

INFORMATION TECHNOLOGY
COURSE OUTLINE & ASSESSMENT PLAN

OCTOBER – DECEMBER 2020

GRADE 11

Course Instructor: Mrs. A. Edwards-Williams

- Course Overview:**
1. prepare students to function effectively in a dynamic technological era;
 2. promote the development of computer-related skills for application to real-life situations;
 3. prepare students to use information technology responsibly.

WEEK	TOPICS	OBJECTIVES	CONTENT	ASSESSMENT
1, 2 & 3 Sept 14- 30 Oct 1	School Based Assessment (SBA) Spreadsheet	SBA is Posted in Google Classroom	SBA is Posted in Google Classroom	SBA
4 Oct 5- 9	Computer Fundamentals (Revision)	Explain the concept of Information Technology; Distinguish among the major types of computer systems in terms of processing, speed, storage and portability;	Definition and scope of Information Technology Major types: (a) Super Computers (for example, Cray). (b) Mainframes (for example, IBM zEnterprise System). (c) Desktop systems. (d) Mobile devices (for example, laptops, notebooks, netbooks, smartphones, tablets and game consoles). (e) Embedded devices (for example, special-purpose systems such as controllers in microwaves, car ignition systems, answering machines).	Classwork: Arrange the major types of computer system in term of their portability from LEAST to MOST portable: Mainframe Mobile Super Computer Desktop Embedded

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4 Oct 12 - 16	Computer Fundamentals (Revision)	<p>Explain the functions of the major Hardware components of a computer system cont.</p> <p>Explain how the major hardware components of a computer system interrelate;</p> <p>Evaluate the relative merits of cloud storage and local storage;</p> <p>select appropriate input/output devices to meet the needs of specified applications;</p>	<p>Major components: input, central processing unit, primary memory (RAM and ROM), secondary storage, output</p> <p>Units of storage: bits, bytes, kilobytes, megabytes, gigabytes, terabytes.</p> <p>Input processing output storage (IPOS) cycle</p> <p>Definition of cloud and local storage. Assessment criteria: capacity, cost, accessibility; security issues.</p> <p>Associate the following devices with suitable applications:</p> <p>(a) Input: Optical mark reader (OMR), character readers (OCR, MICR), mouse, joystick, bar code reader, document scanner, light-pen, touch terminals, voice response unit, Touch Screens (tablets, point of sale, ATM), keyboard, digital camera, biometric systems, sensors, remote control, sound capture, pointing devices, webcam.</p> <p>(b) Visual output: Monitors, Printers (laser, inkjet, dot matrix, thermal, plotters, 3D Printers), microfilm.</p> <p>(c) Audible output: speakers, headphones, earphones.</p>	Test: Computer Fundamentals

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<p>5 Oct 19 – 23</p>	<p>Word-Processing</p>	<p>Use the review feature of a word processor to enhance document readiness;</p> <p>Appropriately use features that allow the protection of a document;</p> <p>Generate table of contents for a document;</p> <p>Use mail merge feature in the preparation of a document</p> <p>create a fillable electronic form for online use;</p>	<p>Spell and grammar check, thesaurus, word count, language setting, comments, and track changes.</p> <p>Automatic save and backup copy, edit restrictions – password protection.</p> <p>Auto table of content.</p> <p>Creation of primary documents and data files in mail merge application</p> <p>.</p> <p>Field names.</p> <p>Use of content controls, such as check boxes, text boxes, date picker, drop-down lists, and command buttons.</p>	<p>Classwork</p> <p>Graded Classwork</p> <p>Test: Word-Processing</p>

