



School of Computing, Engineering and Built Environment

Programme Specification for

BSc/BSc (Hons) Games Development

2023-24

October 2023

Programme Specification Pro-forma (PSP)

1. GENERAL INFORMATION

1. Programme Title:	BSc (Hons) Games Development (Software) or (Design)
2. Final Award:	BSc (Hons) Games Development (Design) BSc (Hons) Games Development (Design) (Sandwich) BSc (Hons) Games Development (Software)
3. Exit Awards:	BSc (Hons) Games Development (Software) (Sandwich) Certificate of Higher Education in Games Development, Diploma of Higher Education in Games Development (Design) BSc Games Development (Design) BSc Games Development (Design) (Sandwich) Certificate of Higher Education in Games Development Diploma of Higher Education in Games Development (Software) BSc Games Development (Software) BSc Games Development (Software)(Sandwich)
4. Awarding Body:	Glasgow Caledonian University
5. Period of Approval:	March 2021 to March 2026
6. School:	School of Computing, Engineering and Built Environment
7. Host Department:	Department of Applied Computer Games
8. UCAS Code:	G750 ScreenSkills
9. PSB Involvement:	City Campus
10. Place of Delivery:	Computing
11. Subject Benchmark Statement:	Computing
12. Dates of PSP Preparation/Revision:	Feb 2024

2. EDUCATIONAL AIMS OF THE PROGRAMME

Pathway 1 – Games Development (Software):

- To provide students with the necessary software engineering knowledge and skills to equip them for a career in the development and technical implementation of computer games;
- To provide students with a specific understanding of the concepts, processes, methods and tools, and their application, in the development and technical implementation of computer games;
- To enable students to develop a cultural understanding of computer games and the computer games industry;
- To develop a critical approach to the evaluation of computer games;
- To develop the ability to apply sound design principles and practical skills
- To enable students to acquire good skills in analysis, synthesis and communication;
- To enable students to take responsibility for their own learning as they progress through the programme;
- To assist the student in developing the skills required in adapting to changing technological and organisational developments and learning new skills;
- To provide articulation opportunities to access the programme for students with appropriate prior accredited learning experiences
- To provide education and training which is accredited by the ScreenSkills
- To provide opportunity to further develop practical, personal and professional course skills in a work-based environment

Expected Levels of Attainment

- On successful completion of level 1 of study a student should have a basic knowledge and understanding of the application of technical development and design skills applicable to a

wide range of computing based systems needs including the development of Computer Games.

- On successful completion of level 2 of study a student should have a sound knowledge and competent application of technical development and game play design skills across a range of game genres and implementation platforms.
- On successful completion of level 3 of study a student should be able to develop, implement and support computer games across a wide variety of game genres in response to the specification of a perceived industry need, in accordance with fundamental principles and methods, using appropriate.
- On successful completion of level H of study a student should, in addition, be able to critically evaluate alternative game solution approaches and genres and be able to use advanced development and implementation techniques in the construction of a solution.

Pathway 2 Games Development (Design):

- To provide students with the necessary design and development knowledge and skills to equip them for a career in the design and development of computer games;
- To provide students with a specific understanding of the concepts, processes, methods and tools, and their application, in the design and development of computer games;
- To enable students to develop a cultural understanding of computer games and the computer games industry;
- To develop a critical approach to the evaluation of computer games;
- To develop the ability to apply sound design principles and practical skills
- To enable students to acquire good skills in analysis, synthesis and communication;
- To enable students to take responsibility for their own learning as they progress through the programme;
- To assist the student in developing the skills required in adapting to changing technological and organisational developments and learning new skills;
- To provide articulation opportunities to access the programme for students with appropriate prior accredited learning experiences
- To provide education and training which is accredited by the ScreenSkills.
- To provide opportunity to further develop practical, personal and professional course skills in a work-based environment;

Expected Levels of Attainment

- On successful completion of level 1 of study a student should have a basic knowledge and understanding of the application of technical development and design skills applicable to a wide range of computing based systems needs including the development of Computer Games.
- On successful completion of level 2 of study a student should have a sound knowledge and competent application of computer game design and development skills applicable across a range of game genres.
- On successful completion of level 3 of study a student should be able to design and develop computer games across a wide variety of game genres in response to the specification of a perceived industry need, in accordance with fundamental principles and methods, using appropriate techniques and tools.
- On successful completion of level H of study a student should, in addition, be able to critically evaluate alternative game solution approaches and genres and be able to use advanced design techniques in the construction of a solution.

