|-------------------------------------|
| 1 Feb. 6 - Feb. 10 | Introduction to Information Storage |
| 2 Feb. 13 - Feb. 17 | Data Center Environment |
| 3 Feb. 20 - Feb. 24 | Data Protection: RAID |
| 4 Feb. 27 - Mar. 3 | Intelligent Storage Systems |
| 5 Mar. 6 - Mar. 10 | Fibre Channel Storage Area Networks |
| 6 Mar. 13 - Mar. 17 | IP SAN and FCoE |
| 7 Mar. 20 - Mar. 24 | Network-Attached Storage |
| 8 Mar. 27 - Mar. 31 | Object-Based and Unified Storage |
| 9 Apr. 3 - Apr. 7 | Introduction to Business Continuity |
| 10 Apr. 10 - Apr. 14 | Backup and Archive |
| 11 Apr. 17 - Apr. 21 | Local Replication |

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| 12 Apr. 24 - Apr. 28 | Remote Replication |
| 13 May 1 - May 5 | Cloud Computing |
| 14 May 8 - May 12 | Securing the Storage Infrastructure Managing the Storage Infrastructure |
| May 17 - May 30 | FINAL EXAMS |