



## SAMPLE COURSE OUTLINE

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**APPLIED INFORMATION TECHNOLOGY**  
**ATAR YEAR 11**

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## Sample course outline

### Applied Information Technology – ATAR Year 11

#### Semester 1 – Unit 1

Week	Key teaching points	
	Knowledge	Skills
1	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>overview</li> <li>assessment requirements</li> </ul> <p><b>Impacts of technology</b></p> <ul style="list-style-type: none"> <li>appropriate referencing techniques for digital publications</li> <li>acknowledgement of the intellectual property (IP) owner</li> </ul> <p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>hardware components of a computer system</li> <li>purpose of the central processing unit (CPU)</li> <li>purpose of memory/storage</li> <li>types of memory/storage               <ul style="list-style-type: none"> <li>primary</li> <li>secondary</li> </ul> </li> <li>types of peripheral devices</li> </ul>	<p><b>Impacts of technology</b></p> <ul style="list-style-type: none"> <li>apply appropriate referencing techniques for digital publications</li> </ul>
2	<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>types of computer systems               <ul style="list-style-type: none"> <li>desktop systems</li> <li>mobile devices</li> <li>server</li> </ul> </li> <li>purpose of an operating system</li> <li>types of operating systems               <ul style="list-style-type: none"> <li>Windows</li> <li>Mac OS</li> <li>iOS</li> <li>Android</li> <li>Linux</li> </ul> </li> <li>functions of an operating system (OS)               <ul style="list-style-type: none"> <li>user interface</li> <li>managing system resources</li> <li>managing security and access rights</li> <li>running applications</li> </ul> </li> <li>identification of software compatibility issues               <ul style="list-style-type: none"> <li>running older software on current hardware</li> <li>newer software running on older hardware</li> </ul> </li> </ul>	<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>describe criteria when selecting hardware and software for a specified purpose, including the minimum hardware requirements to run software</li> </ul>

Week	Key teaching points	
	Knowledge	Skills
3–5	<p><b>Application skills</b></p> <ul style="list-style-type: none"> <li>purpose of data organisation</li> <li>common file formats for graphics and audio <ul style="list-style-type: none"> <li>vector graphics <ul style="list-style-type: none"> <li>computer graphics metafile (.cgm)</li> <li>scalable vector graphic (.svg)</li> </ul> </li> <li>raster graphics <ul style="list-style-type: none"> <li>bitmap (.bmp) image file</li> <li>graphical interchange format (.gif) file</li> <li>joint photographic expert group (JPEG) image file (.jpg/.jpeg)</li> <li>tagged image file (.tif)</li> <li>portable network graphics (.png)</li> </ul> </li> <li>audio files <ul style="list-style-type: none"> <li>moving pictures experts group (.mp3)</li> <li>waveform audio file format (.wav)</li> <li>Windows media audio file (.wma)</li> </ul> </li> </ul> </li> <li>considerations for the construction and design of lookup tables in spreadsheets, including: <ul style="list-style-type: none"> <li>hlookup</li> <li>vlookup</li> </ul> </li> <li>organisation and management of data, using sort filters in spreadsheets</li> </ul> <p><b>Managing data</b></p> <ul style="list-style-type: none"> <li>consideration for the compression of files for the transfer and display of data <ul style="list-style-type: none"> <li>purpose</li> <li>lossy compression</li> <li>lossless compression</li> <li>file sizes</li> </ul> </li> <li>techniques for file size minimisation <ul style="list-style-type: none"> <li>cropping</li> <li>resampling</li> </ul> </li> <li>optimisation of files for <ul style="list-style-type: none"> <li>digital or online</li> <li>print</li> </ul> </li> <li>strategies for efficient online data management</li> <li>strategies for efficient document version control</li> </ul>	<p><b>Application skills</b></p> <ul style="list-style-type: none"> <li>apply data organisation techniques for user and/or client needs</li> <li>apply appropriate graphic and audio file types <ul style="list-style-type: none"> <li>vector graphics</li> <li>raster graphics</li> <li>audio files</li> </ul> </li> <li>use lookup tables in spreadsheets, including: <ul style="list-style-type: none"> <li>hlookup</li> <li>vlookup</li> </ul> </li> <li>composition, layout and design considerations for the construction of spreadsheets</li> <li>apply sort filters in spreadsheets</li> </ul> <p><b>Managing data</b></p> <ul style="list-style-type: none"> <li>use compression to optimise transfer and display of data</li> </ul> <p>• apply document version control</p>
6–8	<p><b>Design concepts</b></p> <ul style="list-style-type: none"> <li>the elements of design <ul style="list-style-type: none"> <li>line</li> <li>shape</li> <li>space</li> <li>texture</li> <li>colour</li> <li>3D form</li> <li>tone</li> </ul> </li> </ul>	<p><b>Design concepts</b></p> <ul style="list-style-type: none"> <li>identify and explain the elements of design and the principles of design in an existing digital product and/or digital solution</li> <li>modify a digital product and/or digital solution to meet a design need/consideration</li> </ul>

