

BUSINESS STUDIES DEPARTMENT
DATA OPERATION
COURSE OUTLINE Grade 9 – SEPT-DEC 2025

DATE	TOPIC	SUB-TOPIC	OBJECTIVES	THEORETICAL ALIGNMENT	SOCIAL LEARNING ACTIVITIES
Week 1 & 2 Sept 15 - 26	Health and Safety		1. The impact of the use of computers on health, safety and the environment 2. Health and safety practices when using computer system 3. Investigating and solving basic computer hardware problems 4. How the Government Agencies responsible for Health and Safety Acts carries out its mandate in relation to ICT/IT industry	Cognitive Learning Theory (focus on knowledge acquisition – students learn cause-and-effect between computer use and health/environmental outcomes).	1. Group discussions on personal experiences with eye strain, back pain, or fatigue when using computers.
Week 3 & 4 Sept 29-Oct 10	Foundations of Hardware and Software		1. Define the terms ‘file’ and ‘file management’ 2. Categorize files based on their file extensions 3. Solve the path to a file, with the tree directory structure 4. Perform file management related tasks in a directory folder	Cognitivism (Ausubel’s Meaningful Learning Theory) Students build knowledge by connecting new concepts (file, file management) to prior experiences (saving work at school/home).	Teacher-led explanation with real-world examples. - Class discussion: "What happens when you save a document?" Matching activity: Students match file icons to extensions.
Week 5 & 6 Oct 13 -24			1. Define the term database management 2. Discuss the difference between electronic databases and manual databases 2. Importance of database management systems 3. Design and populate an electronic database table	Constructivism (Vygotsky, Bruner): Students construct knowledge by designing and populating their own databases, engaging in hands-on activities.	Group activity: Students create a simple database on the computer, then compare it with a manual version in MS Access.

Week 7 & 8 Oct 27 – Nov 07			Six-week Test/ Heroes Day 1. Create simple queries and reports from single tables	Constructivism + Experiential Learning – students learn by creating	students design a table (fields: StudentID, Name, Age, Grade, Address). - Populate with sample data. - Students practice adding, editing, and deleting records.
Week 9 & 10 Nov 10 -21			1. Importing and exporting database objects to a word processor or spreadsheet 2. Perform mail merge using a spreadsheet or database table as the source 3. Perform simple binary operations such as addition and subtraction	Experiential Learning (Students learn by actually creating a mail merge and experiencing its usefulness.)	Students create personalized letters using mail merge with a provided spreadsheet.
Week 11 & 12 Nov 24 – Dec 05			Revision for End of Year Exam		