PONTEFRACT ACADEMIES TRUST

Year Group Overview - Cambridge National in Information Technologies

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	
	LO1 – Understand the tools and techniques that can be used to initiate and plan solutions LO4 – Understand the factors to be considered when collecting and processing data and storing data/information	LO4 – Understand the factors to be considered when collecting and processing data and storing data/information	LO4 – Understand the factors to be considered when collecting and processing data and storing data/information	LO3 – Understand how data and information can be collected, stored and used	LO6 – Understand the different methods of processing data and presenting information	LO5 - To be able to import and manipulate data to develop a solution to meet an identified need	Careers
Year 10	**Course Introduction** • Course Structure. • Logistics. • Login Information. • Books. • Folder Structure. **LO1 - The Project Life Cycle** • Phases of the Project Life Cycle. • Interaction and Iteration between the Phases. • Inputs and Outputs of each phase of the Project Life Cycle. • Initial Project Considerations. • Planning Tools and Software. **LO4.1 – Types of Threats** • Botnet. • Malware. • Social Engineering. • Hacking. • Distributed Denial of Service (DDoS). • Pharming.	**LO4.2 – Vulnerabilities** • Environmental. • Physical. • System. **LO4.3 – Impact** • Denial of Service Attack. • Identity Theft. • Data Destruction. • Data Manipulation. • Data Modification. • Data Theft. **LO4.3 – Consequences** • Loss. • Disruption. • Safety. **LO4.4 – Prevention** • Physical. • Logical. • Secure Destruction of Data.	**LO4.5 – Legislation and Ethics** • Data Protection Act. • Copyright, Design and Patents Act. • Computer Misuse Act. • Health and Safety at Work Act 1974. • Freedom of Information Act (2000). • Ethical and Moral Issues. **LO4.6 – Validity** • Validity. • Reliability. • Bias.	**LO3.1 – Data** • What data is. • Data Types. **LO3.2 – Information** • What information is. • How data and information are related. **LO3.3 – Methods used to Store and Collect Data/Information** • Methods to collect and store. • Appropriateness of methods. • Information Technology (IT) used to support data collection. **LO3.4 – Different Storage Methods** • Cloud. • Physical Devices. **LO3.5 – Data in Context – Big Data** • Big Data. • Application and interaction of data stores. • Benefits and Drawbacks of the use of Data.	**LO6.1 – Selection and Justification of Appropriate Software** • Spreadsheet. • Database. **LO6.2 – Software** • Selection of the appropriate software tools and techniques. • Purpose and suitability of methods of presenting information. • Distribution Channels. • Presentation Method. • Advantages and Disadvantages of methods used for presenting information. • Resources required for presenting information.	**LO5 – Spreadsheet Software** **How to create, edit, delete and process data using appropriate software tools and techniques including:** • Functions. • Absolute Cell Referencing. • Linking Worksheets. • What if Analysis. • Macros. • Import Data from Different Sources. • Link to External Data. • How to Present Data using Pivot Charts/Tables. Dynamic Charts and Combination Charts. • Hide/Unhide Columns and Rows. • Apply Security Measures. • Export and Link Data to other Applications.	**Term 1: White Hat Hackers** While studying about hacking and the different types of threats online students will have the opportunity to explore the role of a white hat hacker with our careers partner. **Term 1: Project Manager** While studying the project life cycle students will have the chance to discover the careers opportunities within project manager. This lesson will be supported by our careers partner. **Term 5: Running a Business** While studying how to create spreadsheets and databases students will have the chance to discover how to use these tools to run a successful business. This lesson will be supported by our careers partner.

LO7 – To be able to select ad present information in the development of solution to meet an identified need. **LO5 - To be able to import and manipulate data to develop a solution to meet an identified need** **LO2 – To be able to initiate and plan a solution to meet an identified need**	**LO7 – To be able to select ad present information in the development of solution to meet an identified need**	**LO7 – To be able to select ad present information in the development of solution to meet an identified need.**		**LO7 – To be able to select ad present information in the development of solution to meet an identified need** **LO5 - To be able to import and manipulate data to develop a solution to meet an identified need**		

LO7 – Select and Present Information (Presentation Software)
 	
• Select and Extract Data.
• Presentation Techniques:
   o Enhancing Text and Objects.
   o Managing Slideshows.
   o Speaker Notes.
   o Customising/Slide Master.
   o Integrating with other Applications.
   o Security Measures.
   o Saving and Exporting.
 	
