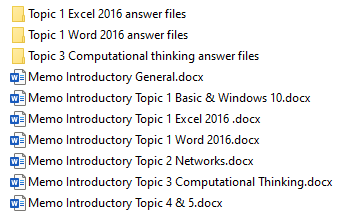
**LECTURERS GUIDE**

**INTRODUCTORY COMPUTER PRACTICE**

**Microsoft Windows 10**

**Microsoft Office 2016**



Practical answer files

**General**

1. As a lecturer you have many kinds of **teaching methods and materials** at your disposal, and you even have the freedom to present this subject to students in a freestyle way rather than a strict textbook style approach. You could decide to present some of the topics more in a storytelling kind of way, depending on the group, in order to make students more curious about some of the topics.

At a College, the group may be a Marketing Management group, Business Management, Hospitality and Catering, Tourism, Financial Management, and more. That is what they choose to study and what interests them.

2. In this introductory book our focus was to supply training material for students who want to learn what is needed to find a job after completing their studies. It is impossible to provide practical exercises for all types of industries. The lecturer can adjust exercises, for example for the Hospitality and Catering group. We tried to motivate students to think for themselves, and we give them enough material for self-study.

3. Ultimately, you would know what teaching styleworks best for you, and one that you think a particular group of students would relate well to.

• Some student groups might be interested in sport, some might like art, some groups might prefer group activities in class, while some might prefer a more static classroom style combined with self-study.

• Evening class students might already have daytime jobs in corporations, and these students might be in an older age group with different preferences than younger student groups. The challenge is to find the best kind of lecturing style for the particular group of students.

• Some students are from schools who did not build a good foundation for them, and these schools have unfortunately not prepared students adequately for tertiary studies. For the lecturer in particular, it is a huge challenge to bring such a student on par with the rest of the class, but can also be very fulfilling if such a student shows the necessary dedication and does manage to master the subject in the end. Hope our book and the tips in this guide will help to uplift these students and attempt to bring them on par with the requirements of the course.

4. An enthusiastic lecturer will make students excited about the subject and motivate them. We tried to help you by giving tips in this guide. Try to enable students to integrate activities with their real daily lives; try to make the representation of topics fun and innovative, in order to help students "gel with the content". Contextualize the topics; for example, use a promotional item such as an advertisement for the Marketing and Business groups as an activity. We are trying to create skilled employees able to apply creativity, critical thinking and problem solving skills, rather than employees who wait for management to communicate and collaborate. As writers and lecturers, we are in a position to empower students and to influence them to be more proficient and ready to apply for a job.

5. We included a **I can do checklist.docx** file for the student to verify if he grasp all the content of a particular topic, or to identify problem areas. For example: I can create and save a new blank document, I can open an existing document in MS Word.

