

# Information and Communication Technology 2019

Typical  
Study plan

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## Section 1: School statement

<b>School:</b>	Queensland Curriculum and Assessment Authority
<b>Subject code:</b>	6406
<b>Combined class:</b>	No
<b>School contact:</b>	PEO
<b>Phone:</b>	(07) 3864 0375
<b>Email:</b>	InformationAndCommunicationTechnology@qcaa.qld.edu.au

## Section 2: Course and assessment overview

Information and Communication Technology is a four-unit course of study.

Units 1 and 2 of the course are designed to allow students to begin their engagement with the course content, i.e. the knowledge, understanding and skills of the subject. Course content, learning experiences and assessment increase in complexity across the four units as students develop greater independence as learners.

Units 3 and 4 consolidate student learning.

## QCAA approval

<b>QCAA officer:</b>	<b>Date:</b>
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Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
1	<p><b>Module 1: Graphic design</b> Students will use basic image manipulation techniques to produce digital images using appropriate hardware and software for a particular context. Students will employ practices to ensure the ethics, security and safety of the user when engaging in image manipulation. Students will identify emerging trends in online communities and use data management techniques to enable access, storage, security and organisation of information.</p>	28	<ul style="list-style-type: none"> <li>Data management</li> <li>Digital imaging and modelling</li> <li>Online communication</li> </ul>	<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <p><b>Software</b></p> <ul style="list-style-type: none"> <li>C2.1 Software has different purposes and functions</li> <li>C2.2 There are both common interface features and specific techniques when using software</li> <li>C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <p><b>ICT in society</b></p> <ul style="list-style-type: none"> <li>C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>C3.3 Society is affected by past, new and emerging ICT</li> </ul>	1	<p><b>Project</b> Produce a magazine cover for a client using image-editing software and analyse and evaluate the manipulation of published images.</p> <ul style="list-style-type: none"> <li>Product component Magazine cover. Variable conditions</li> <li>Multimodal component Presentation of analysis and evaluation. 2.0–4.0 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Knowing and understanding</li> <li>Analysing and applying</li> <li>Producing and evaluating</li> </ul>

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
1	<b>Module 2: Web development</b> Students will plan and produce a multimedia website to solve a technical problem. Students will apply best practice by synthesising W3C web standards, current trends and accessibility guidelines. Students will use navigation and visual hierarchy principles and techniques to organise website data.	27	<ul style="list-style-type: none"> <li>Data management</li> <li>Online communication</li> <li>Website production</li> </ul>	<b>Hardware</b> <ul style="list-style-type: none"> <li>C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <b>Software</b> <ul style="list-style-type: none"> <li>C2.1 Software has different purposes and functions</li> <li>C2.2 There are both common interface features and specific techniques when using software</li> <li>C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <b>ICT in society</b> <ul style="list-style-type: none"> <li>C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>C3.3 Society is affected by past, new and emerging ICT</li> </ul>	2	<b>Project</b> Plan and produce a website for a client. Analyse and evaluate the web development process and make recommendations for future improvements against criteria. <ul style="list-style-type: none"> <li>Product component               <ul style="list-style-type: none"> <li>Website.</li> <li>Variable conditions</li> </ul> </li> <li>Spoken component               <ul style="list-style-type: none"> <li>Podcast explaining and evaluating the development process and making recommendations for future improvements.</li> <li>1.5–3.5 minutes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Knowing and understanding</li> <li>Analysing and applying</li> <li>Producing and evaluating</li> </ul>

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
2	<b>Module 3: Mobile applications</b> Students will identify and examine common interface features of mobile technologies and analyse Android and iOS operating systems to evaluate their effectiveness, usability and functionality in terms of online data management and communication respectively.	21	<ul style="list-style-type: none"> <li>Data management</li> <li>Online communication</li> </ul>	<b>Hardware</b> <ul style="list-style-type: none"> <li>C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <b>Software</b> <ul style="list-style-type: none"> <li>C2.1 Software has different purposes and functions</li> <li>C2.2 There are both common interface features and specific techniques when using software</li> <li>C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <b>ICT in society</b> <ul style="list-style-type: none"> <li>C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>C3.3 Society is affected by past, new and emerging ICT</li> </ul>	3	<b>Extended response</b> Analyse and evaluate the navigation interfaces of Android and iOS operating systems in terms of online data management and communication. Make justified recommendations that promote safe and secure data management practices for users with mobile phones, with regards to navigation apps. <ul style="list-style-type: none"> <li>Spoken response                Oral presentation of analysis, evaluation and recommendations.                2.0–4.0 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Knowing and understanding</li> <li>Analysing and applying</li> <li>Producing and evaluating</li> </ul>