3. INTENDED LEARNING OUTCOMES

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas: [cross refer to the appropriate benchmark statement]

Preamble

This development of this programme has been informed by:

- The International Game Developers Association's Curriculum Framework

- The Sector Skills Council for the Audio Visual Industries Computer Games Industry Skill Set
- The QAA Benchmark Statement of Computing
- ACM Computer Science 2013: Curriculum Guidelines for Undergraduate Programs in Computer Science
- The School of Engineering and Built Environment's research in the areas of *Communications, Interactive and Trustworthy Systems and Visual, Affective and Pervasive Systems*.
- The School of Engineering and Built Environment's Knowledge Transfer and Lifelong Learning programmes
- Glasgow Caledonian University's Strategy for Learning 2015-2020
- Glasgow Caledonian University's Strategy for Learning 2030
- Feedback from Alumni and currently registered students on the 'old' programmes
- Feedback from FE Glasgow Colleges with existing articulation agreements onto our programmes
- The School of Engineering and Built Environment's Learning, Teaching and Assessment Strategy

3A Knowledge and understanding;

- A1 Explain the essential theoretical and practical aspects of computer gaming systems and associated computer technology
- A2 Evaluate a wide range of principles and practical aspects of computer game design
- A3 Evaluate the principles and practical aspects of the incorporation of appropriate media within the design and development of a range of computer games
- A4 Assess the principles and practical aspects of the application environments and development tools related to computer games design and development
- A5 Understand the principles and processes involved in the production of computer games
- A6 Develop an awareness of the requirements, both in attitude and skill, of the computing profession
- A7 Explain the mathematical and physical principles underlying advanced computer games

3B Practice: Applied knowledge, skills and understanding;

- B1 Identify, analyse and solve practical problems
- B2 Plan, conduct and report upon work
- B3 Evaluate alternative design and implementation solutions
- B4 Critically evaluation of work undertaken by themselves and others
- B5 Gather and evaluate research information from a variety of sources

3C Generic cognitive skills;

- C1 Analyse the issues, principles, processes, techniques and tools associated with the construction of computer games.
- C2 Practically apply appropriate and transferable skills for the design and user testing of computer games
- C3 Demonstrate effective use of a variety of software development techniques, tools and environments in the construction and support of computer games.
- C4 Apply theory to practical and realistic career-related tasks
- C5 Demonstrate appropriate use of numeracy skills in the execution of subject related practical tasks
- C6 Utilise appropriate computer literacy skills in undertaking practical tasks
- C7 Demonstrate appropriate communication skills: written, oral and listening

3D Communication, numeracy and ICT skills

- D1 Specialist knowledge and application
- D2 Critical thinking and problem solving
- D3 Critical analysis
- D4 Communication skills, written, oral and listening
- D5 Numeracy
- D6 Effective information retrieval and research skills

- D7 Computer literacy
- D8 Self confidence, self discipline & self reliance (independent working)
- D9 Awareness of strengths and weaknesses
- D10 Creativity, innovation & independent thinking
- D11 Knowledge of international affairs
- D12 Appreciating and desiring the need for continuing professional development
- D13 Reliability, integrity, honesty and ethical awareness
- D14 Entrepreneurial, independence and risk-taking
- D15 Ability to prioritise tasks and time management
- D16 Interpersonal skills, team working and leadership
- D17 Presentation skills
- D18 Commercial awareness

3E Autonomy, accountability and working with others.

Additional Industrial Placement Skills

The programme has an optional one-year credit-rated placement period in related employment which provides the specific opportunity for further development of practical, personal and professional course skills in a work-based environment

Strategy for Learning 2030

The SfL for this programme has been designed to meet the overall aims of the programme as well as the specific learning outcomes expected of students. The teaching approach is student centred, practical and participative and has been designed to move away from the traditional teacher centred paradigm to a more active, student driven, independent model of learning. Students are encouraged to take a broad view of their education and to participate in competitions, engage in external visits, attend lectures by external speakers and participate in employer led events as well as attending scheduled classes, using online resources and undertaking independent study.

A range of delivery methods are used on the programme including: lectures; group-based tutorials and seminars (both tutor and student led); group based practical exercises in digital design studios/labs (supervised and directed); problem based learning scenarios and case studies; directed study; coursework assignments (individual and group-based) and supervised projects (in all programme levels). GCU's SfL is underpinned by a model comprised of ten design principles. This programme embeds these principles in the following ways:

Engaged learning:

- the programme has a project module in each year of study;
- the integrated projects in years 1-3 are group based encouraging team working across disciplines
- a range of effective and accessible forms of academic support, including personal tutors and academic development tutors are available to students on the programme;
- students have been involved in the course development process and will continue to be involved in the development of the programme;
- students are encouraged to broaden their range of skills, knowledge and strengths by participating in external competitions and events and to apply these experiences to their studies
- project modules in each year provide the opportunity for students to engage with open ended problems and projects both individually and in teams;
- students are encouraged to use collaboration tools to aid learning. The tools used include both Web 2.0 collaboration tools such as social media, blogging, wiki and GCULearn and industry standard tools such as Basecamp or Smartsheet;