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<p>6 Oct 26 - 30</p>	<p>Computer Fundamentals</p>	<p>explain the role of the different types of software in computer operation;</p> <p>discuss the relative merits of the various types of user interface;</p> <p>evaluate the suitability of a given computer system for a specific purpose;</p> <p>troubleshoot basic computer hardware problems;</p>	<p>System Software: Operating System, Utilities.</p> <p>Application software: general-purpose and special-purpose; integrated package; source: off the shelf, custom-written, and customized.</p> <p>Hardware: touch screens, specialized keyboards.</p> <p>Software: command line, menu-driven, graphical user, touch.</p> <p>Basic knowledge of system specification needed for purposes such as: to run a video game, web browsing, graphic design, video editing, and desktop publishing.</p> <p>Criteria:</p> <p>(a) Processing speed (CPU type and speed);</p> <p>(b) Memory (RAM);</p> <p>(c) Secondary storage (capacity and speed);</p> <p>(d) Types of software; and,</p> <p>(e) Input/Output devices.</p> <p>Cable problems (for example, loose cables).</p> <p>Monitor problems (for example, improperly adjusted monitor controls).</p> <p>Printer problems (for example, changing printer cartridges).</p> <p>Battery problems (for example, loose or dead battery).</p>	<p>Homework: Locate a document that show the specification of any one of the following: (a) Laptop (b) Desktop computer (c) Tablet</p> <p>Class Activity Watch a video on trouble shooting basic computer problem</p> <p>Students will write notes and share it the class.</p>

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7 Nov 2 – 6	Database Management	<p>explain the concept of a database;</p> <p>use terminology commonly associated with a database;</p>	<p>Definition of database:</p> <p>(a) repository of information; and, (b) collection of tables that are related to each other.</p> <p>Purpose of database.</p> <p>Database terminology: table, row (record), column (field), primary key, secondary key, candidate key, foreign key.</p> <p>Data types: numeric; text; logical; date /time; currency.</p>	<p>Classwork</p>
8 Nov. 9 - 13		<p>create a database;</p> <p>manipulate data in a database.</p>	<p>Table structure with at least three data types and populated with at least 25 records.</p> <p>Modify a table structure: adding new fields, deleting fields, changing field definitions.</p> <p>Establish primary keys.</p> <p>Establish relationships: show the joins between tables (one-to-one and one-to-many).</p> <p>(a) Forms:</p> <p>(i) Use of form wizard only; (ii) select suitable fields; and, (iii) use of sub-form.</p> <p>(b) Queries:</p> <p>(i) more than one criterion; (ii) use of select; (iii) use of calculated field; and, (iv) two or more fields involving the use of relational and logical operators.</p>	<p>Graded Homework: Define the following Database terminology: table, row (record), column (field), primary key, secondary key, candidate key, foreign key. Data types: numeric; text; logical; date /time; currency.</p>

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	Database Management	manipulate data in a database Cont.	(c) Reports: (i) use of report wizard; (ii) use of sorting, grouping, statistical and summary features, for example, count, sum, and average; (iii) report generated to screen, printer and file; and, (iv) renaming of report title.	Test: Database
9 Nov 16 –20	Information Processing Fundamentals	distinguish between data and information;	Data as raw unprocessed facts; information as processed data. Sources of data and information (people, places and things). Document types: turnaround document, human-readable and machine-readable forms; hard copy, and soft copy.	Graded Classwork CSEC Questions Graded Homework CSEC Questions
10 Nov 23-27		evaluate the reliability of information obtained from online sources; differentiate between validation and verification of data; identify appropriate validation and verification checks given a particular scenario; and, select appropriate file organization for particular application.	Evaluation of information retrieved electronically for authenticity, currency, relevance, and bias Difference between validation and verification. Methods of validation: range check, reasonableness checks, data type checks, consistency checks, presence, format and length. Methods of verification: double entry and proofreading (to identify and correct typographical and transpositional errors). File access methods: sequential, serial, direct and random. Application areas: archiving, payroll file, real time systems	

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11 Nov 30- Dec - 18	SBA: Database Management Word Processing Web Page	See Google Classroom	See Google Classroom	SBA: Database Management Word Processing Web Page