



## Digital Information Technology Curriculum Intent/Overview



### **Intent**

At Oldbury Academy, ICT and Business Faculty we intend for students to learn, develop and recall the required knowledge and skills as outlined by the exam board specification. Whilst the key knowledge and skills will be embedded throughout the curriculum, students' learning will be established through practical examples of real life contexts and that of the local area. This intent aims at inspiring students to become independent learners and to achieve a level 3 qualification or move onto the world of Cyber security/IT

Students complete 3 components and develop spreadsheet skills and real life user interface software knowledge. The final component recalls on knowledge only and the learning that has taken place in Year 11

### **What will I study?**

See below

### **How will I be assessed?**

Students achieve BTEC tech grade: pass, merit or distinction.

Component 1 is coursework worth 30% of overall grade.

Component 2 is coursework worth 30% of overall grade.

Component 3 is an exam worth 40% of overall grade

### **What skills will I need?**

The course is designed to encourage students to be independent thinkers and devise a solution to a problem in the form of a spreadsheet and a user interface. Skills used include: data analysis and interpretation, group work, individual research, planning and report writing, software specific skills. Students will make extensive use of IT and Google online facilities.

### **What happens in lessons?**

All of our lessons are varied

- Working as a group to discuss ideas
- Independent research activities
- Teacher led for software demonstration
- Taking part in visits relevant to Component 1

		Year 10	Year 11
Autumn	<p><b>Overview</b>  <b>Component 1</b>            Exploring User Interface Design Principles and Project Planning Techniques  <b>Learning Aim A</b>            Investigate user interface design for individuals and organisations</p>	<p><b>Overview</b>  <b>Component 2 (single lesson)</b>            Collecting, Presenting and Interpreting Data  <b>Learning Aim B</b>            Create a dashboard using data manipulation tools  <b>Learning Aim C</b>            Draw conclusions and review data presentation methods  <b>Component 3 (double)</b>            Effective Digital Working Practices</p>	
	<p><b>Skills</b>            Be able to analyse different user interfaces GUI, text, menu, form, sensor, speech,            How effectively the interface is used on:</p> <ul style="list-style-type: none"> <li>• computers</li> <li>• handheld devices</li> <li>• domestic appliances</li> <li>• entertainment systems.</li> </ul> <p>The factors affecting the choice of user interface and how the user interface interacts for:</p> <ul style="list-style-type: none"> <li>• user requirements</li> <li>• ease of use and accessibility</li> <li>• performance/response time</li> <li>• user experience.</li> </ul> <p>The hardware and software used:</p> <ul style="list-style-type: none"> <li>• touch screen vs traditional displays</li> </ul>	<p><b>Skills</b>  <b>Component 2</b>            Import data            Use spreadsheet tools to format, filter, manipulate and present data            Make recommendations based on data            Draw conclusions based on data            Assess the effectiveness of the data</p> <p><b>Component 3</b>  <b>LA – A</b>            Communication technologies, cloud storage and computing, using cloud technologies, inclusivity and accessibility, impacts of modern technology  <b>LA – B</b>            System attacks and external threats, internal threats, user restrictions, data level protection, policies, back ups and recovery,  <b>LA – C</b>            Shared data, environmental issues, equal access, acceptable use policies, data protection, criminal use of ICT.  <b>LA – D</b></p>	



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	<ul style="list-style-type: none"> <li>• user input such as keyboard, voice, gestures , emerging technologies.</li> </ul>	Data and information flow diagrams, flowcharts, system diagrams, tables and written information
	<b>Assessments</b> WC 22nd Nov 21 – Hand out Submission – 13 <sup>th</sup> Jan 21	<b>Assessments</b> WC 23 <sup>rd</sup> September – Hand out Submission 21 <sup>st</sup> October 2021 <b>Component 3 exam</b> TBC
<h3>Spring</h3>	<b>Overview</b> <b>Component 1</b> Exploring User Interface Design Principles and Project Planning Techniques <b>Learning Aim B</b> Use project planning techniques to plan and design a user interface <b>Learning Aim C</b> Develop and review a user interface	<b>Overview</b> <b>Component 3 (resits)</b> Effective Digital Working Practices
	<b>Skills</b> Project requirements: The purpose of the user interfaces Audience requirements and user accessibility requirements. Task list PERT charts and critical path diagrams. Gantt chart timescales for task and sub-tasks with key milestones including review points with users and when resources will be needed. Mood boards/mindmaps. Project constraints contingency planning Methodologies – Waterfall, Iterative SMART aims/objectives The strengths and weaknesses of user interfaces:	<b>Skills</b> Component 3 – Recap of skills LA – A Communication technologies, cloud storage and computing, using cloud technologies, inclusivity and accessibility, impacts of modern technology LA – B System attacks and external threats, internal threats, user restrictions, data level protection, policies, back ups and recovery, LA – C Shared data, environmental issues, equal access, acceptable use policies, data protection, criminal use of ICT. LA – D Data and information flow diagrams, flowcharts, system diagrams, tables and written information



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	<p>How a user interface is easy to use and suitability for different audiences and purpose</p> <p>Testing of user interface</p>	
	<p><b>Assessments</b>          Learning Aim B hand out 10<sup>th</sup> February – Hand in 28<sup>th</sup> February          Learning Aim C hand out 26<sup>th</sup> March – Hand in 12<sup>th</sup> April</p>	<p><b>Assessments</b>          Component 3 Exam - TBC</p>
<p>Summer</p>	<p><b>Overview</b>  <b>Component 2</b>          Collecting, Presenting and Interpreting Data  <b>Learning Aim A</b> - Investigate the role and impact of using data on individuals and organisations.</p>	
	<p><b>Skills</b>          The characteristics of data and information          The data collection methods and features used when collecting data          The quality of the data collected by companies and how this impacts on decision making.          The reliability and validity of the data          How data might be used by a company to make decisions.          You should then provide a comprehensive detailed assessment of:          How the collection of data might affect the privacy of customers.          Spreadsheet skills – formula, functions, graphs, charts, if statements, conditional formatting, data dash boards, formatting, filter, sort, macros</p>	
	<p><b>Assessments</b>          Hand out – 06/06/2022 Hand in – 18/06/2022</p>	