

Information Technology Course Outline – Trinity Term 3rd Form

Week	Topic	Objectives	Content	Evaluation/Activities
1 – Theory	Fundamentals of Hardware and Software	Revision (Advent & Lent Term) i) Identify and describe computers and types of computers ii) Describe the data processing cycle and its components iii) Explain the functions of the major hardware components of a computer system - Input Devices iv) manipulate units of storage;	What is a computer? Describe the components of a computer system. What are computer Hardware? What are computer Software? Why use a computer system Types of Computers What are the advantages of using computer systems? What are the drawbacks of using computers? Protecting computer systems What is the data processing cycle?	1) Interactive Revision Class Activity – Revision Jeopardy Divide Class into two teams. A Member picks a category to answer a question from. 2) Graded Revision Worksheet

1 - Practical	Spreadsheet	<p>create and use advanced arithmetic formulae;</p> <p>Select basic pre-defined systems functions;</p>	<p>What are the steps in the cycle?</p> <p>Identify categories of Input Devices</p> <p>Identify common Input Devices and explain how they are used to accomplish a variety of tasks in various organisations.</p> <p>Revise Bit, byte, kilobyte, megabyte, gigabyte, terabyte, word, word size.</p> <p>Revision – Basic Excel Formulas, Functions and IF Functions</p>	<p>Classroom Activity</p> <p>Excel Worksheet</p>
2 – Theory	Fundamentals of Hardware and Software	<p>Revision (Advent & Lent Term)</p> <p>Explain the functions of the major hardware components of a computer system – Output Devices (Soft Copy)</p>	<p>Visual display unit: resolution, types, sizes.</p> <p>Audio output devices (for example, speakers, headphones, earphones); microfilm. Also terms such as hard copy, soft copy, human readable and machine-readable.</p>	<p>Homework Activity 1 & 2</p> <p>Answer Recap Questions</p> <p>Quiz</p> <p>Individual Project</p> <p>Using the Formatting Features learnt in your practical classes, create and submit a project on Input, Output and Storage Devices.</p>

2 –Practical	Spreadsheet	<p>Explain the functions of the major hardware components of a computer system – Output Devices (Hard Copy)</p> <p>create and use advanced arithmetic formulae;</p> <p>Select basic pre-defined systems functions;</p>	<p>Printers: impact and non-impact, types: (character, line, page, laser, inkjet, dot matrix). Characteristics: (speed, quality, storage capacity); plotters;</p> <p>Revision – Basic Excel Formulas, Functions and Complex Criterion (Advance Filter)</p>	<p>Your Project should have at least 5 examples of each device, pictures of each device and a brief description of how it can be used/or what it is used for.</p> <p>Projects should be submitted as hard copy</p> <p>Classroom Activity</p> <p>Excel Worksheet</p>
3 - Theory	Fundamentals of Hardware and Software	<p>Distinguish between systems programs and application programs;</p> <p>Explain the functions of an operating system;</p> <p>Distinguish between types of user interface.</p>	<p>Systems software: operating systems, translators, utilities: Application software: general purpose, special purpose, custom written. Customization, integrated software.</p> <p>File management, memory management, security, device management, input/output management, user interface, process management.</p> <p>Software interface: Command driven, graphical user interface (GUI) (menu driven, pull-down and pop-up menus, icons). Hardware</p>	<p>Homework Activity</p> <p>Answer Recap Questions</p> <p>Software Worksheet – Graded</p> <p>Quiz</p>

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			interface: touch screens, non-visual interface, sensors, and Braille keyboards.	
4 - Theory	Fundamentals of Hardware and Software	Introduction to Binary	Decimal to binary conversion, Binary to Decimal Conversion, Binary Addition, Binary Subtraction	Conversion Worksheet 1 & 2 Binary Addition Worksheet Binary Subtraction worksheet Quiz
5 –Practical	Spreadsheet	Select basic pre-defined systems functions;	Basic Excel Formulas, Functions, Rank and V-Lookup	Classroom Activity
6- Practical	Spreadsheet	Select basic pre-defined systems functions;	Basic Excel Formulas, Functions, Rank and V-Lookup	Classroom Activity
7- Practical	Spreadsheet	All Spreadsheet objectives	Basic Excel Formulas, Functions, IF Function, Complex Criterion and V-Lookup	Practical Assessment
8- Revision	Fundamentals of Hardware and Software Spreadsheet	Revision – Trinity Term Objectives	Discussion, Demonstration & Recap	Classroom Activity