F2G1-GDD Master of Design in Games Design and Development

PROGRAMME DETAILS
Programme Code: F2G1-GDD
Department: Computer Science
Main Award: MDES - Master of Design
Full Award Title: Master of Design in Games Design and Development
Level: Postgraduate Taught

LOCATION OF STUDY
Edinburgh Y Scottish Borders N Orkney N
Dubai N Malaysia N Approved Learning Partner N
Independent Distance Learners N Collaborative Learning Partner N Other N

ASSOCIATED AWARDS
Programme Code | Award | Title
--- | --- | ---
F2G1-GDD | MDES | Games Programming
F2G2-GDD | PGDIP | Postgraduate Diploma in Games Design and Development
F2G3-ZZZ | PGCERT | Postgraduate Certificate in Games Design and Development

ACCREDITATION
We will seek accreditation for this MDes in Games Design and Development from BCS, The Chartered Institute of IT when they next visit us in 2020 on their 5-year cycle of visits. Furthermore, we will seek accreditation from TIGA, a non-profit trade association representing the UK's games industry.

LEARNING OUTCOMES – SUBJECT MASTERY
Understanding, Knowledge and Cognitive Skills

- Detailed critical understanding of the main theories, concepts, principles related to the particular domain of computer games design and development including terminology, conventions, standards, methodologies, and processes.
- Critical understanding and take part in discourse framing current practice and debate within contemporary games design and development practice.
- Critical understanding and use of a significant range of techniques, practices, tools and frameworks in computer games development. Including advanced specialised skills, research and investigation techniques, and current practices within this domain.
- Broad knowledge of the main areas of a games design and development domain, application-based knowledge, and professional skills related to this domain.
- Critical understanding and experience in studio design, pre-production, production, playtesting, quality assurance of games.
- Knowledge in entrepreneurial methodology and practice in the domain of games.

Scholarship, Enquiry and Research (Research Informed Learning)

- Develop the ability to research through the design process.
- Extensive, detailed and critical understanding of games design and development obtained through background research into a substantial and challenging game idea by personal scholarship.
- Detailed knowledge, research and understanding related to the development of games as well of the practical skills in exploiting, developing and marketing original and creative game ideas.
F2G1-GDD Master of Design in Games Design and Development

- Specialist and critical knowledge, understanding and skills in the various specialist technologies and platforms in games.
- Apply original research to their own ideas, work and their professional practice.
- Research and critical knowledge of entrepreneurial avenues and methods in the games domain, landscape and industry.

### LEARNING OUTCOMES – PERSONAL ABILITIES

#### Industrial, Commercial and Professional Practice

- Demonstrate a critical awareness of current issues within creative industries in design and development, and make informed judgements about them in the light of relevant professional standards.
- Demonstrate an awareness of professional and research issues in the discipline, and an ability to critique current techniques and practice.
- Formulate and evaluate own practice and position work within the broader context of creative industries.

#### Autonomy, Accountability and Working With Others

- Work autonomously and within teams, as appropriate, in a studio environment demonstrating a capability for both taking and critically reflecting on roles and responsibilities.
- Develop and utilise advanced problem-solving skills and techniques in the shared development of original and creative solutions to general and specialist design and development issues.
- Develop and demonstrate skills and techniques in communication with peers and academic/industrial staff, using a range of appropriate methods to suit different levels of knowledge and expertise within the audience.

#### Communication, Numeracy & Information and Communications Technology

- Develop and demonstrate the ability to communicate and present issues involved in design and development in the creative industries to a literate audience with the appropriate use of modern presentational tools and aids.
- Demonstrate appropriate use of methods of calculation and estimation involved in planning solutions and engineering in complex engineering related systems.
- Develop and demonstrate the ability to use a variety of industry-standard creative tools and middleware applications.

### APPROACHES TO TEACHING AND LEARNING

This programme is offered as a combination of i) structured studio work activities within two campus-based taught courses in design practice and development experience, ii) individually supervised research and practical work, iii) entrepreneurial taught courses, and iv) two traditional elective campus-based, cohort model of study taught MSc level courses.
Semester One compromises of one taught course (30 credits) offering design-led learning in a studio environment for students to develop design and pre-production skills. Students are expected to complete ideation tasks, collaborate in the studio environment, solve design problems, engage with possible users, iteratively critique their designs, and be guided throughout the process and game creation lifecycle with academic supervision. Furthermore, in Semester one students will take an entrepreneurial course, mix with students from other departments to enhance their involvement and interaction with different domains further. Finally, an optional taught course will complement and focus domain technical knowledge and skills. This and the entrepreneurial course will feature traditional lecture-based materials, small group tutorials and a variety of laboratory-based practical study. Students are expected to complete coursework in groups, teams and pairs, as well as individually, and course options offer a range of types of coursework for assessment, from discursive essay-style assignments to code design and generation. In the mandatory and elective courses, team teaching approaches are used to provide additional support and variety, and electronic assistance, in the form of email lists, online forums and bulletin boards are widely used to disseminate information and support student communication and practice.