Week	Key teaching points	
	Knowledge	Skills
	<ul style="list-style-type: none"> <li>• the principles of design <ul style="list-style-type: none"> <li>▪ balance</li> <li>▪ emphasis (contrast and proportion)</li> <li>▪ dominance</li> <li>▪ unity (proximity and repetition)</li> <li>▪ pattern</li> <li>▪ movement</li> </ul> </li> <li>• relationship between the elements of design and the principles of design</li> <li>• typography <ul style="list-style-type: none"> <li>▪ typeface</li> <li>▪ size</li> <li>▪ alignment</li> <li>▪ format</li> <li>▪ spacing</li> </ul> </li> <li>• compositional rules <ul style="list-style-type: none"> <li>▪ reading gravity</li> <li>▪ rule of thirds</li> <li>▪ form of content</li> <li>▪ grid and alignment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• apply the elements of design and the principles of design developing a digital product and/or digital solution <ul style="list-style-type: none"> <li>▪ create accurate visuals/layouts</li> <li>▪ apply principles of layout and composition</li> </ul> </li> <li>• apply the elements of design and the principles of design relevant to a particular design brief</li> <li>• develop and apply detailed annotations for digital designs relevant to a design brief demonstrating the following considerations: <ul style="list-style-type: none"> <li>▪ elements of design and the principles of design</li> <li>▪ use of appropriate typography</li> <li>▪ visual composition</li> <li>▪ rule of thirds</li> <li>▪ form of content</li> <li>▪ grid and alignment</li> </ul> </li> </ul>
9–11	<p><b>Project management</b></p> <ul style="list-style-type: none"> <li>• components of a project design process <ul style="list-style-type: none"> <li>▪ product purpose and design criteria</li> <li>▪ target audience characteristics</li> <li>▪ project presentation medium</li> <li>▪ situation analysis</li> <li>▪ style guide</li> </ul> </li> <li>• components of a design plan <ul style="list-style-type: none"> <li>▪ storyboard</li> <li>▪ thumbnails (hand/digital)</li> <li>▪ wireframes/sketches (hand/digital)</li> </ul> </li> <li>• criteria required to evaluate a digital product and/or digital solution</li> </ul>	<p><b>Project management</b></p> <ul style="list-style-type: none"> <li>• apply the elements of design and the principles of design relevant to a particular design brief</li> <li>• apply a design process to create a digital product and/or digital solution</li> <li>• apply techniques for representing the design of a digital product and/or digital solution</li> </ul>
12–14	<p><b>Impacts of technology</b></p> <ul style="list-style-type: none"> <li>• concept of digital citizenship <ul style="list-style-type: none"> <li>▪ responsible use of social networking</li> <li>▪ forms of cyber bullying</li> <li>▪ strategies to manage/limit cyber bullying</li> </ul> </li> <li>• the impact of digital technologies on work-life balance</li> <li>• concept of social networking</li> <li>• types of social networking and their features</li> <li>• types of virtual communities, including: <ul style="list-style-type: none"> <li>▪ online chat rooms</li> <li>▪ virtual worlds</li> </ul> </li> <li>• concept of the 'digital divide' and associated issues, including: <ul style="list-style-type: none"> <li>▪ availability of digital resources</li> <li>▪ use of digital technologies</li> <li>▪ availability of web-based applications</li> </ul> </li> </ul>	

