

1. Course Name:	
Computer Science Basics	
2. Course Code:	
3. Semester / Year:	
Year	
4. Description Preparation Date:	
1-12-2025	
5. Available Attendance Forms:	
Weekly (Theory: 1 hours, Practically: 1 hours)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theory: 30 hours Practical: 30 hours Total: 60 hours Number of units: 3 (per semester)	
7. Course administrator's name (mention all, if more than one name)	
Name: Bushra Jabbar Abdulkareem Email: bushra.jabbar@muc.edu.iq	
8. Course Objectives	
Course Objectiv	1. Studying the fundamentals of computer networks, their types, and their importance in connecting computers. 2. Studying the concept of the internet and its applications in business, education, and government services. 3. Identifying information security and the main cybersecurity threats. 4. Threats facing network security. 5. Studying network troubleshooting techniques. 6. Studying how to resolve network connection problems. 7. Studying e-commerce, its types, and benefits. 8. Studying the types of electronic banking services and how to use and benefit from them. 9. Studying computer problems and how to solve them. 10. Studying artificial intelligence in a simplified manner and its modern application 11. Identifying recent developments in information technology, such as cloud computing and big data. 12. Studying modern trends in computer use in education and business.
9. Teaching and Learning Strategies	
Strategy	1. Lectures and Presentations: The instructor delivers lectures and presentations introduce and explain key concepts, theories, and principles related to compu fundamentals and operating systems. This helps students develop a basic understand of the subject.

	2. Practical Demonstrations: Practical demonstrations are given to illustrate the use of different computer components, software applications, and operating system functions. This enhances students' understanding of the practical aspects of computer systems. 3. Group Discussions and Collaborative Learning: Engaging students in group discussions and collaborative learning activities promotes active participation and a deeper understanding. Students can discuss and analyze case studies, real-world examples, and scenarios related to computer fundamentals and operating systems. 4. Lab Exercises: Practical lab exercises provide students with opportunities to apply their knowledge and skills in a controlled environment. They can work with computers to install software, configure operating systems, and perform troubleshooting tasks, allowing them to gain practical experience. 5. Assignments and Projects: Students may be assigned assignments and reports that encourage independent learning and critical thinking. These assignments could include research, analysis, problem-solving, and applying the concepts learned in the unit. This would help students develop their skills and deepen their understanding.
	10. Learning outcomes
	1. Understanding the nature of networks, their hardware and software components, their types, and basic connectivity devices. 2. Students will gain knowledge of the fundamentals of data security over the internet and the types of network threats. 3. Students will learn about errors, how to identify them, and how to fix them in a network environment. 4. Students will learn about e-commerce, its types, a number of well-known e-commerce websites, its benefits, and the challenges it faces. 5. Students will learn about electronic banks, the types of electronic banking services, and their importance. 6. Students will learn about common computer problems, how to avoid them, and how to resolve them. 7. The nature of artificial intelligence (AI). 8. Understanding the role of AI in our daily lives. 9. The most prominent applications of AI in all areas of life. 10. The challenges facing AI. 11. Expected developments in the future of AI across various fields.

1. Course Structure

Week	Hours	Unit or subject name	Learning method	Evaluation method
1-2	Th.:1H Pr.: 1H	Introduction to Network Fundamentals and Components	Lect. & Lab.	Homework
3-4	Th.:1H Pr.: 1H	Network Security Fundamentals	Lect. & Lab.	Quiz
5-6	Th.:1H Pr.: 1H	Network Security Fundamentals	Lect. & Lab.	Homework
7	Th.:1H Pr.: 1H	Midterm Exam	Lect. & Lab.	Exam
8-9	Th.:1H Pr.: 1H	E-commerce	Lect. & Lab.	Homework
10-11	Th.:1H Pr.: 1H	The Concept and Importance of Electronic Banking Services	Lect. & Lab.	Quiz
12-13	Th.:1H Pr.: 1H	Computer Problem Diagnosis and Solutions: Introduction to Common Computer Problems and Their Solutions	Lect. & Lab.	Homework
14-15	Th.:1H Pr.: 1H	Review and Mid Exam	Lect. & Lab.	Exam

Second semester

1-2	Th.:1H Pr.: 1H	Introduction to Artificial Intelligence	Lect. & Lab.	Homework
3-4	Th.:1H Pr.: 1H	Artificial Intelligence in Our Daily Lives	Lect. & Lab.	Quiz
5-6	Th.:1H Pr.: 1H	Applications of Artificial Intelligence	Lect. & Lab.	Homework
7	Th.:1H Pr.: 1H	Exam and Review	Lect. & Lab.	Exam
8-9	Th.:1H Pr.: 1H	Artificial Intelligence and Society	Lect. & Lab.	Homework
10-11	Th.:1H Pr.: 1H	Challenges Facing Artificial Intelligence	Lect. & Lab.	Quiz
12-13	Th.:1H Pr.: 1H			Homework
14-15	Th.:1H Pr.: 1H	Review and Mid Exam	Lect. & Lab.	Exam

2. Course Evaluation

The grade distribution is as follows:

Assessment: 40 marks,

Final Exam: Theory 60 marks

3. Learning and Teaching Resources	
Required textbooks (curricular books any)	اساسيات الحاسوب وتطبيقاته المكتبية (الجزء الثاني) للمؤلف أ.م.د. زياد محمد عبود، أ.د. غسان حميد عبد المجيد، د.مصطفى ضياء الحسني ، 2016
Main references (sources)	الدليل التعليمي لشركة مايكروسوفت للبرامج المعطا ادناه [1] G. Brown and D. Watson, "Cambridge IGCSE Information and Communication Technology," 3rd ed. Cambridge, U.K.: Cambridge Univ. Press, 2020. [2] A. Evans, K. Martin, and M. A. Poatsy, "Technology in Action Complete," 16th ed. Boston, MA, USA: Pearson, 2020. [3] الخضر علي الخضر بحات, "أساسيات الحاسوب", 2016
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Websites specializing in working with these programs

Course Description Form