**Your name:**

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| --- | --- | --- |
| **INTRODUCTORY COMPUTER PRACTICE** | | |
| **Student checklist** | | |
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| **You should now be able to do the following:** | | **I can do this**  **✓** |
|  | |  |
| **Topic 1: Computing concepts and application skills** | |  |
| **1.1** | **Introduction to computing concepts and systems technologies** |  |
| 1.1.1 | Define the term ICT |  |
| 1.1.2 | Discuss the role computers play in modern society |  |
| 1.1.3 | Explain how ICTs facilitate everyday business operations |  |
| 1.1.4 | Discuss examples of computer usage and applications as part of society. |  |
|  |  |  |
| **1.2** | **Explain what a personal computer is and how it is used** |  |
| 1.2.1 | Describe the concept personal computer in terms of hardware, software, memory, storage. |  |
| 1.2.2 | Differentiate between various types and forms of computers in terms of their use and purpose within an office environment |  |
| 1.2.3 | Differentiate between hardware and software |  |
| 1.2.4 | Describe the basic purpose of hardware |  |
| 1.2.5 | Differentiate between different types of hardware with examples |  |
| 1.2.6 | Describe the basic purpose of software |  |
| 1.2.7 | Differentiate between different types of software with examples |  |
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| **1.3** | **Introduction to systems technologies and the information processing cycle** |  |
| 1.3.1 | Define the following terms: Information processing, Information processing cycle |  |
| 1.3.2 | Explain how the concepts of information processing and the information processing cycle are related |  |
| 1.3.3 | Draw a basic model of an information processing device |  |
| 1.3.4 | Define the terms: Input, Output and Processing |  |
| 1.3.5 | Explain the purpose of storage |  |
| 1.3.6 | Name the various components required and utilised for I/O, storage and processing  Range:  RAM, ROM, secondary and primary storage, CPU,Digital communication mediums |  |
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| **1.4** | **Basic concepts of systems and application software** |  |
| 1.4.1 | Differentiate between: Systems and Application software |  |
| 1.4.2 | List examples of different types of systems and application software |  |
| 1.4.3 | Explain the role of the Operating System (OS) |  |
| 1.4.4 | Explain the role of the OS as an interface between the user and the computer |  |
| 1.4.5 | Explain the necessity of the various operations and functions that an OS provide a user |  |
| 1.4.6 | List examples of different utility software and their purpose (including anti-virus software) |  |
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| **1.5** | **Starting up and shutting down an operating system, Windows 10** |  |
| 1.5.1 | Describe the concept of starting and operating system. (This also include the concept of bootstrapping) |  |
| 1.5.2 | Start an operating system, and log on (Also relates to the concept of why the necessity exist to log into an operating system) |  |
| 1.5.3 | Describe the concept of logging off or placing a computer in sleep mode |  |
| 1.5.4 | Describe the concept of restarting a computer using an appropriate routine |  |
| 1.5.5 | Shut down or restart a computer |  |
|  |  |  |
| **1.6** | **Explore and use the Operating System (OS), Windows 10** |  |
| 1.6.1 | Identify and name components of the Operating System (OS) desktop |  |
| 1.6.2 | Outline the purpose of the desktop and the taskbar |  |
| 1.6.3 | Use the start button on the taskbar to gain access to other functions of the Operating System (OS). |  |
| 1.6.4 | Identify common icons and discuss their meaning, such as: file icons, folder icons, drive icons, peripheral device icons, shortcuts, recycle bin, applications |  |
| 1.6.5 | Open different windows |  |
| 1.6.6 | Use two programs simultaneously in Windows and switch between the two |  |
| 1.6.7 | Identify the content of disks and folders in the content panel of File Explorer (called Windows Explorer in Windows 7) |  |
| 1.6.8 | Identify the file types correctly according to their extensions |  |
| 1.6.9 | Perform basic file management operations:  Range:  Create and manage folders, Move files and folders  Select multiple or single files  Name and rename files (including rules and conventions)  Perform basic search functions, Digital communication mediums |  |
