University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: Games Development Portfolio Project			
Code: COMP09114	**SCQF Level: 9 (Scottish Credit and Qualifications Framework)**	**Credit Points: 30**	**ECTS: 10 (European Credit Transfer Scheme)**
School:	School of Computing, Engineering and Physical Sciences		
Module Co-ordinator:	Dr Gavin Baxter		

Summary of Module

This module provides the student with an opportunity to design a game replicating the realism of working as a small game's development studio. The students are involved in development, game design, project planning, prototype and full product creation, testing, user evaluation and full implementation of their game. The module provides students with a firm understanding, knowledge and experience of what it is like to work in a project team (akin to a games studio) taking them through the entire process of conceptualising a game idea through to final implementation.

The module places a firm emphasis upon equipping students with the entrepreneurial and world-ready meta-skills required to progress towards a career in the games industry. Teamwork and communication are key skills accentuated in the module and are key graduate attributes required within the games sector.

The module is delivered over two academic terms and is run on-campus with lectures and labs provided to enhance support and guidance through the module for students.

- The scope and overall remit of the module is to provide students with a collaborative experience of working in a project environment akin to a game's studio. From the initial conceptualisation of their game idea students will work in teams in all aspects of the development of their game throughout the full duration of their project life cycle.

- The module will inform students about basic concepts of software engineering which will be embedded in the coursework. For example, students will be informed about the relevancy of software development methodologies and software testing approaches within the context of implementing their games.

- Throughout the duration of the module students will enhance their team working and communication skill sets with a view to identifying which ones to improve upon whilst working in their project teams.

- The module supports students in their abilities to work autonomously and collaboratively in their project roles towards critically thinking about planning and developing their games.
- A specific purpose of this module is for students to develop their games with a view to developing them as a portfolio piece to show to prospective employers or at industry or university run events. Students are regularly encouraged throughout the module to showcase their work on LinkedIn to promote their online presence for employability purposes.
- This module embeds the key "I am UWS" graduate attributes and in particular: Universal (Critical Thinker, Analytical, Culturally aware, Collaborative), Work Ready (effective communicator, motivated) and Successful (Driven, Transformational).

Module Delivery Method					
Face-To-Face	**Blended**	**Fully Online**	**HybridC**	**Hybrid 0**	**Work-Based Learning**
☒	☐	☐	☐	☐	☐
See Guidance Note for details.					

Campus(es) for Module Delivery						
The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)						
Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
☒	☐	☐	☐	☐	☐	Add name

Term(s) for Module Delivery					
(Provided viable student numbers permit).					
Term 1	☒	Term 2	☒	Term 3	☐

Learning Outcomes: (maximum of 5 statements) **These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.** At the end of this module the student will be able to:	
L1	Demonstrate an understanding of the development process involved in creating a game in a team environment.
L2	Develop and implement a game as part of a team illustrating evidence of good project teamwork and communication.

L3	Demonstrate and provide an understanding of how to formulate games design and technical documents.
L4	Demonstrate knowledge of basic concepts of software engineering and testing in relation to the game's development life cycle.
L5	Personally reflect upon the processes involved in game design in the context of a project team.

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level **9** Students will demonstrate a broad and integrated knowledge of the subject and discipline of video games creation and preparation for video games creation. Students must also demonstrate a good understanding of the principles of project management and version control, documenting the various stages of a project's progression, provide evidence of their practical skills as well as decision making. Students must also demonstrate a basic understanding of some principles associated with software engineering such as software development methodologies and software testing approaches. These methodologies and approaches will be justified and evidenced with regards to the overall development of the game.
Practice: Applied Knowledge and Understanding	SCQF Level **9** Students will demonstrate knowledge and understanding of their practical development skills in the creation of their game. This will be achieved via evidence of good documenting of coding practice to evidence the development of the game. Students will demonstrate an understanding of the various elements required in the creation of a games design document documenting this throughout the duration of the project life cycle.
Generic Cognitive skills	SCQF Level 9 Students will critically analyse their development ideas and software used to ensure the end-product (i.e. the game) will be developed in accordance with the games design document. Project teams will reflect on the decisions made with regards to the creation of their game and collectively justify their choices that have impacted on the overall direction of their project.