Personalised:

- learning technology is recognised as being central to implementing the GCU Strategy for Learning. By combining classroom-based approaches with technology-enhanced learning the programme aims to help students develop the independent and lifelong learning skills which are essential for success in the workplace and throughout life. Members of the programme team have high levels of

technical competence and are additionally supported by the school's Learning Technologists which has enabled them to embed blended and online learning across the curriculum. GCULearn is used to provide materials in different formats to engage with different learning styles e.g. video tutorials, ebooks, podcasts;

- several modules make use of social media tools, blogs and wiki;
- a variety of assessment methods are used across the curriculum
- opportunities for personalised learning are included in the curriculum such as open project briefs where students select topics individually whilst still satisfying the learning outcomes in a module. Modules have been written with reference to GCU LEAD's Flexible, Accessible and Inclusive Curriculum and so use a blended-learning approach which is accessible to all students. They incorporate 'real-life' scenarios where possible, make extensive use of problem-based and project-based work, use a variety of individual, group learning, face-to-face and/or virtual methods of delivery and incorporate materials in a variety of formats to cater for different learning styles; Online Managing Diversity course will be made available to students through the GCULearn portal.

Broader/deeper

- integrated project modules provide opportunities for multi- and inter-disciplinary group working;
- the integrated project modules have been designed to develop team building and team working skills, as well as to encourage the use of reflective practices;
- all integrated project modules incorporate peer assessment;
- the importance of timely, high quality and constructive formative feedback in a variety of forms is recognised by the programme team. A number of team members are Caledonian Scholars and are working on projects in this area and modules have been written with respect to the Feedback for Future Learning's 8 Feedback Principles;
- students attend specialist lectures/talks given by industry representatives. These lectures offer students the opportunity to increase their awareness of the broader context of their discipline and interact with industrial speakers.
- students may defer their choice of specialism until the end of first year;
- the programme provides flexible learning by allowing students to transfer between the pathways

Global learning

- exchange and Erasmus opportunities are available to students; Real word problem solving
- The integrated projects in Levels 2 & 3 specify that students are expected to address problems set by external companies or organisations
- Various modules in the programme offer opportunities for problem solving with the setting of real world project briefs by industry partners or real clients or simulated project briefs informed by real world situations;

Entrepreneurship and employability

- students are provided with opportunities to consider how their specialist knowledge and skills can be channelled into new situations and applications e.g. in the Creative Practice module, a self-initiated project is planned and implemented;
- students attend talks by guest speakers such as business start up, funding and enterprise agencies;
- students attend industrial visits and employer led activities such as CV writing workshops, interview technique classes and employability events
- modules offer opportunities for students to self-reflect on their skills and design output and prepare for employability such as the Level 4 Portfolio module which provides interviews with external industry representatives as part of the assessment.

Responsible leadership and professionalism

- reflection activities are embedded within many modules, notably the integrated project modules
- the understanding of standards of professional ethics, behaviours and work activities are embedded within modules at each level of study and specialised knowledge in the professional field is additionally addressed explicitly in the Research Skills and Professional Issues module in year 3
- All students are encouraged to take responsibility and leadership of their assigned roles within the integrated project modules

Real world problem solving

- real world problem solving is embedded within many of the latter modules, notably the Honours Project, Integrated Project 3, Research Skills and Professional Issues and the Portfolio module
- Input from experts in the field and access to current knowledge are directly integrated into Integrated Project 3
- researching a problem and developing and testing potential solutions are key aspects of Research Skills and Professional Issues and the Honour Project
- emphasise of the essence of student ownership of the problem, solution, and learning are fundamental to Research Skills and Professional Issues and the Honour Project

Divergent thinking

- divergent thinking principles are rooted within many modules, notably the Integrated Project modules
- All students are encouraged brain storm, subject map, prototype while pondering solutions within the Integrated Project modules
- setting aside time for thinking and meditation, mind mapping solutions, and creating questions are a critical component of research generation, and are contained within Research Skills and Professional Issues and the Honour Project

Flexible, inclusive, accessible learning

- the programme is structured around GCULearn LMS system, which supports 24/7 access, and the automation and delivery of educational courses for students
- the department is committed to using technology to support blended teaching strategies that combine the benefits of online study with face to face teaching
- the programme continually seeks to manage resource allocations and utilise new learning environments in order to support flexible learning, for example, moving to an online lecture model which will allow students greater control over bespoke learning routines
- in addition to greater learner control and choice regarding the content, sequence, time, place and method of learning, the programme team works with departments across the university to provide access to information on courses and services; access to appropriate learning resources; and flexible assessment processes

