BUSINESS STUDIES DEPARTMENT
DATA OPERATION
COURSE OUTLINE Grade 11 – SEPT-DEC 2025

DATE	**TOPIC**	SUB-TOPIC	OBJECTIVE	THEORETICAL ALIGNMENT	SOCIAL LEARNING ACTIVITIES
WEEK 1 **Sept 15 - 26**	**Database**	**Introduction to Database Concepts**	1.Define the terms Database and Database package 2. List situation in which database would be useful 3. List the similarities and differences between a manual and a computerized database	**Constructivist Theory (Piaget/Bruner):** Students build their own understanding of databases by connecting prior knowledge of data organization (lists, spreadsheets) to new database concepts. .	Social Learning Theory (Vygotsky/Bandura): ● Learning is enhanced through collaboration, peer discussion, and group problem-solving activities. ● Teacher scaffolds learning by modeling database design and guiding students in cooperative activities.
WEEK 2 **Sept 29 - Oct 10**		**Creating and Designing Database**s	1.Create a new database in Microsoft Access. 2. Design and create tables with appropriate field names, data types, and field properties. 3. Set primary keys to uniquely identify records.	**Constructivist Learning Theory (Piaget/Vygotsky):** Students construct new knowledge by linking concepts of databases to real-world data management situations (e.g., school records, library systems).	Think-Pair-Share: Students discuss examples of databases they interact with daily (e.g., school records, contacts on their phone).

WEEK 3- 4 Oct 13 -24		**Managing Data**	1.Enter, edit, and delete records in a table. 2.Apply validation rules to ensure data integrity. 3.Import and export data between Access and other applications (Word, Excel).	**Bloom's Taxonomy:** Activities progress from understanding and applying database concepts to analyzing, evaluating, and creating solutions using DBMS.	In small groups, students create a Student Sports Club Database. Each group inputs sample data and practices updating records.
WEEK 5-6 Oct 27 – Nov 07		**Queries**	1.Create and run queries to filter, sort, and extract information. 2.Use criteria and logical operators (AND, OR, LIKE) in queries. 3.Create simple parameter queries.	**Vygotsky:** Through group activities and peer-to-peer interaction, students build knowledge collaboratively, applying queries to real-world problems.	Students work in groups to design queries for a "School Library Database" (e.g., books borrowed in the last month, books by a particular author). Groups present their query results to the class.
WEEK 6			**SESSIONAL TEST 1**		**SESSIONAL TEST 1** (Written 20%)
WEEK 7 - 8 Nov 10 -21		**Forms and Report**	1.Design and use forms for easier data entry and navigation. 2. Apply formatting and layout options to improve form usability. 3. Generate reports to present data in a clear, professional format. 4.Use grouping, sorting, and formatting features in reports.	***Cognitive Load Theory* –** stresses that information should be presented in a clear format to avoid overwhelming users. Reports should summarize and simplify data for decision-making.	Students will work in small groups to **generate attendance report** from a sample database. They will present their report to the class as if reporting to management, focusing on clarity and professionalism.

WEEK 9-10 Nov 12-23			**Group Project**		**Group Project (Social Learning):** Students work in small groups (3–4) to design a database for a real-world scenario such as: A school library management system An employee database for a company An inventory system for a store
WEEK11- Nov 25 – Dec 06			**Revision for end of year exam**		**Revision for end of year exam**