



Module (Course Syllabus) Catalogue 2025-2026

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| College/ Institute | Erbil Technical Engineering College, Erbil Polytechnic University | |
| Department | Department of Highway and Bridge Engineering | |
| Module Name | COMPUTER ESSENTIALS | |
| Module Code | COE103 | |
| Degree | Technical Diploma <input type="checkbox"/> | Bachelor <input checked="" type="checkbox"/> |
| | High Diploma <input type="checkbox"/> | Master <input type="checkbox"/> |
| | | PhD <input type="checkbox"/> |
| Semester | 1 st | |
| Qualification | Master of Computer Engineering | |
| Scientific Title | Lecture | |
| ECTS (Credits) | 4 | |
| Module type | Prerequisite | Core <input checked="" type="checkbox"/> Assist. |
| Weekly hours | | |
| Weekly hours (Theory) | (1) hrs. Class | (3) Total hrs Workload |
| Weekly hours (Practical) | (3) hrs Class | (5) Total hrs Workload |
| Number of Weeks | 12 | |
| Lecturer (Theory) | Haval Ahmed Abdulrahman | |
| E-Mail & Mobile NO. | Haval.abdulrahman@epu.edu.iq | |
| Lecturer (Practical) | Haval Ahmed Abdulrahman | |
| E-Mail & Mobile NO. | Haval.abdulrahman@epu.edu.iq | |
| Websites | - | |

Course Book

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| <p>Course Description</p> | <p>This course deals with more Microsoft Office (Word, Power Point and Excel) is a comprehensive suite of computer software designed to help create and share content in a professional manner. The programs in the Microsoft Office suite allow quick and easy design of professional documents, presentations, and spreadsheets while organizing information.</p> <p>As well as to be able to work effectively on the computer using the mentioned software to do engineering and scientific simulations. Learn to create spreadsheets in Excel for your engineering analysis, final year project and other engineering simulations.</p> | | | | |
| <p>Course objectives</p> | <ul style="list-style-type: none"> • To know how to use the most common Microsoft Office programs • To be able to create documents for printing and sharing • To be able to create and share presentations • Create a spreadsheet to tabulate and record numeric values • Indicate the names and functions of the Excel interface components. • Enhance alpha and numeric date in an Excel Worksheet | | | | |
| <p>Student's obligation</p> | <p>Students must attend all lectures. They also do quick daily exams. Furthermore, they are required to do their homework and duties that will be assigned to them. Moreover, they must do seminars and projects. And finally, they must pass the final and midterm exam.</p> | | | | |
| <p>Required Learning Materials</p> | <p>lectures are going to be presented in the computer lab. with projector for presenting the lectures. Also, white board will be used for demonstrating materials that needs more highlights.</p> | | | | |
| <p>Evaluation</p> | <p>Task</p> | <p>Weight (Marks)</p> | <p>Due Week</p> | <p>Relevant Learning Outcome</p> | |
| | <p>Paper Review</p> | | | | |
| | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Assignments</p> | <p>Homework</p> | <p>10%</p> | | |
| | | <p>Class Activity</p> | <p>2%</p> | | |
| | | <p>Report</p> | <p>-</p> | | |
| | | <p>Seminar</p> | <p>8%</p> | | |
| | | <p>Essay</p> | <p>-</p> | | |
| | | <p>Project</p> | <p>8%</p> | | |
| | <p>Quiz</p> | <p>8%</p> | | | |
| | <p>Lab.</p> | <p>-</p> | | | |
| | <p>Midterm Exam</p> | <p>24%</p> | | | |
| | <p>Final Exam</p> | <p>40%</p> | | | |
| | <p>Total</p> | <p>100%</p> | | | |

