

Course Syllabus

Course Title: **Business Data Communications**

Course Code: **MIS 502**

Pre-requisites: **None**

Credit Hours: **3 Credit Hours**

Level Course: **Level 1**

Instruction Mode: **Online Course**

Class Schedule: **Section 493** Wednesday 7 pm – 10 pm

Course Description:

This course provides students with concepts of computer networks management and data communications. It covers network architecture, Internet models, data and signals, network types, network security management, design and management of networks.

Course Objectives:

At the end of the course, the students will be able to:

- Build an understanding of the fundamental concepts of computer networking.
- Familiarize the student with the basic taxonomy and terminology of the computer networking area.
- Introduce the student to advanced networking concepts, preparing the student for entry Advanced courses in computer networking.
- Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.

Course Learning Outcomes (CLOs):

After completing this course the student must demonstrate the knowledge and ability to:

1. Independently understand basic computer network technology.
2. Understand and explain Data Communications System and its components
3. Define and analyze the structure of a network
4. Describe the role of each layer in the OSI and TCP/IP models
5. Describe the role of the OSI model's transport layer including TCP and UDP protocol
6. Identify the different types of network topologies and protocols.
7. Identify the different types of network devices and their functions within a network.
8. Understand and building the skills of subnetting and routing mechanisms.
9. Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation.

Teaching Methods:

The course will be based on the following teaching and learning activities: • Lectures covering the theoretical part using PowerPoint presentations • Case studies • Review questions

Textbook:

FitzGerald, Dennis, Durcikova: Business Data Communications and Networking: 12/13/14th Edition, 2017/2018/2020, ISBN: 978-1-119-36883-0

References:

McCabe James (2007). Network Analysis, Architecture, and Design, Second Edition. Morgan Kaufmann Publishers

WEEK	TOPICS	Date
3	Introduction to Data Communications -- Ch (1 , 2)	3/2/2021
4	Physical Layer-- Ch 3	10/2/2021
	Data Link Layer – Ch 4	
5	Network and Transport Layers – Ch 5	17/2/2021
	Network Design—Ch 6	
6	Article Presentation	24/2/2021
7	Midterm Exam	3/3/2021
8	Wired and Wireless Local Area Networks—Ch 7	10/3/2021
9	Backbone Networks—Ch 8	17/3/2021
10	Wide Area Networks—Ch 9 First project draft Submission	24/3/2021
11	The Internet—Ch 10	31/3/2021
12	Network Security – Ch 11	7/4/2021
13	Network Management—Ch 12	14/4/2021
14	Project presentation Final project Submission	21/4/2021
15	Final Exam	27/4/2021

Grading Policy:

	Assessment Task (Quiz, Test, Exams)	Week Due	Proportion of Final Assessment
1	Article Presentation	6	10%
2	Research Paper Presentation	14	20%
3	Midterm exam	7	30%
4	Final Exam	15	40%
Total			100%

Attendance Policy:

The student presents himself to the denial of entry of the Final Exam in the event of his absence by more than 25% of the total lectures and that is the decision of the Council of the College.

Instructor Information:

Name: **Dr. Amani K. Samha**

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Office Hours: Online as needed.

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