

YEAR 11

COMPUTER SCIENCE



SRI KDU
International
School
SUBANG JAYA

PROGRAMME OF STUDY - TERM 1

TERM 1.1 AUTOMATED AND EMERGING TECHNOLOGIES

- **Automated Systems:**
 - Understand the use of sensors, microprocessors, and actuators in automated systems.
 - Evaluate the advantages and disadvantages of using automated systems in various scenarios.
- **Robotics:**
 - Define robotics and understand what is meant by robotics.
 - Learn the characteristics of a robot.
 - Explore the roles, advantages, and disadvantages of robots.
- **Artificial Intelligence:**
 - Define artificial intelligence (AI) and understand what is meant by AI.
 - Learn the main characteristics of AI.
 - Understand the basic operation and components of AI systems to simulate intelligent behavior.

TERM 1.2 DATABASES – BOOLEAN LOGIC

- **Design and Use of Single Table Databases:**
 - Understand and identify fields and records.
 - Learn about validation methods for data input.
- **Use of Basic Data Types:**
 - Understand and use various data types, including:
 - Text/alphanumeric
 - Character
 - Boolean
 - Integer
 - Real
 - Date/time
- **Primary Keys:**
 - Identify the purpose and use of primary keys in databases.
- **SQL Scripts:**
 - Learn to use SQL scripts to query data stored in a single table database.
- **Standard Logic Gates:**
 - Identify, define, and understand the symbols and functions of standard logic gates: NOT, AND, OR, NAND, NOR, and XOR.

- **Creating Logic Circuits:**

- Use logic gates to create logic circuits from:
 - A given problem.
 - A logic expression.
 - A truth table.

- **Completing Truth Tables:**

- Complete truth tables from:
 - A given problem.
 - A logic expression.
 - A logic circuit.

- **Writing Logic Expressions:**

- Write logic expressions from:
 - A given problem.
 - A logic circuit.
 - A truth table.