



SAMPLE COURSE OUTLINE

APPLIED INFORMATION TECHNOLOGY
GENERAL YEAR 12

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Sample course outline

Applied Information Technology – General Year 12

Unit 3 – Semester 1 – Media information and communications technologies

Week	Syllabus Content	
	Knowledge	Skills
1–3	<p>Course introduction</p> <ul style="list-style-type: none"> overview of Unit 3 assessment requirements <p>Impacts of technology</p> <ul style="list-style-type: none"> referencing techniques for digital publications acknowledgement of the intellectual property (IP) owner <p>Hardware</p> <ul style="list-style-type: none"> purpose of the central processing unit (CPU) purpose of memory/storage types of memory/storage <ul style="list-style-type: none"> primary secondary types of peripheral devices types of computer systems <ul style="list-style-type: none"> desktop systems mobile devices server purpose of an operating system (OS) types of operating systems <ul style="list-style-type: none"> Windows Mac OS iOS Android Linux identification of software compatibility issues, including: <ul style="list-style-type: none"> running older software on current hardware running newer software on older hardware considerations for the purchase of hardware, including: <ul style="list-style-type: none"> cost specifications user needs physical maintenance strategies for use of a computer system, including: <ul style="list-style-type: none"> use of an uninterruptible power supply (UPS) environmental temperature control 	<p>Impacts of technology</p> <ul style="list-style-type: none"> apply appropriate referencing techniques for digital publications <p>Hardware</p> <ul style="list-style-type: none"> select hardware and software for a specified purpose, including the minimum hardware requirements to run software apply problem-solving skills for a range of simple computer problems, including: <ul style="list-style-type: none"> no sound frozen screen, keyboard and mouse no connection to a data projector
4	<p>Project management</p> <ul style="list-style-type: none"> project management considerations, including: <ul style="list-style-type: none"> scope time resources client brief 	<p>Project management</p> <ul style="list-style-type: none"> apply the elements of design and the principles of design relevant to a particular design brief apply a design process to create a digital product, design and/or digital solution

Week	Syllabus Content	
	Knowledge	Skills
	<ul style="list-style-type: none"> components of a project design process, including: <ul style="list-style-type: none"> product purpose and design criteria target audience characteristics project presentation medium techniques for the representation of a design plan, including: <ul style="list-style-type: none"> annotated digital diagrams/sketches storyboards annotated notes thumbnails (hand/digital) criteria required to evaluate a digital product and/or digital solution 	<ul style="list-style-type: none"> apply techniques for representing the design of a digital product and/or digital solution
5–6	<p>Managing data</p> <ul style="list-style-type: none"> purpose of file optimisation for use in print, digital and/or online environments considerations for the compression of files for the transfer and display of data <ul style="list-style-type: none"> purpose lossy compression lossless compression file sizes techniques for file size minimisation <ul style="list-style-type: none"> cropping resampling strategies for efficient online data management strategies for efficient document version control <p>Application skills</p> <ul style="list-style-type: none"> purpose of data organisation common file formats for graphics and audio <ul style="list-style-type: none"> vector graphics raster graphics audio files management of software <ul style="list-style-type: none"> installation of software update of software types of software licences <ul style="list-style-type: none"> open and closed source proprietary shareware freeware composition, layout and design considerations for the construction of spreadsheets organisation and management of data using sort filters in spreadsheets 	<p>Managing data</p> <ul style="list-style-type: none"> use compression to optimise transfer and display of data apply document version control use digital communications media <p>Application skills</p> <ul style="list-style-type: none"> apply data organisation techniques for user and/or client needs apply appropriate graphic and audio file types, including: <ul style="list-style-type: none"> raster graphics vector graphics audio files apply sort filters in spreadsheets

Week	Syllabus Content	
	Knowledge	Skills
7	<p>Impacts of technology</p> <ul style="list-style-type: none"> • purpose of the <i>Copyright Act 1968</i> (Australia), including: <ul style="list-style-type: none"> ▪ fair dealing ▪ private use ▪ moral rights • concept of digital citizenship <ul style="list-style-type: none"> ▪ responsible use of social networking ▪ forms of cyber bullying ▪ strategies to manage/limit cyber bullying • the impact of digital technologies on work-life balance • the concept of social networking • the impact of social networking technologies on traditional methods of information publication and distribution, including use of mobile devices 	
8–15	<p>Design concepts</p> <ul style="list-style-type: none"> • the elements of design <ul style="list-style-type: none"> ▪ line ▪ shape ▪ space ▪ texture ▪ colour • the principles of design <ul style="list-style-type: none"> ▪ balance ▪ emphasis (contrast and proportion) ▪ dominance ▪ unity (proximity and repetition) • relationship between the elements of design and the principles of design • typography <ul style="list-style-type: none"> ▪ typeface ▪ size ▪ alignment ▪ format ▪ spacing • compositional rules <ul style="list-style-type: none"> ▪ rule of thirds ▪ grid and alignment 	<p>Design concepts</p> <ul style="list-style-type: none"> • identify and explain the elements of design and the principles of design in an existing digital product and/or solution • modify a digital product and/or digital solution(s) to meet a design need/consideration • apply the elements of design and principles of design when developing a digital product and/or solution <ul style="list-style-type: none"> ▪ create accurate visuals/layouts ▪ apply principles of layout and composition • develop and apply detailed annotations for digital designs, relevant to a particular design brief • apply the elements of design and the principles of design relevant to a particular design brief