Week	Key teaching points	
	Knowledge	Skills
	<ul style="list-style-type: none"><li>• concept of electronic commerce, including:<ul style="list-style-type: none"><li>▪ implications of improved digital communications</li><li>▪ 24/7 communications</li><li>▪ online retail opportunities</li></ul></li><li>• issues related to the dependency of society upon electronic and visual communication in business</li></ul>	
15	Revision	
16	Semester 1 examination	



Week	Key teaching points	
	Knowledge	Skills
6	<p><b>Networks</b></p> <ul style="list-style-type: none"> <li>• concept of computer networking <ul style="list-style-type: none"> <li>▪ purpose</li> <li>▪ advantages</li> <li>▪ disadvantages</li> </ul> </li> <li>• types of transmission media <ul style="list-style-type: none"> <li>▪ optic fibre</li> <li>▪ wired</li> <li>▪ wireless</li> </ul> </li> <li>• the concept transmission rates</li> <li>• network topologies for local area network (LAN) <ul style="list-style-type: none"> <li>▪ wired star</li> <li>▪ wireless</li> <li>▪ client server</li> <li>▪ peer-to-peer</li> </ul> </li> <li>• network components for internet connection for a small business <ul style="list-style-type: none"> <li>▪ server</li> <li>▪ router</li> <li>▪ network interface card (NIC)</li> <li>▪ switch</li> <li>▪ modem</li> </ul> </li> </ul>	<p><b>Networks</b></p> <ul style="list-style-type: none"> <li>• design a suitable LAN topology</li> </ul>
7	<p><b>Project management</b></p> <ul style="list-style-type: none"> <li>• project management techniques <ul style="list-style-type: none"> <li>▪ user/client requirements</li> <li>▪ plan of action</li> <li>▪ time management strategies</li> <li>▪ resources requirements</li> <li>▪ evaluation</li> </ul> </li> </ul> <p>Revision of design concepts</p> <ul style="list-style-type: none"> <li>• the elements of design</li> <li>• the principles of design</li> <li>• relationship between the elements of design and the principles of design</li> <li>• typography</li> <li>• compositional rules</li> </ul>	
8–14	<p><b>Application skills</b></p> <ul style="list-style-type: none"> <li>• features of web authoring <ul style="list-style-type: none"> <li>▪ hyper-links</li> <li>▪ graphics</li> <li>▪ templates</li> <li>▪ types of files <ul style="list-style-type: none"> <li>○ cascading style sheet (.css)</li> <li>○ hypertext markup language file (.htm/.html)</li> </ul> </li> </ul> </li> <li>• types of online collaboration</li> <li>• concept of responsive design</li> </ul>	<p><b>Application skills</b></p> <ul style="list-style-type: none"> <li>• create a navigation map</li> <li>• use web-authoring software</li> <li>• use multimedia applications to edit and create a digital product and/or digital solution</li> </ul> <p><b>Project management</b></p> <ul style="list-style-type: none"> <li>• apply project management techniques to meet client requirements or a design brief</li> </ul>



Week	Key teaching points	
	Knowledge	Skills
		<p><b>Design concepts</b></p> <ul style="list-style-type: none"> <li>• apply a design process to create a digital product and/or digital solution</li> <li>• identify and explain the elements of design and the principles of design in an existing digital product and/or digital solution</li> <li>• modify a digital product and/or digital solution to meet a design need/consideration</li> <li>• apply the elements of design and the principles of design developing a digital product and/or digital solution <ul style="list-style-type: none"> <li>▪ create accurate visuals/layouts</li> <li>▪ apply principles of layout and composition</li> </ul> </li> <li>• apply the elements of design and the principles of design relevant to a particular design brief</li> <li>• develop and apply detailed annotations for digital designs relevant to a design brief demonstrating the following considerations: <ul style="list-style-type: none"> <li>▪ elements of design and the principles of design</li> <li>▪ use of appropriate typography</li> <li>▪ visual composition</li> <li>▪ rule of thirds</li> <li>▪ form of content</li> <li>▪ grid and alignment</li> </ul> </li> </ul>
15	Revision	
16	Semester 2 examination	