| 1.6.10 | Use the Help function to solve problems |  |
| 1.6.11 | Use available utility software  Range: Calculator, Paint, Snipping tool |  |
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| **1.7** | **Using input and pointing devices** |  |
| 1.7.1 | Differentiate between a keyboard and a mouse and input devices |  |
| 1.7.2 | Demonstrate the correct typing posture and positioning of fingers, wrists, fore-arms and back to facilitate touch typing |  |
| 1.7.3 | Demonstrate proficiency in using a keyboard  Range:  Introduction to the keyboard and the various frequently used keys  Top row, Bottom row, Combination  Introduction to other keys; Shift, Caps Lock, Insert, Delete, Backspace, Page up, Page down, Home, End, Tab, Print screen  Speed and accuracy drills, Random, Basic common short cuts  Speed and accuracy drills |  |
| 1.7.4 | Identify the different sections on a keyboard (alphabetical, numerical function keys)  Range:  Able to type home row (asdfgh;lkj), Able to save a document.  Understand the correct use of the <Enter> key (word wrap)  Able to type top row (qwertyuiop) and home row  Identify the different sections on a keyboard (alphabetical, numerical function keys)  Able to type a combination of short words and sentences |  |
| 1.7.5 | Demonstrate proficiency in using a pointing device (mouse)  Range:  Understand the different functions of a mouse (right click, left click, scroll)  Learn How to drag the cursor, double click, click to select  Develop fine motor skills to better control the mouse  (Common Sense Education, 2019) |  |
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| **1.8** | **Introduction to Word Processing** |  |
| 1.8.1 | Define the term Word Processing |  |
| 1.8.2 | List examples of different word processing applications |  |
| 1.8.3 | Explain why word processing software are used |  |
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| **1.9** | **Starting a word processing application** |  |
| 1.9.1 | Open/Start a Word processor |  |
| 1.9.2 | Explore common features of the Ribbon tabs, Quick Access Toolbar, File tab, Menus |  |
| 1.9.3 | Create and save a new blank document |  |
| 1.9.4 | Open/retrieve an existing document |  |
| 1.9.5 | Switch between different documents |  |
| 1.9.6 | Create a document based on a template |  |
| 1.9.7 | Describe the concept and purpose of templates |  |
| 1.9.8 | Export/Save a document in another format  Range: Previous version, rtf, pdf, txt |  |
| 1.9.9 | Change the default folder for saving documents |  |
| 1.9.10 | Use the Help functions provided |  |
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| **1.10** | **Keyboarding and keyboard proficiency in a document** |  |
| 1.10.1 | Use other keys and combinations thereof on the keyboard such as Shift, Caps Lock, Insert, Delete, Backspace, Page up, Page down, Home, End, Tab, Print screen |  |
| 1.10.2 | Identify and use a number of keys and explore their effects in a Word document  Range: Alphabetical keys, number keys/num lock, Caps Lock, Enter, Backspace, Delete, Spacebar, Shift, Tab, Ctrl + Alt, Delete and F keys |  |
| 1.10.3 | Practise using these keys to create and edit a text document, for example using the Tab key for indenting |  |
| 1.10.4 | Revise alphabetical keys |  |
| 1.10.5 | Type special characters, symbols and punctuation marks available on the keyboard. (! @ # $ % ^ & \* ? < >) |  |
| 1.10.6 | Use basic features to edit a Word document  Range: Move around in it; type in it (INS); delete text; start a new  Select data using keyboard and/or mouse, entering, editing and deleting text  Basic punctuation - one space after all punctuation, including periods, formatting marks |  |
| 1.10.7 | Describe the GIGO (Garbage In Garbage Out) principle using a word processor document |  |
| 1.10.8 | Demonstrate the use of common shortcuts for editing text, for example  Ctrl +B, Ctrl +I, Ctrl +U, Ctrl +Z and Ctrl + Enter |  |
| 1.10.9 | Ctrl + C (copy), Ctrl + X (cut), Ctrl + V (paste) |  |
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| **1.11** | **Reinforce practical keyboarding and typing skills within a word processor** |  |
| 1.11.1 | Type 10-minute speed tests |  |