LO5 – Database Software
• Relational Database.
• Importing Data.
• Data Validation Techniques.
• Forms.
• Macros.
• Queries.
• Reports.
• Appropriate Security Measures.
• Export and Link Data to other Applications.
 	
LO2.3 – Creating Planning Documentation
• Gantt Chart.
• Pert Chart.
	LO7 – Select and Present Information (Desktop Publishing (DTP))	**LO7 – Select and Present Information (Presentation Software)**
		
		• Select and Extract Data.
		• Presentation Techniques:
		   o Enhancing Text and Objects.
		   o Managing Slideshows.
		   o Speaker Notes.
		   o Customising/Slide Master.
		   o Integrating with other Applications.
		   o Security Measures.
		   o Saving and Exporting.
				LO7 and LO5 – Spreadsheet Software
				
				• Formulas and Functions.
				• What If Analysis.
				• Link to External Data.
				• Graphs and Charts.		

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Year 11	LO2 – To be able to initiate and plan a solution to meet an identified need. LO7 – To be able to select ad present information in the development of solution to meet an identified need.	LO7 – To be able to select ad present information in the development of solution to meet an identified need. LO8 – To be able to iteratively review and evaluate the development of the solution.	R013 - Developing Technological Solutions LO2 – To be able to initiate and plan a solution to meet an identified need LO5 - To be able to import and manipulate data to develop a solution to meet an identified need LO7 – To be able to select ad present information in the development of solution to meet an identified need. LO8 – To be able to iteratively review and evaluate the development of the solution.	R013 - Developing Technological Solutions LO2 – To be able to initiate and plan a solution to meet an identified need LO5 - To be able to import and manipulate data to develop a solution to meet an identified need LO7 – To be able to select ad present information in the development of solution to meet an identified need. LO8 – To be able to iteratively review and evaluate the development of the solution.		
	Practice Task for R013 **LO2.1 – Initiate a Project** • Keyword Analysis. • SMART Objectives. • Creation of a Schedule for a Solution. **LO2.2 – Mitigating Risks** **LO2.3 – Creating Planning Documentation** • Gantt Chart. **LO2.4 – Iterative Testing** • Gantt Chart. **LO7 – Present Information Using Appropriate Software Tools and Techniques (Word Processing)**	**LO7 – Present Information Using Appropriate Software Tools and Techniques (Word Processing)** • Convert Table to Text and Text to Table. • Use Referencing Tools. • Create Tables of Contents and Indexes. • Link and Embed to Integrate Data. • Use of Watermarks, Sections, Headers and Footers. • Document Review. • Apply Appropriate Security. • Save and Export in Appropriate Formats.	**R013 - Developing Technological Solutions** • Approximately 20 hours. • An assignment set by OCR, marked by teachers and moderated by OCR. • The assignment will include a context and set of tasks. • A new assignment will be released each series and published on the OCR website.	**R013 - Developing Technological Solutions** • Approximately 20 hours. • An assignment set by OCR, marked by teachers and moderated by OCR. • The assignment will include a context and set of tasks. • A new assignment will be released each series and published on the OCR website.		

	• Convert Table to Text and Text to Table. • Use Referencing Tools. • Create Tables of Contents and Indexes. • Link and Embed to Integrate Data. • Use of Watermarks, Sections, Headers and Footers. • Document Review. • Apply Appropriate Security. • Save and Export in Appropriate Formats.	**LO8 – Iterative Review** • Phase Review. • Final Evaluation.				
	LO5 - To be able to import and manipulate data to develop a solution to meet an identified need	**LO5 - To be able to import and manipulate data to develop a solution to meet an identified need**				
	LO5 – Spreadsheet Software **How to create, edit, delete and process data using appropriate software tools and techniques including: -** • Functions. • Absolute Cell Referencing. • Linking Worksheets. • What if Analysis. • Macros. • Import Data from Different Sources. • Link to External Data. • How to Present Data using Pivot Charts/Tables. Dynamic Charts and Combination Charts.	**LO5 – Database Software** • Relational Database. • Importing Data. • Data Validation Techniques. • Forms. • Macros. • Queries. • Reports. • Appropriate Security Measures. • Export and Link Data to other Applications.				

	• Hide/Unhide Columns and Rows. • Apply Security Measures. • Export and Link Data to other Applications.				