



Government of **Western Australia**
School Curriculum and Standards Authority

SAMPLE COURSE OUTLINE

APPLIED INFORMATION TECHNOLOGY
ATAR YEAR 12

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Sample course outline

Applied Information Technology – ATAR Year 12

Unit 3 – Evolving digital technologies

Week	Syllabus Content	
	Knowledge	Skills
1–3	<p>Introduction</p> <ul style="list-style-type: none"> overview of Unit 3 assessment requirements <p>Hardware</p> <ul style="list-style-type: none"> specifications of digital devices and their impact upon usability characteristics of development trends in emerging mobile devices suitability of emerging mobile devices to meet client (user) needs usability of digital devices for specified client requirements 	<p>Hardware</p> <ul style="list-style-type: none"> evaluate computer system specifications for usability compare various mobile devices with other computer systems
4–5	<p>Design concepts</p> <ul style="list-style-type: none"> relationship(s) between the elements of design and the principles of design features of a user interface <ul style="list-style-type: none"> logical and hierarchical organisation of content graphical user interface (GUI) suitable for target audience relevant help features of a graphical user interface <ul style="list-style-type: none"> usability inclusivity accessibility 	
6–9	<p>Application skills</p> <ul style="list-style-type: none"> online software tools video application features <ul style="list-style-type: none"> multi-layer track editing titles transitions effects sound application features, including sound effects publishing features <ul style="list-style-type: none"> colour schemes layers frames typography templates print/display option types of digital publications 	<p>Application skills</p> <ul style="list-style-type: none"> use appropriate application software create templates suitable for use in appropriate application software use video and/or sound application for multi-layer track editing use multimedia software to create interactive digital products and/or digital solutions use of the publishing features for a chosen digital medium <ul style="list-style-type: none"> colour profiles layers frames typography print/display options create digital publications

Week	Syllabus Content	
	Knowledge	Skills
	<ul style="list-style-type: none"> advantages and disadvantages of different types of digital publications 	<p>Design concepts</p> <ul style="list-style-type: none"> annotate designs when working on a digital product and/or digital solution use appropriate elements of design and the principles of design for a chosen digital medium create logical and hierarchical organisation of content develop navigation controls suitable to the chosen digital medium critically analyse the relationship(s) between the elements of design and the principles of design
10	<p>Impacts of technology</p> <ul style="list-style-type: none"> the concept of intellectual property (IP) intention and purpose of IP in Australia in relation to copyright and/or design of digital products the concept of online defamation in Australia legal action available in Australia to counteract online defamation the concept of freedom of information (FOI) in Australia the rights and responsibilities of the <i>Freedom of Information Act 1982</i> (Australia) in regards to digital products key provisions of FOI in Australia in relation to digital products advantages, disadvantages and implications of virtual and physical collaboration impact of convergence trends in contemporary digital technologies 	
11–14	<p>Project management</p> <ul style="list-style-type: none"> project management approaches <ul style="list-style-type: none"> prototype structured project planning tools <ul style="list-style-type: none"> storyboards site maps flow charts Gantt charts project management software considerations for a digital product and/or digital solution <ul style="list-style-type: none"> structure usability accessibility user experience (UX) user interface (UI) 	<p>Project management</p> <ul style="list-style-type: none"> choose an appropriate project management approach for the development of the chosen digital solution develop processes and documentation to build a project brief(s) plan a digital solution project in detail apply project management techniques to meet client requirements when creating a digital solution produce draft design plans/drawings to represent concepts use appropriate functionality tools to create visual layouts

Week	Syllabus Content	
	Knowledge	Skills
15	Revision	
16	Semester 1 Examination	

Unit 4 – Digital technologies within a global society

Week	Syllabus Content	
	Knowledge	Skills
1–2	<p>Introduction</p> <ul style="list-style-type: none"> overview of Unit 4 assessment requirements <p>Networks</p> <ul style="list-style-type: none"> types and characteristics of communication protocols, including: <ul style="list-style-type: none"> transmission control protocol/internet protocol (TCP/IP) hypertext transfer protocol (HTTP) hypertext transfer protocol over secure socket layer (HTTPS) types and characteristics of communication standards, including: <ul style="list-style-type: none"> 802.11x (wireless) 802.3 (ethernet) types of network security measures <ul style="list-style-type: none"> firewalls passwords physical security 	<p>Networks</p> <ul style="list-style-type: none"> design a LAN justify the design of a LAN
3	<p>Project management</p> <ul style="list-style-type: none"> concept of service level agreements features of service level agreements, including: <ul style="list-style-type: none"> availability of service type of services advantages of local and global outsourcing compared with in-house production purpose of outsourcing data management evaluation of software, including usability 	<p>Project management</p> <ul style="list-style-type: none"> apply project management techniques to meet client requirements apply a design process to create a digital solution use appropriate tools to evaluate the effectiveness of a digital solution in accordance with the design brief <ul style="list-style-type: none"> surveys client feedback self-reflection
4–5	<p>Impacts of technology</p> <ul style="list-style-type: none"> data and information security related to personal or sensitive information purpose of a code of conduct elements of a code of conduct, including: <ul style="list-style-type: none"> work hours employee email use employee internet use employee privacy employer’s monitoring of work emails, internet access and computer use online censorship of information in a global context issues with the use of cloud computing <ul style="list-style-type: none"> confidentiality of data sensitivity of documents level of accessibility availability of online applications 	

Week	Syllabus Content	
	Knowledge	Skills
	<ul style="list-style-type: none"> • impact of digital technologies and global markets on: <ul style="list-style-type: none"> ▪ productivity ▪ access to knowledge or resources ▪ outsourcing • impact of Web 2.0/Web 3.0 on the use of digital technologies 	
6–8	<p>Managing data</p> <ul style="list-style-type: none"> • security techniques for the management of data, including: <ul style="list-style-type: none"> ▪ disaster recovery plan ▪ audit trail • types of backup techniques and archiving of data <ul style="list-style-type: none"> ▪ full ▪ differential ▪ incremental • online data storage methods <ul style="list-style-type: none"> ▪ data warehouses ▪ data marts ▪ data in the cloud • purpose of data mining • processing of data considering security of data through the use of <ul style="list-style-type: none"> ▪ passwords ▪ firewalls ▪ biometrics ▪ anti-virus software ▪ digital signatures ▪ digital certificates ▪ encryption 	<p>Managing data</p> <ul style="list-style-type: none"> • analyse sources of information for verifiability, accuracy and currency • test and evaluate online applications for browser compatibility • apply the Web Design and Applications standard from the W3C standards as relevant
9–14	<p>Managing data</p> <ul style="list-style-type: none"> • concept of user-generated content • advantages and disadvantages of user generated content • concept of hypertext markup language (.htm/.html) • concept of Web 2.0 and Web 3.0 • purpose and features of content management systems (CMS) • purpose of world wide web consortium (W3C) • purpose of W3C conventions • purpose of the Web Design and Applications standard from the W3C standards, including: <ul style="list-style-type: none"> ▪ HTML and CSS ▪ Graphics ▪ Audio and video ▪ Accessibility ▪ Internationalization 	

Week	Syllabus Content	
	Knowledge	Skills
	<ul style="list-style-type: none">▪ Mobile web• validation techniques for online forms Application skills <ul style="list-style-type: none">• how digital communication is used for educational purposes	Application skills <ul style="list-style-type: none">• use available functions of online software• use online tools for tutorials/learning• use forms for online data collection
15	Revision	
16	Semester 2 Examination	