4. PROGRAMME STRUCTURES AND REQUIREMENTS, LEVELS, MODULES, CREDITS AND AWARDS

SCQF Level 7		
Module Code	Module Title	Credit
M1I626038	Introduction to Games Programming	20
M1I625665	Introduction to Game Design	20
M1I625703	Mathematics for Computer Games	20
M1I325623	Fundamentals of Computer Systems (10 credits)	10
M1I325668	Integrated Project 1	20
M1W225628	Introduction to 3D Modelling	20
M1I325624	Fundamentals of Network and Cloud Computing (10 credits)	10
Exit Award – Certificate of Higher Education in Games Development		120
SCQF Level 8 (Software) Pathway or shared modules		
Module Code	Module Title	Credit
M2I627241	Design of Playful Experiences (Shared)	20
M2I326738	Programming Structure and Design (Software)	20
M2I622940	Working With Game Engines (Shared)	20

M2I325669	Integrated Project 2 (Shared)	20
M2I625666	Human Computer Interaction (Shared)	20
M2I630322	Unreal Game Development (Software)	20
Exit Award – Diploma of Higher Education in Games Development (Software)		240
SCQF Level 9 (Software) Pathway or shared modules		
Module Code	Module Title	Credit
M3I625712	Game Preproduction Workshop (Shared)	20
M3I626739	Games Programming 1 (Software)	20
M3I622941	Game Artificial Intelligence (Software)	20
M3W225670	Integrated Project 3 (Shared)	20
M3I326557	Research Skills and Professional Issues (Shared)	20
M3I626039	Games Programming 2 (Software)	20
Exit Award – Bachelor of Science in Games Development (Software)		360
SCQF Level 10 (Software) Pathway or shared modules		
Module Code	Module Title	Credit
MHW225671	Honours Project (Shared)	40
MHI626740	Graphics Programming (Software)	20
MHI625661	Network Game Programming (Software)	20
MHG525636	Portfolio (Shared)	20
MHI625659	Games Programming 3 (Software)	20
Exit Award – Bachelor of Science with Honours in Games Development (Software)		480
SCQF Level 8 (Design) Pathway or shared modules		
Module Code	Module Title	Credit
M2I627241	Design of Playful Experiences (Shared)	20
M2I622940	Working With Game Engines (Shared)	20
M2I625647	Games Narrative (Design)	20
M2I325669	Integrated Project 2 (Shared)	20
M2I625666	Human Computer Interaction (Shared)	20
M3I625714	Game Content and Level Design (Design)	20
Exit Award – Diploma of Higher Education in Games Development (Design)		240
SCQF Level 9 (Design) Pathway or shared modules		
Module Code	Module Title	Credit
M3I625712	Game Preproduction Workshop (Shared)	20
M3I625715	User Psychology (Design)	20
M3I626899	Serious Games Design (Design)	20
M3W225670	Integrated Project 3 (Shared)	20
M3I326557	Research Skills and Professional Issues (Shared)	20
M3I625663	Game User Research (Design)	20
Exit Award – Bachelor of Science in Games Development (Design)		360
SCQF Level 10 (Design) Pathway or shared modules		
Module Code	Module Title	Credit
MHW225671	Honours Project (Shared)	40
MHI625652	Games System Design (Design)	20
MHI626982	Experimental Games (Design)	20
MHG525636	Portfolio (Shared)	20
MHW225718	Creative Practice (Design)	20
Exit Award – Bachelor of Science with Honours in Games Development (Design)		480

Industrial Placement Year (Optional) Exit Award.

Students opting to undertake placement do so in the academic session after level 3 studies. Assessment is via the additional 60 SCQF level 3 credit module, M3I323077 Industrial Placement (CCIS). Successful completion of that module gives (Sandwich) in the final exit award obtained by the student.

5. SUPPORT FOR STUDENTS AND THEIR LEARNING

- Induction Programme
- Personal Development Planning (PDP) and Personal Progress Files (PPF) including portfolio development
- Programme and Module Handbooks
- Group Coursework Guidelines
- Project Study Guides
- Year Tutors
- Project Co-ordinators
- Employability and Career Planning programme
- Sir Alex Ferguson Library with access to other local and national library resources
- Student e-mail and programme/module based Virtual Learning Environment facilities
- Departmentally based PC Computer Laboratories equipped with full range of course and supporting software.
- Open access to Departmental and University Computer facilities
- First Year ICT Skills Programme
- Specialist Computer Games Development Laboratories and E-Motion Laboratory
- Specialist Networking Hardware Laboratories
- Honours Project Laboratory
- Supply of specific proprietary course software for home use to provide additional study and work access
- Open access to tutorial staff including the Programme Leader
- Access to Student Services Department which provides assistance and guidance
- School of Computing, Engineering and Built Environment's Learning and Development Centre which provides specific study skills support and guidance
- Web based learning facilities
- Professional and Industry Body Contacts
- Student representatives on the Programme Board
- Student representatives on Senate and its Standing Committees
- Student Staff Consultative Group
- Feedback from partners in Further Education

