



Philadelphia University
Faculty of Administrative & Financial Sciences
Department of Business Networking and Systems Management

<u>Course Syllabus</u>	
Course Title: Wireless Computer Networks	Course code: 0371427
Course Level: Fourth Year	Course prerequisite(s) and/or co-requisite(s): Advanced Programming (2) 0371212
Lecture Time:	Credit hours: (3) hours

<u>Academic Staff Specifics</u>				
Name	Rank	Office Number/Location, and Office Phone Number	Office Hours	E-mail Address
Dr. Hussein H. Owaied Al- Shemery	Ph.D.	32422 / Second Building Ext: 2631		hshemery@philadelphia.edu.jo

Course Description:

This course provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. The text used offers in-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11b/a/g/n implementation, design, security, and troubleshooting. Material is reinforced with hands-on projects at the end of each chapter from two of the principal wireless LAN vendors, Cisco and Linksys.

Course Objectives:

The CWNA certification course validates knowledge of wireless issues and related technology. After completing this course, you will know how to:

- The World of Wireless.
- Wireless Local Area Networks.
- Radio Frequency Fundamentals and Antennas.
- Physical Layer Standards.
- WLAN Management and Architectures.
- Wireless LAN Security Vulnerabilities.
- Implementing Wireless LAN Security.
- Managing a Wireless LAN.
- Other Wireless Networks.

Course Components

- **Books**

- **Text book:**

- CWNA Guide to Wireless LANs, Third Edition, 2013.

- **Authors:** Mark Ciampa.

- **Publisher:** Course Technology Incorporated.

- **Year of Publication:** 2013.

In addition to the above, the students will be provided with handouts by the lecturer.

Teaching methods:

- Lectures.
- Discussion groups.
- Tutorials.
- Debates.
- Homework's.
- Basic Research/Presentation.

Learning Outcomes:

- **Knowledge and understanding:**

- The data show is used to demonstrate practical exercise in the class to enable students see how it is done to save time and make lecture effective.

- **Cognitive skills (thinking and analysis).**

- The lecturer will present the material in the text book in an interactive way that stimulates the thinking side of students.
 - Conducting the learning objectives for each module components in clear manner to insure the material is digested by the students.

- **Communication skills (personal and academic).**

- For every lecture the last five minutes will be open for discussion. For further discussion, the students are welcome at the lecturer's office hour as appeared in first page.
 - Project Development: Groups of approximately two to three students develop projects, complete research, schedule meetings, write papers and reports, and deliver a 20-30 minute oral presentation using visual aids.
 - Group Management: Students work on group projects to practice interpersonal skills by communicating with group members, other groups, and peers outside the group.

Assessment instruments

- Short Reports and/or Presentations and/or Short Research Projects.
- Quizzes.
- Home works.
- Final examination.

<u>Allocation of Marks</u>

Assessment Instruments	Mark	Exam Date and Day
First Examination	20	
Second Examination	20	
Final Examination	40	
Attendance, Quizzes, Home works, and Reports and/or Research	20	
Total	100	

Documentation and academic honesty

This course is given from the textbook mentioned above. It is copyright protected. Students are encouraged to purchase this textbook from the university bookshop.

Definition of Plagiarism

Plagiarism is the unacknowledged borrowing of another writer's words or ideas.

How Can Students Avoid Plagiarism?

To avoid plagiarism, you must give credit whenever you use

- another person's idea, opinion, or theory;
- any facts, statistics, graphs, drawings—any pieces of information—that are not common knowledge;
- quotations of another person's actual spoken or written words; or
- Paraphrase of another person's spoken or written words.

If you are in doubt about whether what you are doing is inappropriate, consult your instructor. **A claim that “you didn't know it was wrong” will not be accepted as an excuse.**

Penalty for Plagiarism

The minimum penalty for an act of plagiarism is a 0 on the assignment, homework, and project. Serious cases of plagiarism may result in failure in the course as a whole, or expulsion from the university.

Course Academic Calendar

Week	Basic and support material to be covered	Homework/reports and their due dates
(1)	The World of Wireless	Students drag and add period
(2)	Wireless Local Area Networks	
(3)	Radio Frequency Fundamentals	
(4)	Antennas	
(5)	Physical Layer Standards	
(6) First Examination	Quick Review	First Examination
(7)	Media Access Control Layer Standards	
(8)	WLAN Management and Architectures	
(9)	Conducting a Site Survey	
(10)	Wireless LAN Security and Vulnerabilities	Delivery of scientific research
(11) Second Examination	Implementing Wireless LAN Security	Second Examination
(12)	Managing a Wireless LAN	
(13)	Wireless Network Troubleshooting and Optimization	
(14)	Other Wireless Networks	
(15)	Discuss Students Research Topics	
(16) Final Examination	Comprehensive review for all the topics learned in the whole semester to resolve obstacles that may appear while studying.	Final Examination

Expected Workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance Policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.