



Hashemite University
College of Engineering
Department of Computer Engineering
Computer Maintenance Lab
(1 Credit Hours/Dept. Compulsory)

Instructor		Grading info		Class Info	
Dr. Khalil Yousef		Assignments, Quizzes, In-lab Performance	40%	Days	Sec1: Monday
Email:	khalil@hu.edu.jo	Midterm Exam	20%	Time	Sec1: 2-5:00 PM
Office:	Dr. Khalil: E-3039 Eng. Sawzan: E-2060	Final	40%	Location	E-2060
Office hours:	See the Moodle Page				

Course	
Course Number:	110408442
Prerequisite:	Electronics 1 (110409240) and Computer Organization (110408340)
Textbook:	Lab Manual given by the lab supervisor and tools uploaded on the Moodle.
Course Description:	This lab gives an overview of PCs and their peripherals like mouse, keyboard, digital pads, and other pointing devices; computer anatomy; motherboards and processors, memories, computer assembly; hardware compatibility and connectivity issues, computer faults troubleshooting, diagnosing; Windows installation, administrative tools, and Software troubleshooting and diagnosing.
Specific Outcomes of Instruction (Course Learning Outcomes)	1. Understand the fundamentals and the main concepts of computer hardware and operating systems. SO's (3,6,7) 2. Assemble and disassemble a computer SO's (3,4,6). 3. Know about the current computer components technology trends and the market status. SO's (4, 6,7) 4. Troubleshoot a computer system and fix simple problems of improper operation in both hardware and software. SO's (3,6). 5. Learn about administrative tools and skills. SO(6)
Important material	- Lab manual - References - Uploaded tools and resources

References:

- Uploaded tools and resources on the Moodle.
- "A guide to writing as an engineer," by David Beer and David McMurrey, 4th Edition, John Wiley & sons, 2014.

Major Topics Covered and Schedule in Weeks:

Topic	# Weeks	# Contact hours*
Introduction.	1	3
PC hardware components	1	3
Motherboards.	1	3
Computer Assembly/Disassembly	1	3
Memory Upgrading and Troubleshooting	1	3
Secondary Storage	1	3
I/O Devices Installation and Support	1	3
Midterm Exam	1	3
Operating System (Introduction)	1	3
Operating System Installation (Windows 10, attended and unattended). + Create a Partition in Win 7 + Formatting	1	3

Data Backup and Recovery in Windows 7 and 10 + Win 7	1	3
Create/Delete/Modify User Accounts in Win 7 + Monitoring system resources. + Driver installation and troubleshooting + Working with CLI commands.	1	3
Design and conduct an experiment	1	3
Final Theoretical and Practical Exams	1	3
Total	14	42

Course Policy

- The lab will follow selected subjects as listed on the course schedule. Additional lecture notes and examples might be given and discussed in class as much as time permits.
- Students are responsible for the reading assignments from the lab manual and handouts
- Students are responsible for following up the lab materials
- Students are responsible for reading additional information and examples in order to understand the materials discussed in the labs.
- If you miss a lab, there won't be a makeup test, quiz, etc. and you WILL get a zero unless you have a valid excuse.
- Cheating and plagiarism are completely prohibited.
- If you miss more than 15% of classes you will automatically fail the class.

ABET Student Outcomes (SO) Addressed by the Course:

#	Outcome Description	Contribution
General Engineering Student Outcomes		
(1)	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. <i>(Previously SO's (a, e, k))</i>	
(2)	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. <i>(Previously SO's (c, k))</i>	
(3)	An ability to communicate effectively with a range of audiences. <i>(Previously SO (g))</i>	L
(4)	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. <i>(Previously SO's (f, h, j))</i>	H
(5)	An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. <i>(Previously SO (d))</i>	
(6)	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. <i>(Previously SO's (b, k))</i>	H
(7)	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. <i>(Previously SO (i))</i>	L

H=High, M= Medium, L=Low

Prepared By: Dr. Khalil Yousef

Date: 01/09/2019