For Students who undertake the Optional Placement:

- Preparation programme to assist students in obtaining placement.
- Specified staff roles (Placements Tutor and Placements Administrator) to assist with identifying specific placement opportunities and helping students in applying for placements.
- When in placement liaison is conducted between University and Industry based supervisor. Planned reviews and visits of student when in placement.

IT Support

The University IS (Information services) provide a range of student support mechanisms through My Caledonian, student email facilities, open access to a number of University Intranet and Internet connected laboratories, and a Learning Café.

The School also has a number of laboratories with University Intranet and also Internet connectivity to allow access to Managed Learning Environments such as GCU Learn, which supplement and assist module provision and delivery.

Academic Support

Academic support is provided through access to module leaders and tutors. Staff room numbers, email and telephone contact details are provided in the Module Handbooks and can be accessed through a Managed Learning Environment.

In order to provide on-going support for students, academic staff including the Programme Leader, operate a policy of open access for consultation and help through email and suitable managed learning environments. If there is a major concern by an individual student, the student is encouraged in the first instance to contact the Programme Leader to discuss their concerns and to attempt to facilitate an early resolution. Students are also made aware of the support and guidance offered by the Student Services Department and may be referred to Student Services or the School Learning Development Centre as appropriate.

6. CRITERIA FOR ADMISSION

Candidates must be able to satisfy the general admissions requirements of Glasgow Caledonian University

Programme Admission Requirements:

The minimum entrance requirements for entry into the first year of the programme are one of the following:

- SQA passes in 5 subjects of which at least 3 are at Higher Grade
- GCE passes in 5 subjects of which 2 are Advanced level (or equivalent)
- An appropriate program of SQA National Certificate Course units which must include passes in modules which are at least equivalent to SQA/GCE English and Mathematics at Ordinary/ Standard grade at Credit level
- HNC in Computing/IT Applications or Equivalent
- BTEC National Diploma in Computing/IT
- IT Access course or equivalent
- Advanced GNVQ in IT
- Irish Leaving Certificate – 5 subjects passed at H level (at least C grade) or equivalent
- International qualifications which are equivalent to standard entry (in these cases appropriate EOSL qualification is required)
- International applications: An IELTS Score of 6.0 with no element below 5.5 is required.

In all of the above cases, the qualifications must include SCE/GCE pass in English at Standard grade at Credit level (or equivalent) and STEM subject at Higher grade B (or equivalent). Annually the Programme Board also considers the competitive entry requirements based on student demand and allocated places.

Flexible Entry - Credit Transfer and RPL:

Accumulation of credit points from other Courses and from prior experiential learning may allow direct entry into the programme at the appropriate level, subject to satisfying the necessary pre-requisites for completion of the programme.

Articulation to Level 2

The following HNC group award qualifications are likely to be sufficiently specialised to enable articulation directly to level 2, if the applicant also has a total of 15 HN credits:

- HNC Computer Games Design/Development

Given the modular nature of SQA HND awards, these lists for Level 2 and level 3 articulation can only be viewed as indicative and not exhaustive. Thus consideration will be given to named HND awards on the basis of the module profile therein.

Students with an appropriate Computing/IT HND award, however, may be able to articulate to level 2 on the basis of the module profile therein and if their unit credits include the module Mathematics: Calculus and Matrices for Computing.

Articulation to Level 3

The following HND group awards are likely to be sufficiently specialised to enable articulation directly to level 3 of this programme:

- HND Computer Games Design/Development

Students with other HNC Computer Games Design group awards, without sufficient specialisation to enable level 3 articulation, would normally be able to articulate to level 2

Entry with Advanced Standing

Mature and overseas students: specific requirements

Formal entry requirements may be relaxed for mature applicants (21 years of age and older) whose record of educational achievement and relevant experience is deemed to be appropriate. Non-standard applicants will normally be interviewed to assess their suitability for the programme.

Additionally overseas students require to demonstrate an appropriate level of competence in written and spoken English, if their entry qualification was not delivered and assessed in English.

Equal Opportunities

The University will seek at all times equality of opportunity for all applicants and seeks not to discriminate on any grounds irrelevant to the above general principle of admission.