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
2	<b>Module 4: Game development I</b> Students will plan and produce a digital game using object-oriented programming. The game will include essential game mechanics and user interface elements with ethical and safe use of images and other visual features. Students will also examine relevant health and safety legislation, guidelines and procedures for users.	34	<ul style="list-style-type: none"> <li>• Application development</li> <li>• Digital imaging and modelling</li> </ul>	<b>Hardware</b> <ul style="list-style-type: none"> <li>• C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>• C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>• C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <b>Software</b> <ul style="list-style-type: none"> <li>• C2.1 Software has different purposes and functions</li> <li>• C2.2 There are both common interface features and specific techniques when using software</li> <li>• C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>• C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <b>ICT in society</b> <ul style="list-style-type: none"> <li>• C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>• C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>• C3.3 Society is affected by past, new and emerging ICT</li> </ul>	4	<b>Project</b> Plan and produce a game using object-oriented programming that solves a creative problem. Analyse and evaluate the final product and make recommendations for healthy and safe use. <ul style="list-style-type: none"> <li>• Product component Game. Variable conditions</li> <li>• Multimodal component Presentation of analysis and evaluation with justified recommendations. 2.0–4.0 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
3	<b>Module 5: Game development II</b> Students will plan and produce a digital game using object-oriented programming. The game will include intermediate game mechanics with secure and safe use of user data and ethical use of images and other visual features.	55	<ul style="list-style-type: none"> <li>• Application development</li> <li>• Data management</li> <li>• Online communication</li> </ul>	<b>Hardware</b> <ul style="list-style-type: none"> <li>• C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>• C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>• C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <b>Software</b> <ul style="list-style-type: none"> <li>• C2.1 Software has different purposes and functions</li> <li>• C2.2 There are both common interface features and specific techniques when using software</li> <li>• C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>• C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <b>ICT in society</b> <ul style="list-style-type: none"> <li>• C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>• C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>• C3.3 Society is affected by past, new and emerging ICT</li> </ul>	5	<b>Extended response</b> Analyse the MMORPG stimulus to identify common online communication methods. Evaluate the effectiveness of these methods to maintain the ethics, security and safety of users. <ul style="list-style-type: none"> <li>• Multimodal response Presentation of analysis and evaluation with justified recommendations for improvement. 4.0–7.0 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>
					6	<b>Project</b> Plan and produce a game using object-oriented programming that solves a technical problem. Explain and evaluate the problem-solving process. <ul style="list-style-type: none"> <li>• Product component Game. Variable conditions</li> <li>• Spoken component Podcast explaining and evaluating the problem-solving process. 2.5–3.5 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
4	<p><b>Module 6: Presenting me</b> This module focuses on the development of a personal digital presence online. Students will produce a web resume, including video, images and text. Students will use appropriate software and hardware and follow practices to ensure ethical use, security and safety of the user.</p>	55	<ul style="list-style-type: none"> <li>Digital imaging and modelling</li> <li>Online communication</li> <li>Website production</li> </ul>	<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>C1.1 Hardware components and peripheral devices of a computer system have specific functions and specifications</li> <li>C1.2 Computer hardware and components should be identified and selected for specific user needs and purposes</li> <li>C1.3 Hardware support systems provide technical information to troubleshoot problems</li> </ul> <p><b>Software</b></p> <ul style="list-style-type: none"> <li>C2.1 Software has different purposes and functions</li> <li>C2.2 There are both common interface features and specific techniques when using software</li> <li>C2.3 Software support systems provide technical information to troubleshoot problems</li> <li>C2.4 Data management techniques ensure access, storage, security and organisation of information</li> </ul> <p><b>ICT in society</b></p> <ul style="list-style-type: none"> <li>C3.1 Appropriate equipment, procedures and techniques need to be used when working with computers to protect health and ensure safety</li> <li>C3.2 Specific practices exist to ensure the ethical use, security and safety of the user</li> <li>C3.3 Society is affected by past, new and emerging ICT</li> </ul>	7	<p><b>Extended response</b> Analyse a blog or website and synthesise information and ideas regarding the ethics, security and safety of users to evaluate its effectiveness in creating an online presence.</p> <ul style="list-style-type: none"> <li>Spoken response Podcast analysing and evaluating blog/website to make recommendations. 3.0–4.0 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Knowing and understanding</li> <li>Analysing and applying</li> <li>Producing and evaluating</li> </ul>
					8	<p><b>Project</b> Plan and produce a mobile-first website to solve a creative problem. Evaluate the effectiveness, usability, functionality and suitability of the final product and make justified recommendations for improvement.</p> <ul style="list-style-type: none"> <li>Product component Website. Variable conditions</li> <li>Written component Folio documenting the design process, evaluation and recommendations. 500–900 words</li> </ul>	<ul style="list-style-type: none"> <li>Knowing and understanding</li> <li>Analysing and applying</li> <li>Producing and evaluating</li> </ul>

# Information and Communication Technology 2019

Typical

Teacher:

Class:

Student name:

Year:

Unit	Module of work	Assessment Instrument No.	Assessment Instrument	Formative or Summative	Knowing and understanding	Analysing and applying	Producing and evaluating
1	<b>Module one</b> Graphic design	1	Project	F			
	<b>Module two</b> Web development	2	Project	F			
2	<b>Module three</b> Mobile applications	3	Extended response	F			
	<b>Module four</b> Game development I	4	Project	F			
Interim Standards							
Interim Result							
3	<b>Module five</b> Game development II	5	Extended response	S			
		6	Project	S			
4	<b>Module six</b> Presenting me	7	Extended response	S			
		8	Project	S			
Exit Standards							
Exit Result							