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| Specific learning outcome: | <ul style="list-style-type: none"> • Learners will understand which tasks each of the major Office programs can perform. • Learners will be able to independently create professional looking documents, presentations, and spreadsheets. • Learners will be familiar with some advanced Office functions. • Learners will understand how to use Word, Excel, and PowerPoint in a variety of professional, educational, and personal situations. • Learners will be able to claim Office proficiency. • Learners will be able to apply advanced formulas to lay data in readiness for analysis • Learners will be able to use advanced techniques for report visualizations |
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| Course References: | <ul style="list-style-type: none"> • Microsoft Office 2016 Step by Step, by Joan Lambert and Curtis Frye. • Training computer driving "a practical course in windows 7 & office 2010 • Exploring: Microsoft Office 2013, Plus , Mary Anne Poatsy, Keith Mulbery, Cynthia Krebs, Eric Cameron, Jerri Williams, Robert Grauer, Prentice Hall, 2014,1st . <ol style="list-style-type: none"> 1. http://www.pearsonhighered.com/educator/product/ExploringMicrosoftOffice-2013-Plus/9780133412161.page 2. http://office.microsoft.com/en-001/word-help/basic-tasks-in-word2010HA101830016.aspx 3. http://www.tutorialspoint.com/word_2010/word_getting_started.htm 4. http://www.microsoft.com 5. http://en.wikipedia.org/wiki/Computer 6. http://en.wikipedia.org/wiki/User:Matrix_computers_karimnagar 7. http://www.acobas.net/teaching/survival/handouts/pcwebopedia.pdf 8. Computer Skills for Dummies |
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| Course topics (Theory) | Week | Learning Outcome |
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| Introduction to computer components hardware and software. What is a Computer? Modern Computers Computer Components Computer Languages Unit of Measurements Laptop and smartphone computers Data, Information and Knowledge Characteristics of Computer Computer Problems Malicious Software | 1 | Should be able to understand basic computer components. |
| Practical Topics | Week | Learning Outcome |
| To be able to use windows. What is Windows 7? Windows version Hardware Requirements Windows 7 features What Can You Do on Windows 7? Starting Windows 7 The desktop components Working with Windows Understanding the parts of a window | 2 | Should be able to use window |

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| <p>Working with file and folder</p> <ol style="list-style-type: none"> 1. Selecting 2. Rename 3. Copying 4. Moving (cut) 5. Create a Folder 6. Deleting 7. Opening an existing file or folder 8. Search for a file and folder <p>Working with Control Panel How to use the taskbar</p> | | |
| <p>To be able to type papers and reports using MS-Word</p> <ol style="list-style-type: none"> 1. Opening Microsoft Word 2. Interface Components 3. Entering Text 4. Moving around text 5. Save a document 6. Opening New Document: 7. Opening Existing Document: 8. Close a document 9. Insert Text 10. Select Text 11. Delete Text 12. Copy, Cut, and Past Text 13. Find and Replace | 3 | Should be able to type papers and reports using Microsoft-Word. |
| <p>To be able to type papers and reports using MS-Word</p> <ol style="list-style-type: none"> 1. Setting Text Fonts <ul style="list-style-type: none"> • Setting Text Fonts • Change the Font Size: • Change the Font Type: • To Change the Font Color: • To Highlight Text: • To Use the Bold, Italic, and Underline Commands: • To Change the Text Case: • Clear Formatting Options: • Adding text effects • Make text superscript or subscript 2. Setting Text Properties <ul style="list-style-type: none"> • To Change the Text Alignment: • To Indent Paragraph • Line Spacing • Paragraph Spacing 3. Bullets and Numbering | 4 | Should be able to type papers and reports using Microsoft-Word. |
| <p>To be able to type papers and reports using MS-Word</p> <ol style="list-style-type: none"> 1. Zoom-in & Zoom-out 2. View Types 3. Show / Hide ruler 4. Change Page Properties 5. Preview Document 6. Printing Documents 7. Insert Special Symbols: 8. Insert Clip Art and Picture 9. Insert Page Number 10. Insert Header and Footer 11. Insert Border and Shading | 5 | Should be able to type papers and reports using Microsoft-Word. |

