

Course Description – Fundamentals of Computer Science

****Course Title:**** Fundamentals of Computer Science

****Course Code:**** To be assigned by the Department

****Semester / Year:**** first Semester

****Date of Preparation:**** 02/09/2025

****Delivery Modes:**** In-person + Online (when required) + Practical

****Credit Hours / Units:**** 3 hours / 3 units

****Course Coordinator:****

Name: Asst. Lecturer Ali Hamid Ebeid

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Course Objectives

- Introduce students to the fundamental concepts of computers, including hardware and software components, and their respective functions.
- Equip students with the basic skills to operate computer systems: starting up, managing files and folders, and using system tools.
- Develop the ability to use common office applications such as word processing, spreadsheets, and presentation software.
- Explain the principles of computer networks and the Internet, and how to benefit from them in education and work.
- Introduce students to the principles of information security and the importance of data protection and privacy.
- Provide students with basic logical programming skills and a simplified understanding of algorithms.
- Enhance critical thinking and problem-solving skills using computer tools and technologies.
- Teach students how to use Microsoft Excel, manage basic databases, apply formulas and functions, and handle large datasets.
- Emphasize the necessity of learning computer usage due to the crucial role of the Internet in education, research, commerce, and marketing.

Teaching and Learning Strategies

- Explaining the theoretical and practical terminology of the course while linking it to real-world applications for better understanding.
- Using mathematical and statistical methods to analyze social, economic, or accounting problems.
- Conducting daily and weekly tests to assess student comprehension.
- Encouraging student participation in explaining concepts, raising questions, and engaging in scientific discussions.

Course Structure

Week	Hours	Intended Learning Outcomes	Unit / Topic	Learning Method	Assessment Method
1	3	Define the concept and components of a computer	Computer Concept and Components	Lecture + Discussion	Oral Questions
2	3	Distinguish between input, output, and storage units	Input, Output, and Storage Devices	Lecture + Practice	Oral & Written
3	3	Understand operating system functions	Operating Systems	Lecture + Practical	Exercises
4	3	Apply advanced formatting to texts and tables	Word Processing	Hands-on Training	Assignments
5	3	Master text editing skills	Word Editing	Hands-on Training	Practical Tasks
6	3	Create and calculate spreadsheets	Excel Basics	Practical	Exercises
7	3	Apply basic	Excel	Practical	Assignments

		formulas and functions	Functions		
8	3	Design presentations	PowerPoint	Practical	Project
9	3	Understand networking fundamentals	Computer Networks	Lecture + Practice	Quiz
10	3	Explain information security basics	Information Security	Lecture + Discussion	Quiz
11	3	Apply computers within the specialization	Applied Computing	Case Studies	Reports
12	3	General review	Course Review	Lecture + Practice	Class Participation
13	3	Comprehensive exam	Comprehensive Exam	Written Exam	Final Exam
14	3	Final review & practice	Course Review	Lecture + Exercises	Participation
15	3	Final Exam	Final Exam	Written / In-person	Final Evaluation

Course Assessment

- Daily preparation and class participation: 10 marks
- Quizzes: 10 marks
- Reports and assignments: 10 marks
- Midterm exam: 20 marks
- Final exam: 50 marks
- Total: 100 marks

Learning Resources

****Required Textbook:****

- Computer Fundamentals and Office Applications, Part II (2010, Microsoft Office) – Ministry of Higher Education and Scientific Research

Authors: Asst. Prof. Ziyad Mohammed Aboud, Asst. Ghassan Hameed Abdul-Majeed, Dr. Mustafa Diaa Al-Hasani

****Recommended References:****

- Learn Microsoft Office 2021: Your comprehensive guide to developing skills with the new features in Word, PowerPoint, Excel, Outlook, and Teams (2nd Edition)

- Learn Microsoft Office 2019: A complete visual guide to starting with Word, PowerPoint, Excel, Access, and Outlook

****Electronic Resources:****

- Websites and online materials related to Computer Fundamentals and Office Applications

- Scientific journals and research papers in computer fundamentals