# Programme of study for BTEC Level 3 IT (Year 12)

| Autumn (1st term) | Autumn (2nd term) | Spring (1st term) | Spring (2nd Term) | Summer (1st term) | Summer (2nd term) |
|---|---|---|---|---|---|
| From: Sept          To: Oct | From: Oct          To: Dec | From: Jan          To: April | | From: April  To: May | From: June          To: July |
| Topic / Key Question: Unit 5 - Learners study how data modelling can be used to solve problems. _Learning aims:_ <ul><li>Investigate data modelling and how it can be used in the decision-making process</li><li>Design a data model to meet client requirements</li></ul> Skills: Reading technical texts , effective writing, analytical skills | Topic / Key Question: Unit 5 - Learners will design and implement a data model to meet client requirements. _Learning aims:_ <ul><li>Develop a data model to meet client requirements</li><li>Test a data model to ensure its fully functional</li><li>Evaluate data model against client requirements</li></ul> Skills: Mathematics skills, Creativity skills, analytical skills, Communication skills, Problem solving | Topic / Key Question: Learners study the design, creation, testing and evaluation of a relational database system to manage information. _Learning aims:_ <ul><li>Demonstrate knowledge of database development terminology, standards, concepts</li><li>Apply knowledge and understanding of database development terminology, standards, concepts and processes to create a software product.</li><li>Analyse information about database problems and data from test results to optimise the performance of a database solution</li><li>Evaluate evidence to make informed judgements about the success of a database's design and performance</li><li>Be able to develop a database solution to meet a client brief with appropriate justification</li></ul> Skills: Mathematics skills, Creativity skills, analytical skills, Communication skills, Problem solving | | **External exam  Part A 3hrs, Part B 2hrs – Unit 2** Topic / Key Question: (from May to July) Learners study the role of computer systems and the implications of their use in personal and professional situations _Learning aims:_ <ul><li>Know the digital devices that form part or all of IT systems</li><li>Know the function and uses of digital devices</li><li>Know the function and uses of digital devices for a range organisations</li><li>The concepts, processes and implications of transferring data within and between IT systems.</li></ul> Skills: Communication skills, reading technical texts, effective writing | Topic / Key Question: (from May to July) Learners study the role of computer systems and the implications of their use in personal and professional situations _Learning aims:_ <ul><li>Know the peripheral devices used with other digital devices to form part of an IT system</li><li>The concepts and implications for individuals and organisations of connecting devices to form a network.</li></ul> Skills: Communication skills, reading technical texts, effective writing |
| End of term 2 assessment to cover: <ul><li>Internal assignment 1 and 2 (P1 – P5, M1, M2, D1)</li><li>Internal assignment 3 (P6, P7, M3, D2 and D3)</li></ul> | | End of term 2 assessment to cover: AO1 – AO5 External exam practise Part A 3hrs, Part B 2hrs | | End of year assessment to cover: <ul><li>Part of A01</li></ul> | |
| Rationale for sequence: Optional unit Unit will be required for sampling end of the year | Rationale for sequence: Optional unit Unit will be required for sampling end of the year | Rationale for sequence: First of the external assessments to spread over the two years Gives students maximum chance to retake | | Rationale for sequence: Early preparation for external exam for next year | |
| **Home – Learning:** Related to topic covered at the time and assignment completion | **Home – Learning:** Related to topic covered at the time and assignment completion | **Home – Learning:** Related to topic covered at the time | **Home – Learning:** Related to topic covered past paper completion | **Home – Learning:** Related to topic covered past paper completion | **Home – Learning:** Related to topic covered |

| Reading / High Quality Text: Understanding technical language | Reading / High Quality Text: Understanding technical language | Reading / High Quality Text: Understanding technical language | Reading / High Quality Text: Understanding technical language | Reading / High Quality Text: Understanding technical language | Reading / High Quality Text: Understanding technical language |
|---|---|---|---|---|---|
| **Numeracy:** Use of formulae & functions. BIDMAS | **Numeracy:** Use of formulae & functions. BIDMAS | **Numeracy:** Using functions and formulae | **Numeracy:** Using functions and formulae | **Numeracy:** Storage capacity | **Numeracy:** bandwidth |

Enrichment / opportunities to develop cultural capital (including careers, WRL and SMSC):

Rights of individuals and rules for companies storing data. Job roles using software covered.