Applicants with a disability

All applicants for admission to the programme who reveal a disability will be invited to a meeting with the Admissions Tutor and/or University Disability Adviser in order that the specific needs of the applicant can be assessed. This is not part of the selection process but students may be advised at this stage if the nature of their disability means that they might be unable to fulfil the academic or professional requirements of the programme. Equally it may not be possible for the University to make reasonable adaptations to enable an applicant to undertake a particular programme. Should this be the case, the University will respond positively and advice on alternative programmes and options will be offered.

Glasgow Caledonian University leads the way in widening access to higher education. As part of the University's mission to promote the common good, we work with schools, children and families in the local community to raise educational aspirations in young people and their families. The Contextualised Admissions Policy aims to build on this work and recognise the different student learner journeys. The policy aims to recognise and acknowledge that not all applicants have an equal opportunity to demonstrate their full academic potential and will take into consideration the context and circumstance in which a student has achieved his/her academic grades. For details please access the policy here: <https://www.gcu.ac.uk/aes/documentsandpolicies/>

7. METHODS FOR EVALUATING AND IMPROVING THE QUALITY AND STANDARDS OF TEACHING AND LEARNING

Mechanisms for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards:

- Annual Programme Monitoring Process
- Annual Module Monitoring Process
- Module Feedback Questionnaire
- External Examiner(s) Reports
- Annual monitoring (required by Professional and/or Statutory Bodies)
- Enhancement-led Internal Subject Review (ELISR)

- Enhancement-led Institutional Review (ELIR)
- The Strategy for Learning and all other relevant University policies
- Thematic audit
- Performance Development Annual Review (PDAR)
- The SFC/QAA Enhancement Themes
- Development events, Enhancement Led Internal Subject Review involving external panel members
- Annual Programme Monitoring Process/ Programme Improvement Plan
- Annual report from Associate Dean Learning, Teaching and Quality (ADLTQ) on Programme monitoring
- Programme Board
- Academic strategy review and development by School Learning, Teaching and Student Experience Forum
- School based quality procedures for moderation of assessments (Exam and Coursework) and Peer Observation of Teaching

Committees with responsibility for monitoring and evaluating quality and standards:

- Student-Staff Consultative Group (SSCG)
- Programme Board (PB)
- School Board
- Assessment Board (AB)
- University Learning and Teaching Sub-Committee (LTSC)
- University Academic Policy and Practice Committee (APPC)
- University Senate

Mechanisms for gaining student feedback on the quality of teaching and their learning experience:

- Student-Staff Consultative Group (SSCG)
- Student representation on Programme Board (PB)
- Student representation on School Board
- Module Feedback Questionnaire
- Open access to members of Programme Team e.g. Module Leaders, Programme Leader, Personal Tutor, Year Tutor
- Placement Reports
- GCU Learn
- NSS

Staff development priorities include:

- Postgraduate Certificate in Academic Practice
- Discipline based Continuous Professional Development (CPD)
- Performance and Development Annual Review (PDAR)
- Peer support for teaching
- Mentoring scheme for new teaching staff
- Conference and seminar attendance and presentation
- Research Excellence Framework (REF) submission
- Membership of Higher Education Academy (HEA)
- Membership of and involvement with Professional Bodies
- Regular Programme Team meetings
- Seminar programme with visiting lecturers
- Conference presentations
- REF submission
- Institutional learning and teaching workshops

8. ASSESSMENT REGULATIONS

Students should expect to complete their programme of study under the Regulations that were in place at the commencement of their studies on that programme, unless proposed changes to University Regulations are advantageous to students.

The Glasgow Caledonian University Assessment Regulations which apply to this programme, dependent on year of entry can be found at:

[GCU Assessment Regulations](#)

9. INDICATORS OF QUALITY AND STANDARDS

Internal Indicators

- Details of approval, development events and Enhancement Led Internal Subject Reviews organised by the School/University
- Annual Programme Monitoring and development of the Programme Improvement Plan
- School Module Management Committee annual report on module performance
- Prizes awarded by the School for outstanding performance

External Indicators

- Professional/Statutory Body accreditation visits and reports
- Quality Assurance Agency subject reviews
- External Assessor Reports

10. INFORMATION ABOUT THE PROGRAMME

Key information about the programme can be found in:

- Definitive Programme Document
- Programme Handbook
- Module Handbook
- University Website <http://www.gcu.ac.uk>
- School Website
- GCULearn
- My Caledonian
- University Prospectus

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning assessment methods of each module can be found in the University Module catalogue which can be accessed from the University website. The accuracy of the information in this document is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

A curriculum map is attached showing how the outcomes are being developed and assessed within the programme. This relates the modules from Section 4 to the outcomes in Section 3.