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| <p>12. Insert Shapes 13. Undo & Repeat operations: 14. Checking Spelling and Grammar 15. Copy and Apply Text Formatting: Working With Tables</p> | | |
| <p>To be able to create charts and analyze data using MS-Excel</p> <ol style="list-style-type: none"> 1. Launching Excel 2013 2. Interface Components <ol style="list-style-type: none"> 1. Select cells 2. Move a round cells 3. Cell Contents <ul style="list-style-type: none"> • To Insert Content: • To Delete Content Within Cells: • To Delete Cells: • To Modify Column Width: • To Set Column Width with a Specific Measurement: • Wrapping Text and Merging Cells • To Insert Rows: • To Insert Columns: • Hide Columns or Rows 4. Working with sheets tab 5. Formatting Cells 6. Sorting Data | 6 | Should be able to create charts and analyze data using Microsoft-Excel |
| <p>To be able to create charts and analyze data using MS-Excel</p> <ol style="list-style-type: none"> 1. The Fill Handle 2. Formulas and Functions 3. Working with Basic Functions | 7 | Should be able to create charts and analyze data using Microsoft-Excel |
| <p>To be able to create charts and analyze data using MS-Excel</p> <ul style="list-style-type: none"> • Working With Chart | 8 | Should be able to create charts and analyze data using Microsoft-Excel |
| <p>To be able to create presentation using MS-Power point</p> <ol style="list-style-type: none"> 1. Launching PowerPoint 2013 2. Interface Components 3. To Create a New, Blank Presentation: <ol style="list-style-type: none"> 1. To Open an Existing Presentation: 2. About Slides 3. About Slide Layouts 4. Customizing Slide Layouts 5. Working with Slides <p>Working with different views Working with Slide Effects</p> <ol style="list-style-type: none"> 1. Apply a Design Theme 2.. Change the Background Style or Format your Background 3. Adding Animations 4. Applying Slide Transitions 5. Hiding a Slide 6. Using an Action Button Keyboard Shortcuts | 9 | Should be able to create presentation using Microsoft-Power point |

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| <p>To be able to create presentation using MS-Power point</p> <p>Working with different views</p> <p>Working with Slide Effects</p> <ol style="list-style-type: none"> 1. Apply a Design Theme 2.. Change the Background Style or Format your Background 3. Adding Animations 4. Applying Slide Transitions 5. Hiding a Slide 6. Using an Action Button Keyboard Shortcuts | 10 | Should be able to create presentation using Microsoft-Power point |
| <p>To be able to use and search through the Internet.</p> <p>Introduction</p> <p>What is the Internet?</p> <p>Servers and Clients</p> <p>The World Wide Web (WWW)</p> <p>HTML</p> <p>URL</p> <p>Did you know?</p> <p>How is the Internet Used?</p> <ol style="list-style-type: none"> 1. Finding Information Online 2. Intelligent Personal Assistants 3. Using the Internet to Communicate | 11 | Should be able to use and search through the internet. |
| <p>To be able to use and search through the Internet.</p> <p>How Do I Connect to the Internet?</p> <p>Web Browsers</p> <p>Internet on Mobile Devices</p> <p>Browser Basics</p> <p>Domain Name</p> <p>E-mail Basic</p> <ul style="list-style-type: none"> • Introduction • Understanding Email Addresses • About Email Providers <p>Understanding the Email Interface</p> | 12 | Should be able to use and search through the internet. |

Questions Example Design

Q1: What are the Icon operations?

- Arrange icons on the desktop by item types.
- Hide the desktop icons.
- View them again
- Change icons' type to its small size.

Q2 : Write the following paragraph (*only inside the box*):

{Paragraph}

Required to do this :

- 1: Replace all word which is **Instructor** with word **Teacher**.
- 2: Make the above text in Blue font and 18 as size.
- 3: Add header to your document and write it

MS_WORD_test and write in footer **This is assignment 3** and make them in the center.

4: Insert **picture** under the above text.

Q3. In the MS_Excel do this :-

•Launch Excel

•When it is opened, have a through look on the “interface components” like: ribbon, buttons quickaccess bar...etc. and try to identify them.

•Have a look on the spreadsheet layout, how cells are divided and named

Extra notes:

For the above time schedule, 12 weeks of teaching is considered, hence, the completion of the program is dependent on the available number of weeks. However, some changes might happen to optimize the available time.

External Evaluator

I hereby confirm that all syllabuses given in the attached course book is sufficient to cover required subjects, areas and titles needed for students regarding the study year.

Dr.Slar Othman Ali:

Head of QA/QC committee of Highway and Bridges Engineering Department
2025-2026