		Topic title	SUMMARY OF KNOWLEDGE ACQUISTION	APPROXIMATE DURATION (Lessons)	Term 1a							Term1b							Term 2a						Term 2b						Term 3a					Term 3b						
					1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4	5	6	7
Year 10																																										
	1	Comp 3 - A1 Modern Technologies	Communication Technologies, Cloud storage, Cloud computing, Cloud technologies, Traditional systems, Implications for organisations	6																																					
	2	Comp 3 - A2 Impact of modern technologies	Changes to modern teams, how organisatons use modern technologies, stakeholders, inclusivity & accessibility, postive & negative impacts of modern technology	6																																					
	3	Comp 3 - B1 Threats to data	Why systems are attacked, external threats, internal threats, impact of security breach	4																																					
		Comp 3 - B2 Prevention and management of threats to data	User access restriction, data level protection, finding weaknesses and improving system security	4																																					
	5	Comp 3 - B3 Policy	Defining responsibilities and security parameters, disaster recovery policy, actions to take after an attack	6																																					
	6	Comp 3 - C1 Responsible use	Shared data, responsible use, environmental considerations	2																																					
	7	Comp 3 - C2 Legal & ethical	Equal access, net neutrality, acceptable use policies, socila v business, data protection principles, data and the internet, intellectual property , criminal use of computer systems	6																																					
	8	Comp 3 - D2 Forms of Notation	Data flow diagrams, flowcharts, system diagrams, tables, written information	6																																					
	10	Comp 1 - A1: What is a user interface?	Definitions of user interfaces, types of interfaces, range of uses	6																																					
	11	Comp 1 - A2: Audience Needs	Factors affecting choice of user interface, Hardware and Software influences	6																																					
	12	Comp 1 - A3: Design principles	Accessibility needs, skill level, demographics, colours, font style/size, language, amount of information, layout, user perception, retaining user attention, intuitive design.	6																																					
	13	Comp 1 - A4: Designing an efficient user interface	Keyboard shortcuts, input messages, eash reversal of actions, large objects, focus time, selection time.	6																																					
	14		Comp 1 LAA Assignment	10																																					
	15	Comp 1 - B1 Project Planning Techniques	Methodologies, Project Planning Basic Tools, SMART aims/objectives, Audience and purpose, Project Requirements	9																																					
	15	Comp 1 - B2 Create a project plan	Constraints, Risks, Timescales, Planning tools: Gantt Charts, Pert charts, Critical Path diagrams	9																																					
		Comp 1 - B3 Creating an initial design	User requirements, Input requirements, Output Requirements, User accessibility needs, Visualisation, Hardware, Software, Testing																																						
		Comp 1 - C1 Developing a User interface	Features - awareness of intended device, user requirements, overall look and feel, inouts, outputs, navigation & ease of use																																						
		Comp 1 - C2 Refining a User interface	Refining the design, Document the changes through each iteration																																						
		Comp 1 - C3 Review	Strengths and Weaknesses of the user interface & project planning techniques																																						
			Comp1 Assignment :AB																																						
Year 11																																										
	1	Comp 2 - A1 Characteristics of data and information	Characteristics of data and information	2																																					
	2	Comp 2 - A2 Representing information	Representing information	2																																					
	3	Comp 2 - A3Ensuring data is suitable for processing	Ensuring data is suitable for processing - validation & verification	2																																					
	4	Comp 2 - A4 Data collection	Data collection - data collection methods & features, big data	2																																					
	5	Comp 2 - A5 Quality of information	Quality of information and its impact on decision making	2																																					
	6	Comp 2 - A6 Sectors that use data modelling	Sectors that use data modelling - types of sectots, data modelling decision making	2																																					
	7	Comp 2 - A7 Threats to individuals	Threats to individuals - invasion of privacy, fraud, targeting vulnerable groups of people	2																																					
	8		Comp 2 Assignment 1 LAA																																						
	9	Comp 2 - B1 Data processing methods	Data processing methods - manipulation & processing methods	6																																					
	10	Comp 2 - B2 Produce a dashboard	Produce a dashboard - data summaries, presentation methods, presentation features	6																																					
	11	Comp 2 - C1 Drawing conclusions	Drawing conclusions based on the data - trends, patterns, anomalies. Errors, making recommendations	6																																					
		Comp 2 - C2 How presentation affects understanding	How presentation affects understanding - information beinf misinterpreted, biased or innaccurate.	6																																					
			Comp 2 Assignment 2 LABC	12																																					
Year 12																																										
	1	Unit 2 - A1 Relational database management systems	Data structures, algebra sets, rekationahips, relational keys, integruty constraints, entity relationashps.	3																																					
	2	Unit 2 -A2 Manipulating data structures and data in relational databases	Data structures, data types, queries, reports, security	9																																					
	3	Unit 2 -A3 Normalisation	Anomalies, primary keys, foreign keys, composite keys, data dictionary, stagis f normalistion	3																																					
	4	Unit 2 -B1 Relational database design	Database design: conceptual, logical and physical modelling and entity relationship modelling , relational algebra, ,user interface, prototyping, quality and appropratreness	15																																					
	5	Unit 2 -B2 Design documentation	Requirements of the brief, data structure designs, user interface design, extracting and presenting data, test plans.																																						
	6	Unit 2 -C1 Producing a database solution	Creating, setting up and maintaining data tables, creating links, relationships between data tables, applying data validation rules, generating outputs – user-generated queries, automated queries, reports, user interface – navigation, data-entry forms, sub-forms, applying security measures to control access to data: passwords, user access levels.																																						