| 1.11.2 | Type revision, remedial and drill exercises |  |
| 1.11.3 | Reinforce the concepts mastered as part of LO 1.10  Type speed building exercises (using a typing tutor) |  |
| 1.11.4 | Touch type with confidence:  Range: Alphabetic keys, numeric keys (numeric keypad and/or top row numbers) |  |
| 1.11.5 | Apply basic text editing and correction using shortcut keys |  |
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| **1.12** | **Use basic features to create and edit and format a document** |  |
| 1.12.1 | Illustrate the purpose and advantages of using word processing software |  |
| 1.12.2 | Demonstrate the ability to open and save a document |  |
| 1.12.3 | Differentiate between saving and saving as (Save and Save As) |  |
| 1.12.4 | Use basic features to format a Word processor document (font group, use of style group) |  |
| 1.12.5 | Apply basic formatting to a document  Range: Font type, style, size, colour, highlight and effects |  |
| 1.12.6 | Apply Spell/Grammar checking  Printing a document |  |
| 1.12.7 | Use editing functions and shortcuts such as: cut, copy, paste, find and replace, tabular stops, indent |  |
| 1.12.8 | Add or remove bullets numbers in a single level list, switch between standard bullets, numbered lists |  |
| 1.12.9 | Set margins of the document, page or set of pages according to requirements |  |
| 1.12.10 | Select and use page orientation for different purposes |  |
| 1.12.11 | Use a variety of layout and formatting options.  Range:  change line spacing (single, 1.5 and double), change paragraph spacing (before and after), apply paragraph alignment (left, centre, right, justify), increase and decrease indent feature. inserting symbols (basic: caret (ê), acute (é), diaresis (ë), plus-minus (±), etc.  Preference to numbers but exposure to Roman numerals (i, ii, iii) as well as Alphabetical (a, b, c) numbering |  |
| 1.12.12 | Insert pictures and shapes (insert, wrap, sizing) |  |
| 1.12.13 | Export a document to a different format (e.g. pdf) |  |
| 1.12.14 | Capture and insert a screenshot |  |
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| **1.13** | **Spreadsheet basics** |  |
| 1.13.1 | Define the term and purpose of spreadsheet processing |  |
| 1.13.2 | List and describe different uses of spreadsheets (types of documents created) to represent information to users |  |
| 1.13.3 | Open/Start the spreadsheet application, Microsoft Excel 2016 |  |
| 1.13.4 | Explore common features of the Ribbon tabs, Quick Access toolbar, and File tab, Menus |  |
| 1.13.5 | Navigate a workbook |  |
| 1.13.6 | Add a new blank spreadsheet/worksheet to a workbook  Create a new workbook |  |
| 1.13.7 | Create a new spreadsheet/workbook file (called workbook in Excel) based on a template |  |
| 1.13.8 | Open an existing spreadsheet/workbook file (called workbook in Excel) |  |
| 1.13.9 | Export/Save a spreadsheet file (called workbook in Excel) in another format  Range: Previous version, rtf, pdf, txt, csv |  |
| 1.13.10 | Switch between different spreadsheets/worksheets and workbooks |  |
| 1.13.11 | Use the Help function provided |  |
| 1.13.12 | Differentiate and move between a tab sheet, row, column and a cell |  |
|  |  |  |
| **1.14** | **Use basic features to create and edit a spreadsheet** |  |
| 1.14.1 | Add content to a cell |  |
| 1.14.2 | Edit content of an existing cell |  |
| 1.14.3 | Use basic features to format a spreadsheet  Range to format text: Highlight text; typing text in bold, italics and underline; typing text in different styles and font sizes; using the alignment functions - left, right, merge & centre; adjust the width of the columns and height of rows and insert borders (horizontal and vertical lines) |  |
| 1.14.4 | Demonstrate the resizing of rows and columns |  |
| 1.14.5 | Use basic features to edit and change information in a spreadsheet  Range of editing: Move around in it; delete text; type in capital letters, insert rows and columns and use Undo and Redo functions  Range of changes: Change the contents of a cell or part of the contents of a cell |  |
| 1.14.6 | List and describe the common types of data that may be entered into a cell |  |
| 1.14.7 | Understand the concept that a cell in a worksheet document refers to only one element of data of a specific type |  |
| 1.14.8 | Understand the concept of a column, row and worksheet and the purpose of each |  |
