

# CURRICULUM & ASSESSMENT PLAN



YEAR 12 | Pearson Level 3 Alternative Academic Qualification BTEC National in Information Technology (Extended Certificate)

## **‘Becoming a knowledgeable IT practitioner’**

*The curriculum and assessment of students at this stage of education has been carefully designed to promote deep learning of Information Technology and develop students into knowledgeable IT practitioners:*

*The Pearson BTEC Level 3 Extended Certificate in Information Technology (AAQ) is an Alternative Academic Qualification (AAQ) designed for post-16 students with an interest in the Digital sector and aiming to progress to higher education or a related apprenticeship. Equivalent to one A level in size, it is suitable for students looking to develop their applied knowledge and skills in Information Technology as part of a study programme alongside A levels. In year 12, students will study information technology systems (unit 3) and website development (unit 3). In year 13, students will study units in cybersecurity (unit 2) and relational databases (unit 4). This course builds on the knowledge and understanding gained from the BTEC IT Tech Award qualification and is also open to students who have an interest but no previous qualifications in the sector.*

## HALF TERM 1 : U1 Information Technology Systems / U3 Website Development.

In this year two units will be studied and delivery will run parallel throughout the year.

All students will know:

### Unit 1 Information Technology Systems (LAA)

- Digital devices including their uses and functions. (A).
- Forms of notation (system and flowchart diagrams). (A).
- Peripherals and media. (A).
- Operating systems including choices, uses and types. (A).
- Utility and application software. (A).
- Choosing IT systems. (A).
- IT systems in organisations. (A).
- Impact of IT systems and Emerging technologies. (A).

### Unit 3 Website Development (Principles)

- Purpose and audience
- Page layout, navigation and content.
- Typography and colour.
- User experiences
- Dynamic websites
- Client requirements
- Website structure.

All students will be assessed:

- Unit 1 – Assessment of LAA1/2 understanding via summative paper.
- Unit 3 – Assessment of website principles using summative paper.
- Live assessment of practical tasks in lessons and Do It Now tasks.

Reading skills needed for this unit:

- Students will need to read scenarios and decompose tasks to identify and solve the requirements. Students will be required to read exam questions and apply abstraction and decomposition prior to answering.

Key vocabulary:

Unit 1: Device, multifunction, embedded system, functions, assistive technologies, storage characteristics, operating systems, networking, application, utility, factors, file types. (See content for exhaustive list).

Unit 3: Purpose, audience, layout, navigation, typography, experience, dynamic, compatibility, requirements.

## HALF TERM 2 : U1 Information Technology Systems / U3 Website Development.

In this year two units will be studied and delivery will run parallel throughout the year.

All students will know:

### Unit 1 Information Technology Systems (LAB/C)

- Connectivity and connection types. (B).
- Network topologies, types and choosing networks. (B).
- Data transmission including protocols. (B).
- File types and compression. (B).
- Drawing systems diagrams. (B).
- Online systems including use and selection. (B).

### Unit 3 Website Development (Design Skills)

- Wireframes
- Design ideas, reviewing and creating assets.
- Image editing and manipulation.
- Vector graphics.
- Video editing.
- File formats.
- HTML / CSS

All students will be assessed:

- Unit 1 – Assessment of LAB understanding via summative paper.
- Unit 3 – Assessment of design skills using summative paper.
- Live assessment of practical tasks in lessons and Do It Now tasks.

Reading skills needed for this unit:

- Students will need to read scenarios and decompose tasks to identify and solve the requirements. Students will be required to read exam questions and apply abstraction and decomposition prior to answering.

Key vocabulary:

Unit 1: Bluetooth, Ethernet, USB, WiFi, topologies, PAN, WAN, LAN, VPN, factors, productivity, security, protocols, file formats, compression, implications, performance. (See content for exhaustive list).

Unit 3: Wireframe, assets, vector, bitmap, file formats, compression, brand, resolution, typography, trimming, manipulation and editing.

## HALF TERM 3 : U1 Information Technology Systems / U3 Website Development.

In this year two units will be studied and delivery will run parallel throughout the year.

All students will know:

### Unit 1 Information Technology Systems (LAC/D)

- Interacting with online communities. (C).
- Considerations within online communities. (C).
- External / internal threats to data. (D).
- Impact of threats on systems and individuals. (D).
- Protecting data. (D).
- Encryption methods. (D).
- Access control backup. (D).

### Unit 3 Website Development (Design Skills)

- JavaScript displaying images.
- JavaScript displaying information.
- JavaScript animation.
- JavaScript searching, shopping cart, maps.
- JavaScript video.
- Accessibility including standards.
- Search engine optimisation.
- Self-review and areas for consideration.
- Functionality testing
- Usability testing

All students will be assessed:

- Unit 1 – Assessment of LAC/D understanding via summative paper.
- Unit 3 – Assessment of website development using summative paper.
- Live assessment of practical tasks in lessons and Do It Now tasks.

Reading skills needed for this unit:

- Students will need to read scenarios and decompose tasks to identify and solve the requirements. Students will be required to read exam questions and apply abstraction and decomposition prior to answering.

Key vocabulary:

Unit 1: Cloud computing, VPN, factors, communities, social media, vlog, blog, wiki, chatroom, instant message, podcast, forums, user experience, integration, productivity, working practices. (See content for exhaustive list).

Unit 3: Sliders, accordion, tabs, modal box, filtering, hover, transitions, motion, interactive maps, searching, cart.

## HALF TERM 4 : U1 Information Technology Systems / U3 Website Development.

In this year two units will be studied and delivery will run parallel throughout the year.

All students will know:

### Unit 1 Information Technology Systems (LAE/F)

- Features of online services. (E).
- Impacts of online services. (E).
- Sourcing and collecting data. (E).
- Data accuracy. (E).
- Privacy and Online Behaviour. (F).
- Environmental Impact. (F).
- Moral and Ethical Factors. (F).
- Legal Issues. (F).

### Unit 3 Website Development (Design Skills)

- Students working on the PSA (Pearson Set Assignment).

All students will be assessed:

- Unit 1 – Mock Exam (With combined assessment of LAE/F)
- Unit 3 - Students working on the Live PSA.
- Live assessment of practical tasks in lessons and Do It Now tasks.

Reading skills needed for this unit:

- Students will need to read scenarios and decompose tasks to identify and solve the requirements. Students will be required to read exam questions and apply abstraction and decomposition prior to answering.

Key vocabulary:

Unit 1: Online services, implications, accuracy, characteristics, considerations, user interface, data collection, validation, verification, processing systems. (See content for exhaustive list).

Unit 3: Client brief, wireframing, assets, site map, visual styles, visual presentations, accessibility, cart, gallery, form, functionality testing, usability, testing, review, legal constraints, ethical constraints.