Semester Two will comprise one additional studio taught work course (30 credits), and this course will concentrate on production and feedback playtesting sessions. This course uses a variety of teaching methods during that time: studio work, lectures, seminars, tutorials, workshops, debates, guest lectures and case study scenarios. The School encourages the teaching and studio work to be as interactive as possible. In a discipline that combines educational and vocational aims, the teaching and learning are often "hands-on" and practical. The linking of theory and practice is critical on this programme, as well as the focus on best practice. Furthermore, this semester will also include an additional entrepreneurial course and one technical elective course to complement the learned skills and student personal development.

Finally, the Masters Project in Games in semester three will consist of student-led learning and research; students will take the initiative and responsibility for themselves to solve problems and complete their project. There is considerable emphasis on practical work researching, designing, producing, playtesting and releasing prototypes and a full computer game. For professional practice, this emphasis on the individual as well as work in a studio environment is crucial. An academic in the area will supervise learning in this final semester.

EDUCATIONAL AIMS OF THE PROGRAMME

The primary education aim is to enable students to rigorously and professionally understand, explore, create, evaluate and release computer games from a creative, theoretical and practical viewpoint with emphasis on innovation, technology and commercial relevance.

Additional educational aims in this programme include:

- Detailed knowledge and critical understanding of the research area of design and development of computer games in computer science.
- Ability to critically research existing theory and practice in the computer games research literature and develop original and creative solutions to development problem.
- Initiate, develop, and deliver thorough, dynamic, and creative computer game and design project from within a collaborative and cross-discipline studio environment, demonstrating advanced skills and critical understanding of fundamental concepts and technologies required.
- Understand, explore and creatively utilise existing and emerging technology to enhance and improve the design process and design outcome.
- Gather relevant and cutting-edge research from a range of sources that are objectively assessed and applied positively within a structured design process leading to innovative insights and solutions.
• Promote an inter-disciplinary collaborative approach and global understanding of critical issues relating to design, technology, management, marketing and innovation within games design and development.

ASSESSMENT POLICIES

This MDes is a full-time programme comprising three successive semesters. The progression and assessment policies will follow guidelines for MScs in the Department of Computer Science. Students registered for the MDes degree need to satisfy specific progression criteria, enabling them to proceed onto the final Masters Project. If they fail to meet these criteria, given below, they will graduate with a Diploma or Certificate, according to the circumstances.

Masters Degree

• Progression to MDes requires credit weighted average >= 50% over the six courses (130 credits) at grades A-D plus a Grade C in both F21GB and F21GC.
• Award of MDes requires credit weighted average >= 50% over the six courses (130 credits) at grades A-D plus at least a Grade C in the Masters Project in Games (60 credits) (F21GD).
• Award of MDes with Distinction requires credit weighted average >= 70% over six courses (130 credits) at the first attempt plus a Grade A in the Masters Project in Games (60 credits) (F21GD).

Postgraduate Diploma
Students who choose not to progress to the Masters or do not meet the progression requirements may be awarded the Postgraduate Diploma.

• Award of PD Diploma requires credit weighted average >= 40% over six courses (130 credits) at grades A-E.
• Award of PG Diploma with Distinction requires credit weighted average >= 70% over six courses (130 credits) at grade A-C.

Postgraduate Certificate
Students who do not meet the requirements for the award of Postgraduate Diploma may be awarded the Postgraduate Certificate.

• Award of PG Certificate requires credit weighted average >= 40% over four courses or equivalent to 60 credits at grades A-E.

PROGRAMME STRUCTURE
Mandatory Courses
### F2G1-GDD Master of Design in Games Design and Development

<table>
<thead>
<tr>
<th>Edinburgh</th>
<th>SBC</th>
<th>Orkney</th>
<th>Dubai</th>
<th>HWUM</th>
<th>IDL</th>
<th>Coll. Partner</th>
<th>ALP</th>
<th>Other</th>
<th>Stage</th>
<th>Semester</th>
<th>Phase</th>
<th>Course Code</th>
<th>Course Title</th>
<th>SCQF Cr</th>
<th>SCQF Lvi</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>F21GB</td>
<td>Games Design Practice and Pre-production Experience</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>H11EN</td>
<td>Entrepreneurship &amp; Creativity</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td>F21GC</td>
<td>Games Production Practice and Playtesting Evaluation</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td>H11EV</td>
<td>Entrepreneurial Venturing</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
<td>F21GD</td>
<td>Masters Project in Games</td>
<td>60</td>
<td>11</td>
</tr>
</tbody>
</table>