Unit 4 – Semester 2 – Digital technologies in business

Week	Syllabus Content	
	Knowledge	Skills
1	<p>Course introduction</p> <ul style="list-style-type: none"> overview of Unit 4 assessment requirements review of Unit 3 <p>Managing data</p> <ul style="list-style-type: none"> the concept of cloud computing system utility tools and accessories for the efficient operation and maintenance of data, including: <ul style="list-style-type: none"> disk clean-up tools deletion of temporary files/internet cache disk fragmentation anti-malware, anti-virus, SPAM filter, spyware 	<p>Managing data</p> <ul style="list-style-type: none"> use system utility tools and accessories to ensure efficient operation and maintenance of data
2	<p>Project management</p> <ul style="list-style-type: none"> project management techniques, including: <ul style="list-style-type: none"> plan of action time management strategies resource requirements managing resources evaluation 	<p>Project management</p> <ul style="list-style-type: none"> apply project management techniques to meet client requirements or a design brief
3–4	<p>Impacts of technology</p> <ul style="list-style-type: none"> role of the <i>Privacy Act 1988</i> (Australia) on: <ul style="list-style-type: none"> collection of personal information use of personal information access to personal information identity theft safe disposal of data the concept of the 'digital divide' and associated issues, including: <ul style="list-style-type: none"> availability of digital resources dependency of society upon electronic communication use of digital technologies availability of web based applications the concept of electronic commerce, including: <ul style="list-style-type: none"> implications of improved digital communications 24/7 communications issues related to the dependency of society upon electronic and visual communication, including: <ul style="list-style-type: none"> requirement for personal development of technology skills responsibility for maintaining privacy when using technology 	

Week	Syllabus Content	
	Knowledge	Skills
5–7	<p>Networks</p> <ul style="list-style-type: none"> the concept and purpose of computer networking advantages and disadvantages of computer networking types of transmission media, including: <ul style="list-style-type: none"> optic fibre wired wireless the concept of transmission rates network components for internet connection <ul style="list-style-type: none"> server router network interface card (NIC) switch modem network topologies for local area network (LANs) <ul style="list-style-type: none"> wired star wireless client server peer-to-peer 	<p>Networks</p> <ul style="list-style-type: none"> design a suitable LAN topology for a home network
8–10	<p>Application skills</p> <ul style="list-style-type: none"> features of animation software <ul style="list-style-type: none"> frame by frame tweens buttons simple actions <ul style="list-style-type: none"> stop start move object features of audio software, including: <ul style="list-style-type: none"> editing converting exporting 	<p>Application skills</p> <ul style="list-style-type: none"> use animation software edit audio files create a navigation map use web authoring software use multimedia applications to edit and create digital product and/or digital solution
11–16	<p>Application skills</p> <ul style="list-style-type: none"> features of web authoring, including: <ul style="list-style-type: none"> hyperlinks graphics templates types of files <ul style="list-style-type: none"> cascading style sheet (.css) hypertext markup language file (.htm/.html) types of online collaboration the concept of responsive design 	<p>Application skills</p> <ul style="list-style-type: none"> create a navigation map use web authoring software use multimedia applications to edit and create digital product and/or digital solution <p>Project management</p> <ul style="list-style-type: none"> apply project management techniques to meet client requirements for a design brief <p>Design concepts</p> <ul style="list-style-type: none"> apply a design process to create a digital product and/or digital solution identify and explain the elements of design and the principles of design in an existing digital product and/or digital solution

Week	Syllabus Content	
	Knowledge	Skills
		<ul style="list-style-type: none">• modify a digital product and/or digital solution to meet a design need/consideration• apply the elements of design and the principles of design developing a digital product and/or digital solution<ul style="list-style-type: none">▪ create accurate visuals/layouts▪ apply principles of layout and composition• apply the elements of design and the principles of design relevant to a particular design brief