| 1.14.9 | Explain the purpose of a spreadsheet and the concepts of a cell, row, column and a sheet |  |
| 1.14.10 | Enter data of different types in a cell |  |
| 1.14.11 | Differentiate between different data types and their use to represent data/information  Range: Strings, General, Number, Currency, Date and Time |  |
| 1.14.12 | Decide on common data types such as: General, Number, Currency, Text |  |
| 1.14.13 | Edit the data content of a cell |  |
| 1.14.14 | Select a cell, range of adjacent cells, range of non-adjacent cells, entire worksheet |  |
| 1.14.15 | Understand and apply the concept of a cell reference |  |
| 1.14.16 | Format the content of a cell and change the format of dates and currency, change number formats and decimal settings |  |
| 1.14.17 | Implement good practices in creating lists and tables.  Range: avoid blank rows and columns in the main body of list, insert a blank row before Total row, ensure cells bordering list are blank. |  |
| 1.14.18 | Transfer common features from word processing skills (e.g. copy, paste, save) |  |
| 1.14.19 | Use basic formatting and editing to format cells: wrap, merge, split, alignment, borders, shading, text direction and Auto Fill |  |
| 1.14.20 | Spell check; preview and set print (range or sheet) options and print the document |  |
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| **1.15** | **Use formulas to perform basic calculations in a spreadsheet** |  |
| 1.15.1 | Perform the basic spreadsheet calculations by inserting formulas and using basic operators including +, -, \*, /, |  |
| 1.15.2 | Understand the order of precedence and the use of brackets |  |
| 1.15.3 | Use the Auto Fill tool to repeat formulas and increment data entries |  |
| 1.15.4 | Use basic functions: MIN, MAX, SUM, COUNT and AVERAGE to solve simple problems |  |
| 1.15.5 | Sort data |  |
| 1.15.6 | Identify problems based on the following error indicators: #VALUE, #NAME, #NUM, #REF, #DIV/0, #N/A, ###### |  |
| 1.15.7 | Troubleshoot basic errors in formulas and functions |  |
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| **Topic 2:** **Networks and systems technologies** | |  |
| **2.1** | **Networking concepts** |  |
| 2.1.1 | Define the term network |  |
| 2.1.2 | List and briefly describe common examples of everyday networks |  |
| 2.1.3 | Discuss the advantages and disadvantages of using networks |  |
| 2.1.4 | Describe the basic components and hardware required for network communications |  |
| 2.1.5 | Differentiate between the use, purpose and operation of different types of networking hardware. (Basic overview) |  |
|  | | |
| **Topic 3:** **Data, information management and computational thinking** | |  |
| **3.1** | **Computational thinking (CT)** |  |
| 3.1.1 | Define the concept CT and its components  Range: Pattern recognition, abstraction, decomposition and possibly algorithms |  |
| 3.1.2 | Apply CT processes within a given problem domain |  |
| 3.1.3 | Focus on the important information only, ignoring irrelevant detail and seeing problems as finite chunks which can be re-used rather than re-built over and over again through abstraction |  |
| 3.1.4 | Place objects/statements/words in a correct order |  |
| 3.1.5 | Use detail to follow certain steps to complete an action |  |
| 3.1.6 | Identify what a pattern is |  |
| 3.1.7 | Look for similarities among and within problems |  |
| 3.1.8 | Interpret a given set of raw data, then recognise the pattern |  |
| 3.1.9 | Make predictions based on patterns |  |
| 3.1.10 | Define the term algorithm |  |
| 3.1.11 | Explain how algorithms are part of our daily lives and processes |  |
| 3.1.12 | Understand what an algorithm is in simple real-life scenarios |  |
| 3.1.13 | Read, understand and explain an existing algorithm |  |
| 3.1.14 | Trace steps in an algorithm |  |
| 3.1.15 | Use the following problem-solving steps and techniques to solve a problem:  Write down the main ideas and requirements of the problem.  Represent the problem by using a diagram, table, flow chart, description or any other method to indicate how you understand the problem |  |
| 3.1.16 | Identify the tools/instruments needed to solve the problem |  |
| 3.1.17 | Plan the detail and sequence the steps |  |
