Course Syllabus

BMOB3311
Wireless Network

1st Semester 2020/2021

Course Information

Course ID: BMOB3311

Credits Hrs.:   3 Hrs

Instructor: Iyad H. Alshami

Meeting Times: Tuesday:
                        Thursday:

Exam Time   Tuesday, June 18th ,2019
                        08:30 – 10:30

Course Description

- This course is an introductory course in computer networks and wireless networking.

- Students will gain fundamental knowledge and understanding of the basic principles of data communication and computer networking such as network architectures, protocols, and applications.

- Furthermore, it will introduce to the concepts, terminology, and approaches used in wireless networks systems such as signal propagation and wireless networking standards such as 2.5G, 3G and IEEE 802.1.

- At the end of the course, the student will be familiar with a wide variety of computer network fundamentals, concepts and protocols, and detailed knowledge of some of these fundamentals.

Course Objectives

- This course is designed to achieve a number of goals for each student:
    - To introduce the fundamentals of the *theory and practice* of computer network, internet architecture, and how it works.

    - To exposure the network standards and its layers:
        - *OSI Model*.
        - *TCP/IP Model*.

    - To understand the IP address and IPv4 routing algorithms

    - To experience the fundamentals of the wireless communications systems, the wireless network architectures, protocols, and applications. In addition to the wireless networking standards such as: 2.5G, 3G, IEEE 802.11, IEEE 802.15, IEEE 802.16/WiMAX.

Course's Textbook & Reference

- **Text Book:**
  - "*Computer Networking A Top-Down Approach*", James F. Kurose and Keith W. Ross, 7th Edition, 2017.

- **Additional Book:**
  - "*Wireless Communications: Principles and Practice*", T.S. Rappaport, Prentice Hall, 2nd edition, 2002.

Teaching Methods

- Video Lectures,
- Assignments,
- Discussion,
- Quizzes & Examination.

Course Grades

Criterion	Weight
Course Activities	**50%**
• **10% Attendance & Course participation** • **10% for Quizzes** • **15% Assignments & Worksheets** • **15% Research Report**	
Final Exam (eExam)	**50%**
Total	**100%**

Course Outline & The Tentative Schedule

Week	Topic	Book Chapter
1 2	Computer Networks and the Internet	1
3 4	Application Layer	2
5 6	Transport Layer	3
7 8	The Network Layer - Data Plane	4
9 10	The Network Layer: Control Plane	5
11 12	The Link Layer and LANs	6
13 14 15	Wireless and Mobile Networks	7
16	Final eExam	

Course Requirements:

- According to university regulation attending all the course meetings is compulsory.
  - **Watch** the **video lectures** completely
  - **Participate** in **all the course activities**

- There is a predetermined schedule for the course activities.
  - **No excuses** for missing the quizzes.
  - **No excuses** for exceeding the assignments deadline.
  - **No grads** for copied assignments

- Review the previous classes.

Course's Wisdom

In Your life:

You need fun to enjoy it

You need patience to pass it

You need seriousness to achieve it