### Optional Courses

<table>
<thead>
<tr>
<th>Edinburgh</th>
<th>SBC</th>
<th>Orkney</th>
<th>Dubai</th>
<th>HWUM</th>
<th>IDL</th>
<th>Coll. Partner</th>
<th>ALP</th>
<th>Other</th>
<th>Stage</th>
<th>Semester</th>
<th>Phase</th>
<th>Course Code</th>
<th>Course Title</th>
<th>SCQF Cr</th>
<th>SCQF Lvi</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>F21GA</td>
<td>3D Graphics and Animation</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>F21SC</td>
<td>Industrial Programming</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td>F21AD</td>
<td>Advanced Interaction Design</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td>F21AS</td>
<td>Advanced Software Engineering</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

### COMPOSITION NOTES (PG)

Two mandatory taught design and development courses (60 SCQF level 11 credits), two mandatory enterprise courses (40 SCQF level 11 credits), two optional CS game-related courses (30 SCQF level 11 credits), plus 60 SCQF level 11 credits worth of supervised practical work for the final Masters Project in games. Total 190 SCQF level 11 credits.

<table>
<thead>
<tr>
<th>Mandatory Credits</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional Credits</td>
<td>30</td>
</tr>
<tr>
<td>Elective Credits</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
</tr>
</tbody>
</table>

### AWARDS, CREDITS AND CRITERIA (PG)

<table>
<thead>
<tr>
<th>Awards, Credits and Levels</th>
<th>Overall Credits</th>
<th>Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters Degree</td>
<td>190</td>
<td>190 SCQF credits including a minimum of 150 credit at Level 11</td>
</tr>
<tr>
<td>Postgraduate Diploma</td>
<td>130</td>
<td>130 SCQF credits including a minimum of 90 credit at Level 11</td>
</tr>
<tr>
<td>Postgraduate Certificate</td>
<td>60</td>
<td>60 SCQF credits including a minimum of 40 credit at Level 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Award Requirements</th>
<th>Total Course Passes</th>
<th>Overall Mark</th>
<th>Overall Grade</th>
<th>Basis of Overall Mark/Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master (Distinction)</td>
<td>6+Dissertation</td>
<td>70</td>
<td>A</td>
<td>Credit Weighted Average greater than or equal 70% over 6 courses at grades A-C (at the 1st attempt) plus a Dissertation at grade A.</td>
</tr>
</tbody>
</table>

---

Page | 5 of 6
F2G1-GDD Master of Design in Games Design and Development

<table>
<thead>
<tr>
<th>Master</th>
<th>6+Dissertation</th>
<th>50</th>
<th>C</th>
<th>Credit Weighted Average greater than or equal 50% over 6 courses at grades A-D plus a Dissertation at minimum grade C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma (Distinction)</td>
<td>6</td>
<td>70</td>
<td>A</td>
<td>Credit Weighted Average greater than or equal 70% over 6 courses at grades A-C (at the 1st attempt)</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>40</td>
<td>D</td>
<td>Credit Weighted Average greater than or equal 40% over 6 courses at grades A-E</td>
</tr>
<tr>
<td>Certificate</td>
<td>4</td>
<td>40</td>
<td>D</td>
<td>Credit Weighted Average greater than or equal 40% over 4 courses at grades A-E</td>
</tr>
</tbody>
</table>

**DURATION OF STUDY**

<table>
<thead>
<tr>
<th>IN MONTHS</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Diploma</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Certificate</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

**RE-ASSESSMENT (PG)**

1. A student who has been awarded a Grade E or F in a course may be re-assessed in that course. A student who has been awarded a Grade D in a course may be re-assessed in that course in order to proceed to or be eligible to receive the award of Masters.
2. A student shall be permitted only one re-assessment opportunity in a maximum of three taught courses. The opportunity for re-assessment in four or more taught courses shall be at the discretion of the Progression Board.
3. Any further re-assessment opportunities in a course will require the approval of the Postgraduate Studies Committee.
4. A student may be permitted, at the discretion of the Progression Board, to be re-assessed in the dissertation, project or other supervised research component of the course of study.

**PROGRESSION TO DISSERTATION/PROJECT**

Students may progress to the Masters Project if they have met the progression requirements (taught course credit weighted average of 50% or better, all courses at Grade D or above plus 50% or better in F21GB and F21GC).