| 3.1.18 | Break down a complex problem or system into smaller, more manageable parts through decomposition |  |
| 3.1.19 | Implement the steps to solve the problem |  |
| 3.1.20 | Reflect on how well you have solved the problem |  |
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| **Topic 4: Internet and communication skills** | |  |
| **4.1** | **Introduction to the Internet and WWW** |  |
| 4.1.1 | Define the term Internet |  |
| 4.1.2 | Describe the term connectivity |  |
| 4.1.3 | Describe the term WWW |  |
| 4.1.4 | Define the terms: web address/uniform resource locater (URL), and describe their purpose |  |
| 4.1.5 | Differentiate between a web page and web site |  |
| 4.1.6 | Explain the purpose of a browser, search engine and other online tools and networks |  |
| 4.1.7 | Identify the different web browsers: Internet Explorer, Chrome, Opera, Firefox and Safari |  |
| 4.1.8 | Work with a web browser |  |
| 4.1.9 | Type in a URL in the address bar and go to a web page (URL) |  |
| 4.1.10 | Describe how a web site is accessed and information obtained (How to access and browse a web site) |  |
| 4.1.11 | Perform a search using a search engine  Range: writing search criteria, evaluating the results |  |
| 4.1.12 | Illustrate an understanding of safe Internet use: passwords, layered authentication, captcha |  |
| 4.1.13 | Explain the reason for information piracy and privacy |  |
| 4.1.14 | Explore and use social electronic media and networks for various communication purposes  Range: Facebook, Twitter, blogs, Skype, WhatsApp, YouTube, etc. |  |
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| **Topic 5** | **Digital citizenship** |  |
| **5.1** | **ICT impacts society at large** |  |
| 5.1.1 | Identify areas where ICTs influence one's life and lifestyles |  |
| 5.1.2 | Explain how ICT enhances daily living at home |  |
| 5.1.3 | Describe how ICT enhances and affects society  Range: office practices and education, healthcare, government, engineering, communication in the digital age, news transmission/delivery, video technology, forensics |  |
| 5.1.4 | Explain how mobile technologies affect the emerging world |  |
| 5.1.5 | Describe the concept of ICT related crime (cybercrime) by referring to computer criminals – types and what they do/how they operate |  |
| 5.1.6 | Explain how ICTs impact on the workplace and employment practices  Range: Mobile offices, virtual office, decentralisation of labour, office automation |  |
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| **5.2** | **Impact of the use of ICT on the environment** |  |
| 5.2.1 | Define the term green computing |  |
| 5.2.2 | Define the term e-waste |  |
| 5.2.3 | Discuss how the use of ICT’s impacts the environment with regard to e-waste management and green computing |  |
| 5.2.4 | Explain how the environmental impact of the use of computers could be reduced |  |
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| **5.3** | **Basic concepts of cloud computing and digital presence** |  |
| 5.3.1 | Explain the concept cloud computing |  |
| 5.3.2 | Demonstrate the use of cloud computing with: OneDrive/Dropbox/Google Drive, Google Docs/Google Sheets |  |
| 5.3.4 | Demonstrate an understanding of a search engine (Google) |  |
| 5.3.5 | Demonstrate a knowledge of ICTs in everyday life  Range:  Use of ICTs in real life (shopping, banking and education)  Explain the features/characteristics of online banking and shopping  Demonstrate |  |
| 5.3.6 | Explore the concepts of digital citizenship  Range:  Protect oneself when online, Online harassment  Stalking and bullying, Self-image, Netiquette, Social media safety  Awareness of digital footprint |  |
| 5.3.7 | Demonstrate an understanding of the concepts of: Cyber crime - threats, issues and remedies, identity theft, hacking, phishing |  |
| 5.3.8 | Demonstrate an understanding of what copyright and plagiarism is (software, information, intellectual property) |  |
| 5.3.9 | Differentiate between different types of copyright |  |
| 5.3.10 | Demonstrate an understanding of the purpose of asking for permissions and digital content usage rights |  |
| 5.3.11 | Reference sources |  |
| 5.3.12 | Explain the purpose of regulatory bills and their implications:  Range:  The protection of Information Bill  Protection of Harassment Act (2013) |  |

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