Module Descriptor

Title	Games Development Portfolio Project		
Session	2025/26	**Status**	Published
Code	COMP09114	**SCQF Level**	9
Credit Points	30	**ECTS (European Credit Transfer Scheme)**	15
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Dr Thomas Hainey		

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	**On-Campus[1]** ☒		**Hybrid[2]** ☐	**Online[3]** ☐	**Work -Based Learning[4]** ☐	
Campuses for Module Delivery	☐ Ayr ☐ Dumfries		☐ Lanarkshire ☐ London ☒ Paisley		☐ Online / Distance Learning ☐ Other (specify)	
Terms for Module Delivery	Term 1	☐	Term 2	☐	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☒	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
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 9** Students will demonstrate a broad and integrated knowledge of the subject and discipline of video games creation and preparation for video games creation.

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

	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 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 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 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	**Please select SCQF Level** 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.

Prerequisites	**Module Code** COMP08035	**Module Title** Computer Games Design
	Other	
Co-requisites	**Module Code**	**Module Title**

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 (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
Please select	
Please select	
Please select	
TOTAL	300

Indicative Resources

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:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

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. Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.
(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	**Please select**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☒ **Yes** ☐ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Professor Sylvestyer Arnab
Moderator	Dr Thomas Hainey
External Examiner	Professor Sylvester Arnab
Accreditation Details	TIGA
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	Version 1

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Assessment 1 – Game Design Document and Prototype (50%)
Assessment 2

Assessment 2 – Technical Design Document and Full Implementation (50%)
Assessment 3
(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.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Design/ Diagram/ Drawing/ Photograph/ Sketch Creative output/ Audiotapes/ Videotapes/ Games/ Simulations	☐	☐	☒	☒	☒	50	0

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Creative output/ Audiotapes/ Videotapes/ Games/ Simulations Presentation	☒	☒	☐	☐	☒	50	1

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	1 hours

Change Control

What	**When**	**Who**
