



Future Academy
Higher Future Institute for Specialized Technological Studies

Course Specification

1- Course information:

Course Code:	CSC 312
Course Title:	Information Storage and Management
Year/level	3 rd
Academic Programs	Computer Science Program (B.Sc.)
Contact hours/ week	(Theoretical = 2, Practical = 2 Total = 4)

2- Course aims:

This course aims to provide students with, solutions for data storage and data management. Students will learn how to manage advanced storage systems, protocols, and architectures, including storage area networks (SAN), network attached storage (NAS), fiber channel networks, internet protocol SANS (IPSAN), iSCSI, and content-addressable storage (CAS). This course covers intelligent storage systems, networking technologies business continuity solutions, information security, and storage infrastructure management.

3- Intended learning outcomes of the course (ILOs):

a- Knowledge and understanding:

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

- a1- Describe business drivers of digital transformation.
- a2 Describe storage infrastructure security and management processes.
- a3. Identify data protection solutions (replication, backup, migration, and archiving).

b- Intellectual skills:

On completing this course, the student should be able to:

- b1. • Explain intelligent storage systems and their types.
- b2 Evaluate various storage networking technologies and approaches

c- Professional and practical skills:

At the end of this course, the student will be able to:

- c1- Discuss how application software can support personal, workgroup, and enterprise business.
- C2- Discuss IS in the functional areas of business organizations. And Examples of specialized sys. for org. and individual use

d- General and transferable skills:

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

d1. Search, life-long, for information in a self-learning manner and refer to relevant literature efficiently.

d2- Acquire business skills.

4- Course contents

Topics/units	Number of hours		ILO's
	Lecture hours	Practical hours	
➤ Introduction to Information Storage Technology	2		a1,b2
➤ Introduction to Information Storage Technology	2		a1,a2, d2,
➤ Components of a Storage System Environment	4		c1. c2,
➤ Concept of RAID and its Components ➤ Different RAID levels	4		a1, a3,c1,d2,
➤ Intelligent Storage Systems ➤ Components, Intelligent Storage Array	4		c1, c2,d2,
➤ Introduction to Networked Storage	4		a1,b1, d2
➤ NAS, and IP-SAN	2		b1, c2,d2,
➤ Storage and Retrieval, Examples	4		a3, b2, c2,d1,d2
➤ Rev.	2		

5- Teaching and learning methods

Methods	ILO's																			
	a1	a2	a3	a4	a5	b1	b2	b3	b4	b5	c1	c2	c3	c4	c5	d1	d2	d3	d4	d5
Lectures	√	√	√			√	√				√	√				√	√			
Training visits																				
Practical sections		√	√			√	√				√	√				√	√			
Self-learning		√				√														
Summer training																				
Assays and reviews	√	√	√			√	√				√	√				√	√			
Discussion groups																√	√			

6- Teaching and learning methods for Low-achieving students

- Extra teaching hours for those who need help
- More quizzes to assess their ability for understanding the course
- Encourage the team work for those students with other advanced ones to increase their participation and understanding

7- Student assessment

Assessment method	Date	Grade weight (%)	ILOs
Written Examination		60	a1, a2, ,b1,b2, ,c1, c2,
Mid-Term Examination		10	a1, a2,a4 ,b1,b2,c1,
Practical/Laboratory Work:		15	a2, a3,,b1,b2 ,c2
Assignments/Classwork:		10	a1, a2 ,b1,b2,,c1,d1
Others		5	b2,b3 ,c1, d2
Total:		100 %	

8-List of references

8.1. Student notebooks:

Lecture Notes

8.2. Essential textbooks:

Information Storage and Management: Storing, Managing, and Protecting Digital Information in Classic, Virtualized, and Cloud Environments, editing by EMC Proven Professional, 2nd Edition

8.3. Recommended textbooks:

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8.4. Journals, Periodical and Reportsetc.

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8.5. Websites

<https://www.ictacademy.in/pages/Information-Storage-and-Management.aspx>

<https://www.solarwinds.com/resources/it-glossary/it-storage>

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