Course Description Form

1. Course Name
Computer Science
2. Course Code
FS-21-CO
3. Semester / Year
First Semester / Second Phase / Academic Year 2026-2027
4. Date this description was prepared
2/9/2026
5. Available Forms of Attendance
Morning - Evening
6. Number of Hours (Total) / Number of Credits (Total)
30 / 2
7. Course administrator name (if more than one name mentioned)
Name: Hussein Ghani Kamr Email : iugfdbcthc@gmail.com

8. Course Objectives

Cognitive Objectives	**Course Objectives**
The student will be able to: **1.** Define the basic concepts and terminology related to network security, computer networks, e-commerce, and artificial intelligence. **2.** Explains the basic principles of network security, network protection methods, and computer and network troubleshooting concepts. **3.** Distinguishes between different AI applications, and its uses in smartphones, adaptive learning, simultaneous translation, transportation, marketing, finance and robotics. **4.** Analyzes the benefits, challenges, ethical and social dimensions of artificial intelligence, and anticipates its future trends.	

Skill Objectives **The student will be able to:** **1.** Applies basic techniques and tools for computer and network troubleshooting and diagnosing and fixing problems. **2.** It uses modern tools and applications related to artificial intelligence in carrying out practical tasks and solving simple problems. **3.** Employs the basic concepts of network security in the secure handling of networks, e-services, and e-commerce. **4.** Prepares scientific presentations and reports on AI applications and network security, and actively participates in relevant discussions and workshops. Value Goals The student will be able to: 1- Embodies the moral values derived from Islami teachings in Handle the technology. 2. Respect the plurality and difference in scientific opinions within the class. 3- Contributes to community and awareness activi related to technology. 4. Practice self-criticism and reflection in the light scientific developments.	

9. Teaching and Learning Strategies

	Strategy
Teaching and Learning Strategies 1. Interactive lectures to present theoretical concepts. 2. Read and analyze approved sources. 3. Presentations from students. 4. Discussions based on ethical values in the use of technology. **Note:** The following strategies can be mentioned according to the article: • Using **interactive lectures** to present theoretical concepts in ..... While engaging students with discussion and motivational questions. • **Employ blended learning** by combining classroom lectures with online activities or content, including recorded recitations, digital lectures, virtual discussions, and online quizzes.	

- Guide students **to read essential sources** from ..... books , and analyze them within assignments to enhance deep understanding.
- assign students **presentations** on selected topics from ..... , which develops summarizing, explanation, and communication skills.
- Implementing **practical workshops** in ..... , enabling the practice of research and applied skills.
- Promote **collaborative learning** through group projects or structured interpretive discussions, to develop dialogue and teamwork skills.
- assign students individual **or group research projects** on ..... topics , using scientific methodology and academic documentation.
- Training students in **analytical and writing exercises** that require deriving concepts and meanings and linking them to reality.
- **Conduct discussions** based on Quranic values.
- Engaging students in **community service activities** related to the Holy Quran such as education or awareness, to enhance the practical impact of science in society.
- Encourage **self-reflection** by writing personal reflections that link what the student has learned to their behavior or attitudes in life.

10. Course Structure

Evaluation Method	Learning method	Unit Name or Subject	Required Learning Outcomes	Watches	The week
Preparation	Lecture + Discussion	Network and Network Security Computing	To learn about the conce types and basic components of networks	2-3	1
Preparation	Lecture + Exercise	Network Security Basics	Learn about security bas Networking and Threat Understanding Retina	2-3	2
Preparation	Lectur e	E-commerce	Learn about the concept e-commerce and service Electronic Banking	2-3	3
Duty	Lecture + Exercise	Troubleshooting your computer	Identify common proble in computers and solve hardware and software issues	2-3	4

Test	Lecture + Practical Exercise	Exploration techniques a tools Basic Bugs	Learn about computer troubleshooting techniq and tools	2-3	5
Preparation	Lecture	Introduction to Artificial Intelligence	Identify the concept of artificial intelligence, its history, technologies, an methods	2-3	6
Duty	Lecture + Discussion	Basic Characteristics, Benefits, Challenges, and Ethics of AI	Identify characteristics Core Artificial Intelliger Its benefits, challenges ethics	2-3	7
Preparation + Semester exam	Lecture + Exercise	Artificial Intelligence in Modern Smartphones	Learn about the uses of artificial intelligence in modern smartphones an voice assistants	2-3	8
Short test	Lecture	Adaptive Learning and Interpretation Services	Recognize adaptive learning Interpretation Services Using AI	2-3	9
Preparation	Lecture	Intelligence Apps & Too Artificial	Identify AI applications and tools in various fiel	2-3	10
Student Presentati	Discussion + Presentations	Applications of Artificial Intelligence in Transportation, Marketin and Advertising	Recognize AI applicatio in transportation Marketing & Advertisin	2-3	11
Preparation	Lecture	Applications of Artificial Intelligence in Finance, Robotics, and Automatio	Learn about AI applications in finance, robotics, and automation	2-3	12
Report	Lecture	Artificial Intelligence an Society	Recognizing the impact AI on society International Relations a the Future Humanity	2-3	13
Preparation + Semester exam	Discussio	Ethical Challenges in AI	Identify challenges AI Ethics, Privacy, Surveillance, and the La Market	2-3	14
Report + Final Ex	Lecture	The Future of Artificial Intelligence	Learn about the future o AI and trends Research and emerging technologies	2-3	15

11. Course Evaluation

Πρεπαρατιον and Classroom Participation: 6 Grades
Assignments and Reports: 5 marks

- Short and practical tests: 5 marks
- Semester exam: 24 marks

• Final Exam: 60 marks
12. Learning and Teaching Resources

1-Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology In Action Complete", 16th Edition (2020). 2- Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", ist Edition (2024) 3- Dr. Adel Abdel Nour. "Introduction to the World of Artificial Intelligence" 2005	Required Textbooks (Methodology, if any)
1-The Rise of Machines: Future of Work in the Age of AI AI: A Modern Approach, 3rd Ed 3- Electronic Banking: Presence and Trends – Dušan Lesja 4- New Perspectives on Computer Concepts – June Jamrich Parsons 5- Artificial Intelligence for Everyone – Christian Posthoff , Springer 6- Discovering Computers: Digital Technology, Data, and Devices, 17th Ed. 7- AI-Powered Solutions for Bilingual Proficiency and Communication 8- New Advances in Translation Technology 9- Applied Artificial Intelligence in Business: Concepts and Cases – Springer 10- Artificial Intelligence in Society – Springer	Main References (Sources)
	Recommended books and references (scientific journals, reports...)
1- SpringerLink Scientific Books and References	Electronic References, Websites

Approval of the Dean of the College
Assoc. Prof. Dr. Talal Faiq Al-Kamali

Authentication of the Head of the Department
Assoc. Prof. Dr. Esraa