Department of Mechanical Engineering

College of Engineering

University of Salahaddin

Subject: Information Technology

Course Book – Year 1

Lecturer's name: Dr.Gawhar Ibraheem Khidhir

Academic Year: 2023-2024

Course Book

1. Course name	**IT**
2. Lecturer in charge	**Dr.Gawhar Ibraheem Khidhir**
3. Department/ College	**Mechanical / Engineering**
4. Contact	**E-mail : gawhar_eng@yahoo.com,** **gawhar.khidhir@su.edu.krd** **Mob. 009647504811655**
5. Time (in hours) per week	**Four**
6. Office hours	**six**
7. Course code	
8. Teacher's academic profile	***B.Sc. of Mechanical engineering from university of Salahaddin _Erbil –Iraq at July 1996.** *** M Sc. In manufacturing processes from University of Salahaddin –Erbil –Iraq at Aprilr 2007.** *** PhD. In production from University of Salahaddin –Erbil –Iraq at July 2020.** **Research Interest:** **1. Efficiency of Dissimilar Friction Welded SAF 2205 Duplex Stainless Steel and 1045 Medium Carbon Steel Joints.** **2. Efficiency of dissimilar friction welded 1045 medium carbon steel and 316L**

	austenitic stainless steel joints.
9. Keywords	**IT,Hard ware ,soft ware,Internet**

10. Course overview: : **Information Technology (IT) is well established topic in mechanical engineering taught to the senior student (1st year), through a theoretical weekly program of two hour supported by two hours laboratory application. Its include:**

 General introduction, Hardware component, Microsoft office word, open Microsoft office word, its windows component, and its functions.
•Practically studying words window components and their function& standard toolbar. (Home ribbon)
•Keyboard keys functions (enter, backspace, space bar, shift …etc.) &formatting bar. Text selection, keyboard shortcut. •Table and border toolbars item. (table options, Sorting) •Drawing toolbars item. •Apply the above practices

Software, Microsoft PowerPoint, open it, PowerPoint window components.
•Open new slide, slide layout, and how to type in slides.
•Insert slides, new slide, slide number, diagram, and chart , Design, select slide design, change design, and custom effects. •Use the insert list and make an animation for your slide.•Apply the above practices.
. Internet , Electronic Spreadsheets – concept, packages, creating, editing, and saving a spreadsheet with MS-EXCEL •Work with a spreadsheet (MS-EXCEL) of in-built Statistical and other functions and writing expressions

11. Course objective: **Information Technology (IT) is well established topic in mechanical engineering taught to the senior student (1st year), through a theoretical weekly program of two hour supported by two hours laboratory application.**

 The objective of this course is to help students to understand technical concepts underlying current and future developments in information technology. Also develop an understanding of the computer component and how they are work together also the operating system softwares, programming languages and networks.

In the first four weeks, student will develop knowledge, understanding and skills about parts of computer theoretically and how to deal and operate them practically, to know how to use Macintosh or IBM PC , word processors and spreadsheet. In the last weeks, student will learn about

software and their type also experience with popular applications used on microcomputers also network devices and internet (power point presentation, internet in the laboratory).

Generally student will understand the basic concepts in the field of Computer Science, to develop competency in computer-related skills, and to provide the skills necessary to use computer systems as an effective tool for electronic communication, knowledge acquisition, and personal productivity, without the need for conventional programming languages

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12. Student's obligation
Student must attend lectures, For the award of credit points, it is necessary to pass the module exam.
The module exam contains:
- Homework and quizzes, mid-term exam, and final exam to theory and practical parts. Student attendance is required in all classes.

Students with less than 25% effort in continuous exam and/or 15% absent record are not allowed to enter the final exam.

13.
Different techniques will be used to attain above objectives, such as:

1- Using data show to explain lectures such as (introductions of each chapter, definitions, graphs, charts, especially power point presentations).

2-Using white board for important notes and special graphs.

3-students have to participate in classroom discussions; also the attendance of students will be taken in consideration.

                    Visiting the library on regular basis and checking the interne-4

Ministry of Higher Education and Scientific research

14. **Assessment scheme: In this system the maximum mark is 100%. The grading system is based on the summation of two categories of evaluation.**

The Grade is generated from the examination result(s) with the following

weights (w):

Continuous Exam :50% , Theory:30%,Practical :20%

Final exam: 50%, Theory :30%and practical:20%, Mid-Term exam: 20%

Homework, quizzes, and other activities in lecture hall and lab: 20%

15. Student learning outcome:
Students are expected at the end of the course will have the abilities to:
• **Identify the hardware components of a personal computer system**
• **List major input and output devices**
• **Explain the functions of processing, memory, storage, and communication devices**
• **Realize the significance of each hardware component in processing information**
• **Identify general trends in the development of the different hardware components of a computer**
• **General student knowledge (typing ability, excel, PowerPoint, data analysis, etc.)**
• **Introduction to the internet, e-mails, etc.**
• **Learning scientific software or computer programing depending on the department's requirements.**
• **Application of programs in computer laboratorie.**

16. Course Reading List and References:

▪ **Key references:**

1- Windows 7 office 2007 Hardware &Software.Dr.Ayman jameel Dr.Mohamad Ali .jordan. 2013.

2- Introduction to Information & Communication Technology Copyright © BHNwosu.2008 ,Edited: Busisiwe H Nwosu .On behalf of ALISON ABC-IT

3- Microsoft Windows XP office 2003.Dr.Mohamad Bilal Alzu. jordan.2006.

4-Microsoft Office Professional 97, published by EMC paradigm, 1998.

5-Parameswaran R., Computer Applications in Business, S.Chand and Sons company Ltd.New Delhi.

6-Alexis Leon, Mathews Leon, Fundamentals of Information Technology, Leon Vikas.New Delhi.

7-ITL Education Solutions Limited, Introduction to Information Technology,Pearson.Education, New Delhi.

▪ **Useful references:**

1 -Pyle, I.C. & Illingworth, V. (Eds) (1996).Oxford Dictionary of Computing, 4th Edition. Oxford / New York: Oxford UniversityDr. S. Loizidou - ACSC345

2-Discovering computers2003 concepts for a digital world , web and Xp Enhanced, ShellyCashmansries .

1	1/11/2023	Introduction, course description
2	8/11/2023	Data, Information, Knowledge, IT, ICT, IS, applications on office word
3	15/11/2023	Roles of computers, History of computers, Generations of computer, Types of computers
4	22/11/2023	Input unit, Output unit, System unit ,CPU(ALU,CU),
5	29/11/2023	Memory(RAM,ROM),Ports and bus applications on office power point.
6	6/12/2023	Software ,Types of software, Language translators

7	13/12/2023	Computer networking(Internet, Intranet, Extranet
8	20/12/2023	Types of networking(PAN,MAN,LAN,WAN)
9	27/12/2023	Network technologies, Advantages of Networking
10	3/1/2024	Network topologies. ring, star and bus, applications on Excel
11	10/1/2024	Transmission Media(wired , wireless)
12	17/1/2024	Repeater, Hub, Router, Bridge, switch, gateway
13	24/1/2024	Dial-Up, DSL, IDSN, Cable , Leased line, ATM
14	31/1/2024	Web browser, WWW., FTP, HTML, HTTP, application on Data base
15	7/2/2024	IP address, domain name, DNS

19. Examinations:

20. Extra notes:

21. Peer review :