	7	Unit 2 -C2 Testing and refining the database solution	Different types of testing: referential integrity, functionality, security. Selection and use of appropriate test data: erroneous data, extreme data. Using testing outcomes to improve and refine a database solution.	9																																						
	8	Unit 2 -D1 , D2, D3 Database evaluation	D1 Database design evaluation, evaluation of database testing, and evaluation of the database	3																																						
	9		Exam practice	18																																						
	10	Unit 3 - What is social media?	Understand what social media is, Name 5 social media sites used by businesses, ways to promote products and services through social media.	6																																					
	11	Unit 3 - Features, structure and target audience	Research features of social media sites, Identify the structure of different sites, identify the target audience for each social media site.	6																																					
	12	Unit 3 - Social media to support business aims and needs	Use of social media to advertise, Web and mobile device integration, Audience profiling, Business aims and objectives.	6																																					
	13	Unit 3 - Engaging with target audience	Basis of potential social media posts for the business, advertisements, reviews and questionnaire feedback	6																																					
	14	Unit 3 - Developing contacts	Selecting appropriate media, Identify how well businesses can use their media link	6																																					
	15	Unit 3 - Risks and issues	Identify real life disasters that have happened for business who use social media, Why these problems have occurred, How these problems could have been avoided.	6																																					
	16	Unit 3 - Business requirements	How small businesses can promote itself, Why social media does not suit all businesses, The main purpose why businesses use social media- target audience, Which social media websites are most suitable for a small business.	6																																					
	17	Unit 3 - Developing an online community	What information should be posted on social media? Surveys/questioning/ respond to comments. Ways of monitoring social media streams, Ensure links to company's website. Guidelines for content/confidentialty/security. Separating company and personal content, Legal/ethical implications.	6																																					
	18		Unit 3 - Final assignment	30																																					
	1	Unit 1 - A1 Digital devices, their functions and use	Multifunctional devices, the function and use of digital devices	5																																					
	2	Unit 1 - A2 Peripheral devices and media	Peripheral devices used with other digital devices to form part of an IT system. Characteristics and implications of storage media used to form part of an IT system.	5																																					
	3	Unit 1 - A3 Computer software in an IT system	Types of operating system. The role of the operating system in managing. Factors affecting the choice and use of user interfaces. Utility software. Application software. The implications on IT systems, individuals and organisations of the use and selection of file types and formats.	5																																					
	4	Unit 1 - A4 Emerging technologies	The concepts and implications of how emerging technologies affect the performance of IT systems.	5																																					
	5	Unit 1 - A5 Choosing IT systems	Factors affecting the choice of digital technology.	5																																					
	6	Unit 1 - B1 Connectivity	Wireless and wired methods of connecting devices and transmitting data within and between IT systems.	5																																					
	7	Unit 1 - B2 Networks	The features, use and purpose of different networks. How the features of a network and its component parts affect the performance of an IT system.	5																																					
	8	Unit 1 - B3 Issues relating to transmission of data	Protocols used to govern and control data transmission for common tasks. Security issues and considerations when transmitting data over different connection types and networks.	5																																					
	9	Unit 1 - C1 Online systems	The personal and professional uses and applications of cloud storage. The impact and implications on individuals of using cloud storage and computing. Factors affecting the use and selection of online systems.	3																																					
	10	Unit 1 - C2 Online communities	Ways of communicating and interacting with online communities. The implications for individuals of using and accessing online communities.	2																																					
	11	Unit 1 - D1 Threats to data, information and systems	The characteristics of threats to data. The impact of threats to data, information and systems on individuals. The impact of threats to data, information and systems on organisations.	3																																					

12	Unit 1 - D2 Protecting data	The features, characteristics and implications of using antivirus software to protect data. The role of current legislation in protecting data and IT systems from attack and misuse.	2	
13	Unit 1 - E1 Online services	The features and implications of using online services. The uses, impact and implications for individuals and organisations.	5	
14	Unit 1 - E2 Impact on organisations	The features and implications of IT systems used by organisations. The impact and implications for organisations of IT systems.	3	
15	Unit 1 - E3 Using and manipulating data	The characteristics and implications of user interfaces for data collection and processing systems	2	
16	Unit 1 - F1 Moral and ethical issues	The moral and ethical factors of the use of information technology. The purpose and role of codes of practice produced by professional bodies for the use of IT systems	3	
17	Unit 1 - F2 Legal issues	The role of current legislation (and subsequent additions and amendments) in protecting users and their data from attack and misuse.	2	
	Unit 6 - A1 Purpose and principles of website products	Purpose and principles of website products, Media and objects, Creativity and innovation, Search engine optimisation	15	
	Unit 6 - A2 Factors affecting website performance	Where scripts run (on the web server – server-side scripts, or the local client machine – client-side scripts) Browser compliance, e.g. which elements are supported by different browsers.	15	
	Unit 6 - B1 Website design	Problem definition statement requirements: intended audience, full summary of the problem to be solved, constraints, benefits, nature of interactivity, complexity	2	
	Unit 6 - B2 Common tools and techniques used to produce websites	HTML, tables, forms, navigation, interactive components colour schmemes, CSS	2	
	Unit 6 - C1 Client-side scripting languages	Embedding of original client-side scripts into web pages to provide more interactivity and improve the usability of the website.	2	
	Unit 6 - C2 Website development	Use of original client-side scripting, the uploading of files to a web server or host computer/device.	8	
	Unit 6 - C3 Website review	Quality in comparison with other similar websites, suitability for intended purpose and audiencestrengths and improvements.	2	
	Unit 6 - C4 Website optimisation	Performance and user testing, obtaining and evaluating feedback from others, refinements and making improvements to meet client needs to optimise the website.	2	
	Unit 6 - C5 Skills, knowledge and behaviours	Planning and recording, including the setting of relevant targets with timescales, how and when feedback from others will be gathered.	2