

Module Title:	Developing for Games Devices
Language of Instruction:	English
Credits:	5
NFQ Level:	7
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	The course material is delivered in a studio environment in which students are given lectures, including guest lecturers from industry, interactive labs, and practical exercises. In tandem, students design and develop a single player game for mobile/web and then develop a multiplayer mode for this game.
Module Aim:	Design and develop games for mobile and web platforms.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Design and implement 2D mobile and web games
LO2	Design and implement networked games for mobile and web
LO3	Deploy and test games on mobile and web
LO4	Submit a game to an app store
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content
Development environment Introduction to tools for development, debugging, source control, project management; coding standard
Basic animation and graphics Game design, game loop, rendering primitives, game input (keyboard, mouse), movement, collision detection, particle systems
User interface UI/UX, managing game states
Sprite animation and audio Sprite animation, asset manager, loading files, sprite sheets, texture packing, sound effects, background music
Device development Deployment, debugging, game input (touch), audio, loading metadata, persistence of game data, integrating sub-systems, game balance, playtesting
Multiplayer games Sockets, serialisation, message based systems, player management, session management, cloud hosting, server deployment
Store submission Submission process, asset preparation, distribution build, testing distribution build

Assessment Breakdown	%
Continuous Assessment	40.00%
Project	60.00%

Continuous Assessment				
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Assessment Date</i>
Examination	Class test	1,2,3,4	10.00	n/a
Other	Learning Resource 1	1,2,3	10.00	n/a
Other	Learning Resource 2	1,2,3	10.00	n/a
Practical/Skills Evaluation	Labs	1,2,3	10.00	n/a

Project				
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Assessment Date</i>
Project	Project 1	1,3	30.00	Sem 1 End
Project	Project 2	1,2,3,4	30.00	Sem 2 End

No Practical

No End of Module Formal Examination

ITCarlow reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Laboratory	20 Weeks per Stage	4.00
Estimated Learner Hours	20 Weeks per Stage	1.00
	Total Hours	100.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCGD_B	Bachelor of Science (Honours) in Computer Games Development	3	Mandatory