نموذج وصف المقرر

Review the performance of the higher education institution
(review of the academic program)

وصف المقرر

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he has made the most of .the available learning opportunities and must be linked to the program description

1. Educational Institution	College of Health & Medical Techniques / Al-Zahrawi University - Ministry of Higher Education and Scientific Research
2. University Department / Center	optics Techniques
3. Course Name / Code	Computer / URCOM
4. Programs in which it is included	Bachelor's program for the departments (Optical Technologies - Medical Physics)
5. Available Forms of Attendance	In-person education
6. Semester / Year	First / 2025-2026
7. Total Number of Study Hours	٦٠
8. Date of preparing this description	١٦/١/٢٠٢٦

9. Course Objectives:

- **A Brief Overview of Computer Evolution: A look at the historical development and stages of computer technology.**
- **Understanding Computer Components: Explaining both Hardware (physical components) and Software, and how they interact.**
- **Mastering Windows Fundamentals: Starting with desktop customization and file organization, moving to managing system settings via the Control Panel, and effectively using core Windows applications.**
- **Introduction to Microsoft Word: Learning text editing, utilizing professional tools for document creation, and preparing files for professional presentation and sharing.**
- **Introduction to Microsoft Excel: Mastering data entry, exploring data analysis tools, and learning the most commonly used functions through practical examples.**
- **Introduction to Microsoft PowerPoint: Exploring essential tools and creative techniques to empower students to design professional presentation slides, enabling them to present information clearly and showcase their academic creativity.**

10. Learning Outcomes, Teaching and Learning Methods, and Evaluation

: Upon completion of this course, students will be able to:

1. **Navigate and utilize the Windows operating system user interface.**
2. **Gain a comprehensive understanding of the Windows operating system, its features, and its core functionalities.**
3. **Develop the ability to efficiently manage the Windows interface and Microsoft Office applications (Word, Excel, and PowerPoint).**
4. **Acquire essential skills in adjusting system settings, managing files and folders, and utilizing built-in tools and utilities.**
5. **Create and format professional documents, spreadsheets, presentations, and emails effectively.**
6. **Understand advanced Microsoft Office features, such as Excel formulas and functions, as well as collaboration tools.**
7. **Develop problem-solving skills specific to Windows and Microsoft applications, including diagnosing and resolving common software issues.**
8. **Troubleshoot issues related to Windows settings, software installation, and system compatibility.**

A. Knowledge and Understanding

To provide students with fundamental knowledge and understanding of computer concepts, hardware and software components, operating systems, and computer applications relevant to optical technologies and scientific data processing

B. Subject-Specific Skills

Equipping students with computer skills and applied software relevant to optics technologies, as well as the ability to input, organize, and analyze data. Additionally, utilizing core software to support optical applications, image processing, and scientific data management.

Teaching and Learning Methods

- **Lectures**
- **Interactive Questioning**
- **Use of Smart Boards and Projectors**
- **Practical Hands-on Computer Training**

C. Evaluation Methods

Monthly exams, daily quizzes, assignments, in-class discussions, and teamwork evaluation (based on either report writing or practical computer application).

D. Thinking Skills

Developing analytical thinking, problem-solving, and logical reasoning in the field of computing.

Teaching and Learning Methods

Continuous practical application of computer software, conducting daily quizzes, and assigning homework and practical computer-based tasks.

Evaluation Methods

Student performance is assessed through midterm exams, final exams, practical tests, assignments, reports, class participation, and attendance, ensuring the achievement of the course's learning outcomes.

e. General and Transferable Skills

Developing teamwork and effective communication skills, time management, and the use of digital technologies for self-learning. It also aims to build the ability to prepare scientific presentations and reports, while enhancing ethical commitment and professional responsibility

11. Course Structure					
Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
١	٤	Computer Fundamentals	Introduction to computer components (Input unit, Storage unit, Memory unit, Output unit, Arithmetic and Logic Unit (ALU), Control Unit, and Central Processing Unit (CPU)).	Theory/Practical	
٢	٤	Computer Fundamentals	Memory: Types, units of measurement, RAM, and ROM. Secondary Storage: Hard drives, Flash drives, and Optical discs (DVD). I/O Devices: Keyboard, mouse, monitors, scanner, plotter, printer, and latest market trends.	Theory/Practical	
٣	٤	Computer Fundamentals	MS Windows: Desktop, "This PC", managing files and folders using Windows Explorer, Control Panel, and file searching techniques.	Theory/Practical	
٤	٤	Core Software Introduction	MS Word: Introduction, interface environment, help system, creating and editing documents, saving files, and text formatting (alignment, and indentation).	Theory/Practical	
٥	٤	Core Software Introduction	MS Word (Continued): Find and Replace, bullets and numbering, headers and footers, and working with tables.	Theory/Practical	
٦	٤	Core Software Introduction	MS Word (Continued): Spelling and grammar check features, AutoCorrect, and Thesaurus.	Theory/Practical	
٧	٤	Core Software Introduction	MS Word Graphics: Inserting images, clip art, shapes, and Word Art. Page setup and margins, printing, and practical application of "Mail Merge".	Theory/Practical	
٨		Assessment	Midterm Exam (Mid Exam)	Theory/Practical	
٩	٤	Core Software Introduction	MS Excel: Work environment, creating/opening/saving workbooks, cell ranges, cell formatting, and functions (Mathematical, Logical, Date, Time, and AutoSum).	Theory/Practical	
١٠	٤	Core Software Introduction	MS Excel (Continued): Formulas, charts and graph types, chart tools, and printing (Page layout, header and footer tabs).	Theory/Practical	
١١	٤	Core Software Introduction	MS Excel (Continued): Data formatting and exporting.	Theory/Practical	

١٢	٤	Core Software Introduction	**MS PowerPoint: Interface overview, creating new presentations, saving and opening files.**	**Theory/Practical**	
١٣	٤	Core Software Introduction	**MS PowerPoint (Continued): Adding and removing slides, changing layouts, choosing templates, and slide sorting.**	**Theory/Practical**	
١٤	٤	Core Software Introduction	**MS PowerPoint (Continued): Inserting text and titles, font settings, paragraph alignment, principles of effective writing in presentations, and inserting images/shapes.**	**Theory/Practical**	
١٥	٤	Core Software Introduction	**Advanced Optics Tech: Digital imaging and image processing, Optical Coherence Tomography (OCT), corneal topography, CAD/CAM, customized lenses, and tele-optometry systems.**	**Theory/Practical**	
١٦		Assessment	**Final Exam**		

12. Infrastructure	
Required Readings:	**References:** Wallace Wang, Absolute Beginners Guide to Computing, Apress, 2016. Michael Miller, Absolute Beginner's Guide to Computer Basics, Que, 2022. Chris Ewin, Carrie Ewin, Cheryl Ewin, Computers for Seniors: Email, Internet, Photos, and More in 14 Easy Lessons, William Pollock, 2017.
Special Requirements (Workshops, Journals, Software, Websites):	**Electronic Websites:** https://www.geeksforgeeks.org/computer-science-fundamentals/computer-fundamentals-tutorial//
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	**Organizing workshops and courses for graduates:**

13.	
Prerequisites	
Minimum Number of Students	
Maximum Number of Students	

Name of the Instructor:
Bahaa Turki Raji