Curriculum Map for BSc/BSc (Hons) Games Development (Software) or (Design)

PSMAP

The curriculum map links the modules (Section 4) to the Outcomes listed in Section 3

This map provides both a design aid to help academic staff identify where the programme outcomes are being developed and assessed within the course. It also provides a checklist for quality assurance purposes and could be used in approval, accreditation and external examining processes. This also helps students monitor their own learning, and their personal and professional development as the course progresses. The map shows only the main measurable learning outcomes which are assessed. There are additional learning outcomes (e.g. attitudes and behaviour) detailed in the module specifications which are developed but do not lend themselves to direct measurement

Modules			Programme outcomes																																
	Code	Title	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10				
SCQF7	M1I625703	Mathematics for Computer Games	X				X		X	X				X				X	X	X	X		X	X											
	M1I625665	Introduction to Games Design	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X								
	M1I626038	Introduction to Games Programming	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	M1I325623	Fundamentals of Computer Systems	X				X	X		X	X		X	X				X	X	X	X	X	X	X	X		X	X	X	X					
	M1W225628	Introduction to 3D Modelling	X		X	X	X			X	X	X	X	X	X		X	X	X	X	X	X	X		X		X	X	X	X	X	X	X		
	M1I325668	Integrated Project 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X		X	X	X	X	X	X	X		
	M1I325624	Fundamentals of Network and Cloud Computing	X				X	X		X	X		X	X				X	X	X	X	X	X	X	X		X		X	X					
	M2I627241	Design of Playful experiences	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X		X	X	X	X			
SCQF8	M2I625647	Games Narrative	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X	X			
	M2I326738	Programming Structure and Design	X	X	X	X	X	X	X		X				X		X	X	X	X	X	X	X		X	X		X		X					
	M2I622940	Working With Game Engines	X	X		X	X	X		X		X			X	X	X	X		X	X	X	X					X	X	X	X				
	M2I630322	Unreal Game Development	X				X	X		X	X		X	X				X	X	X	X	X	X	X		X			X	X	X	X			
	M2I625666	Human Computer Interaction	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X				X	X	X	X				
	M2I325669	Integrated Project 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X		X	X		X					
	M3I625714	Game Content and Level Design	X	X	X	X	X	X		X	X	X	X		X	X	X	X		X	X	X		X	X	X	X		X	X	X				
	SCQF9	M3I626739	Game Programming 1	X	X	X	X	X	X	X		X				X		X	X	X	X	X		X	X	X	X			X	X				
M3I625715		User Psychology	X	X		X	X	X		X	X		X	X		X		X	X	X	X	X	X						X	X					
M3I626899		Serious Games Design	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X					
M3I625712		Game Preproduction workshop	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X					
M3I625663		Game User Research	X	X		X	X	X		X	X		X	X		X		X	X	X	X	X	X					X	X	X					

SCQF10	M3I326557	Research Skills and Professional Issues						X		X	X	X	X	X				X	X	X	X	X		X	X		X	X	X	X			
	M3I626039	Games Programming 2	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	M3I622941	Game Artificial Intelligence	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
	M3W225670	Integrated Project 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X		X		X	X			
	MHI626982	Experimental Games	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X							X	X			
	MHI626740	Graphics Programming	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X		X		X		X	X	X			
	MHI625661	Network Game Programming	X				X	X		X	X		X	X				X	X	X	X	X	X	X	X	X		X		X	X	X	
	MHW225718	Creative Practice		X			X			X	X	X	X	X		X		X		X	X	X	X	X	X	X		X		X	X	X	
	MHW225671	Honours Project								X	X	X	X	X				X	X	X	X	X	X	X	X	X		X		X	X	X	
	MHI625652	Game System Design	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X		X	X	X		
MHI625659	Games Programming 3		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MHG525636	Portfolio	X	X	X	X	X	X		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	

	Code	Title	D11	D12	D13	D14	D15	D16	D17	D18	
SCQF7	M1I625703	Mathematics for Computer Games					X				
	M1I625665	Introduction to Games Design					X				
	M1I626038	Introduction to Games Programming		X	X		X	X			
	M1I325623	Fundamentals of Computer Systems	X	X	X		X				
	M2I622940	Working With Game Engines					X				
	M1I325668	Integrated Project 1		X	X		X	X	X	X	
	M1I325624	Fundamentals of Network and Cloud Computing		X			X	X			
SCQF8	M2I627241	Design of Playful Experiences		X	X		X	X			
	M2I625647	Games Narrative		X	X		X	X			
	M2I326738	Programming Structure and Design			X		X	X			
	M2I630322	Unreal Game Development		X	X		X	X			
	M2I625666	Human Computer Interaction		X	X		X	X	X	X	
	M2I325669	Integrated Project 2			X		X	X			
	M3I625714	Game Content and Level Design			X		X	X			
SCQF9	M3I626739	Game Programming 1		X	X	X	X	X			
	M3I625715	User Psychology		X	X		X	X			
	M3I626899	Serious Games Design		X			X	X			