	Students will recognise and adapt to deal with issues that arise in the group and deal with these via a suitable project management approach.	
Communication, ICT and Numeracy Skills	SCQF Level **9** Students will select from and use wide range development tools to create their game justifying their reasons for doing so. Students will communicate with project team members remotely online or face-to-face (F2F) to plan and work constructively together throughout the duration of their project.	
Autonomy, Accountability and Working with others	SCQF Level **9** Students will exercise autonomy and initiative within a team to act upon advice and input from the lecturer. Students will ensure the game being developed is not ethically, morally or legally dubious and seek advice from the lecturer prior to commencing their game concept	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code: COMP08035	**Module Title: Computer Game Design**
	Other:	
Co-requisites	**Module Code:**	**Module Title:**

*Indicates that module descriptor is not published.

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	12
Laboratory/Practical Demonstration/Workshop	60
Independent Study	228
	300 Hours Total

****Indicative Resources: (eg. Core text, journals, internet access)**

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Chandler, H. M. (2014), The Game Production Handbook. 3rd ed. Burlington, Mass: Jones & Bartlett Learning.

Gregory, J. (2014), Game Engine Architecture. 2nd ed. London: CRC Press.

Hill-Whittall, R. (2015), The Indie Game Developer Handbook. Focal Press.

Hocking, J. (2015), Unity in action: multiplatform game development in C#. Shelter Island, N.Y: Manning Publications.

Johnson, M. and Henley, J.A. (2015), Learning 2D game development with Unity: a hands-on guide to game creation. Upper Saddle River, N.J: Harlow: Addison-Wesley.

Kremers, R. (2010), Level Design: Concept, Theory, & Practice. Mass: A K Peters, Ltd.

Lavieri, E. (2015), Getting started with Unity 5: leverage the power of Unity 5 to create amazing 3D games. Birmingham: Packt Publishing.

Rogers, S. (2014), Level up!: the guide to great video game design. 2nd ed. Chichester: Wiley.

Schell, J. (2015), The art of game design: a book of lenses. Boca Raton: London: CRC Press.

Solarski, C. (2012), Drawing basics and video game art: classic to cutting-edge art techniques for winning video game design. New York, N.Y.: Watson-Guptill.

Thorn, A. (2015), Practical game development with Unity and Blender. Boston, Mass: Cengage Learning PTR.

Totten, C. (2012), Game character creation with Blender and Unity. Indianapolis, Ind.: Wiley.

(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure: Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

In line with the Academic Engagement and Attendance Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on Aula, and complete assessments and submit these on time.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. Please ensure any specific requirements are detailed in this section. Module Co-ordinators should consider the accessibility of their module for groups with protected characteristics..
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	Computing
Assessment Results (Pass/Fail)	Yes ☐No ☒
School Assessment Board	Creative Computing
Moderator	Dr Thomas Hainey
External Examiner	N Whitton
Accreditation Details	This module is accredited by BCS as part of a number of specified programmes. This module is also TIGA accredited.
Changes/Version Number	1.04

Assessment: (also refer to Assessment Outcomes Grids below)
This section should make transparent what assessment categories form part of this module (stating what % contributes to the final mark). Maximum of 3 main assessment categories can be identified (which may comprise smaller elements of assessment). **NB: The 30% aggregate regulation (Reg. 3.9) (40% for PG) for each main category must be taken into account. When using PSMD, if all assessments are recorded in the one box, only one assessment grid will show and the 30% (40% at PG) aggregate regulation will not stand. For the aggregate regulation to stand, each component of assessment must be captured in a separate box.**

Please provide brief information about the overall approach to assessment that is taken within the module. In order to be flexible with assessment delivery, be brief, but do state assessment type (e.g. written assignment rather than “essay” / presentation, etc) and keep the detail for the module handbook. Click or tap here to enter text.
Assessment 1 – Game Design Document and Prototype (50%)
Assessment 2 – Technical Design Document and Full Implementation (50%)
(N.B. (i) **Assessment Outcomes Grids** for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Assessment Outcome Grids (See Guidance Note)

Component 1							
Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Learning Outcome (4)**	**Learning Outcome (5)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Design/ Diagram/ Drawing/ Photograph/ Sketch			✓	✓	✓	35	0
Creative output/ Audiotapes/ Videotapes/ Games/ Simulations	✓	✓				15	0

Component 2							
Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Learning Outcome (4)**	**Learning Outcome (5)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Creative output/ Audiotapes/ Videotapes/ Games/ Simulations			✓	✓	✓	45	0
Presentation	✓	✓			✓	5	1

Combined Total for All Components	**100%**	**1 hours**