	M3I625712	Game Preproduction workshop		X			X	X	X	X	
	M3I625663	Game User Research		X	X		X				
	M3I326557	Research Skills and Professional Issues		X	X	X	X				
	M3I626039	Games Programming 2		X	X		X	X	X	X	
	M3I622941	Game Artificial Intelligence		X	X		X		X	X	
	M3W225670	Integrated Project 3		X	X		X				
SCQF10	MHI626982	Experimental Games		X			X	X			
	MHI626740	Graphics Programming		X			X	X			
	MHI625661	Network Game Programming		X			X	X			
	MHW225718	Creative Practice		X	X		X	X			
	MHW225671	Honours Project		X			X	X			
	MHI625652	Game System Design		X			X	X			
	MHI625659	Games Programming 3		X	X		X	X	X	X	
	MHG525636	Portfolio		X	X		X	X			

ASSESSMENT LOADING MATRIX

SCQF Level 7									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Class Test)	Ex3 (Class Test)
M1I626038	Introduction to Games Programming	A	20	30	70				
M1I625665	Introduction to Game Design	A	20	100					
M1I325623	Fundamentals of Computer Systems (10 credits)	A	10	50	50				
M1I625703	Mathematics for Computer Games (20 credits)	AB	20				60	20	20
M1I325624	Fundamentals of Network and Cloud Computing (10 credits)	B	10	50	50				
M1W225628	Introduction to 3D Modelling	B	20	100					
M1I325668	Integrated Project 1	B	20	100					
EXIT AWARD: Certificate of Higher Education									

SCQF Level 8									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
M2I627241	Design of Playful Experiences	A	20	50	50				
M2I326738	Programming Structure and Design	A	20	60					40
M2I625705	Working With Game Engines	A	20	30			70		
M2I325669	Integrated Project 2	B	20	100					
M2I625666	Human Computer Interaction	B	20	60	40				
M2I225696	Data Structures and Algorithms	B	20	50			50		
EXIT AWARD: Diploma of Higher Education in Games Development (Software)									

SCQF Level 9									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
M3I625712	Game Preproduction Workshop	A	20	100					
M3I626739	Games Programming 1	A	20	100					
M3I622941	Game Artificial Intelligence	A	20	50					50

M3W225670	Integrated Project 3	B	20	100					
M3I326557	Research Skills and Professional Issues	B	20	30	70				
M3I626039	Games Programming 2	B	20	100					
EXIT AWARD: BSc Games Development (Software)									

SCQF Level 10									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
MHW225671	Honours Project	AB	40	100					40
MHI626740	Graphics Programming	A	20	100					
MHI625661	Network Game Programming	A	20	60			40		
MHG525636	Portfolio	B	20	100					
MHI625659	Games Programming 3	B	20	100					
EXIT AWARD: BSc (Hons) Games Development (Software)									

SCQF Level 8									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
M2I627241	Design of Playful Experiences	A	20	70	30				
M2W226031	Working With Game Engines	A	20	30	70				
M2I625647	Games Narrative	A	20						
M2I325669	Integrated Project 2	B	20	100					
M2I625666	Human Computer Interaction	B	20	60	40				
M3I625714	Game Content and Level Design	B	20	100					
EXIT AWARD: Diploma of Higher Education in Games Development (Design)									

SCQF Level 9									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
M3I625712	Game Preproduction Workshop	A	20	100					

M3I625715	User Psychology	A	20	100					
M3I625707	Serious Games Design	A	20	70	30				
M3W225670	Integrated Project 3	B	20	100					
M3I326557	Research Skills and Professional Issues	B	20	30	70				
M3I622933	Usability Research	B	20	100					
EXIT AWARD: BSc Games Development (Design)									

SCQF Level 10									
Module Code	Module Title	Trimester	Credits	Assessment Weighting					
				Cw1	Cw2	Cw3	Exam1 (Exams Office)	Ex2 (Exams Office)	Ex3 (Class Test)
MHW225671	Honours Project	AB	40	100					40
MHI625672	Advanced HCI	A	20	100					
MHW225718	Creative Practice	A	20	30	70				
MHI625652	Games System Design	B	20	50	50				
MHG525636	Portfolio	B	20	100					
EXIT AWARD: BSc (Hons) Games Development (Design)									