

Course Specification

Course Summary Information			
1	Course Title		BSc (Hons) Video Game Development with Foundation Year
2	BCU Course Code	UCAS Code	US0815F 1144
3	Awarding Institution		Birmingham City University
4	Teaching Institution(s) (if different from point 3)		
5	Professional Statutory or Regulatory Body (PSRB) accreditation (if applicable)		

6	Course Description
	<p>The Foundation Year will provide a grounding in game design and programming practice for students to join level 4 of the honours degree.</p> <p>Interactive entertainment and video games development are key sectors for contemporary culture, economic growth and employment, whether that be locally, nationally or globally.</p> <p>This three-year BSc (Hons) Video Game Development course with Foundation Year responds to this growing and innovative sector by developing skilled, team-orientated, reflexive graduate professionals ready to succeed in the sector. On the course you will learn the most important programming languages for game development, as well as industry-standard game development tools such as Unity and Unreal.</p> <p>This course gives you a guaranteed video game development placement in our in-house studio, taking place over the summer term in the second year of the course.</p> <p>What's covered in the course?</p> <p>Developing you as a professional developer</p> <p>The course covers core programming languages and video game development tools, as well as contemporary agile software development techniques to make you a competent and adaptable programmer, capable of finding employment in the sector or preparing you for further academic study.</p> <p>Your first position in the video game industry</p> <p>Building upon your core language and software development skills, in the second year you will be tasked with a specific role within our in-house game development studio over the summer term. This work experience gives you the opportunity to apply the knowledge and professional practices you've learnt on the course in a safe and supportive environment. Typically for these projects you'll be using industry standard game development tools such as Unity and Unreal.</p> <p>The work students produce during these summer placements can act as excellent portfolio pieces, which demonstrate their ability as both a professional game developer and effective team member.</p>

Putting you in control of your final project

Throughout the three years you will be provided with a structured programme of learning, in line with your chosen specialism of video game development. The course culminates with a project you define yourself which uses a specific programming language and technology you have learned on the course, such as JavaScript, C#, C++, Three.js, SFML, Unity and Unreal.

You have the choice of either proposing your own individual project or collaborating with other students to create another video game project for your portfolio.

Best of class facilities and staff

Teaching takes place in a modern production studio based in Birmingham City Centre where you'll be provided with studio space to complete projects and access to the software you'll need for the duration of the course.

You will be taught by staff with significant experience in the video game development industry, having worked with game developers including Psygnosis, Rage Software, Codemasters, FreeStyleGames and EA Games.

Real experience

By the time you graduate you'll have three years of tangible games development studio experience under your belt, ready to launch your dream career as a games developer.

Alternatively, you can choose to apply for one of our one-year Gamer Camp courses, to gain even more in-depth skills, and experience.

7 Course Awards			
7a	Name of Final Award	Level	Credits Awarded
	Bachelor of Science with Honours Video Game Development	6	360
7b Exit Awards and Credits Awarded			
	*Foundation Certificate Video Game Design & Development	3	120
	Certificate of Higher Education Video Game Development	4	120
	Diploma of Higher Education Video Game Development	5	240
	Bachelor of Science Video Game Development	6	300

8 Derogation from the University Regulations	
	Not applicable

9 Delivery Patterns			
Mode(s) of Study	Location	Duration of Study	Code
Full Time	City Centre	3 years	US0815F

10	Entry Requirements
	The admission requirements for this course are stated on the course page of the BCU website at https://www.bcu.ac.uk/ , or may be found by searching for the course entry profile located on the UCAS website.

11	Course Learning Outcomes
1	Knowledge and Understanding
1.1	Explain the core knowledge about game production processes, the relative contributions of programming, art, design & production roles within a production team.
1.2	Understanding Mathematics; Fundamentals of Computation and realisation of computer systems in both hardware and software.
1.3	Apply understanding, skills, knowledge and experience to create social and economic value by building reliable and usable experiences.
1.4	Develop maintainable, extendable, portable and flexible code.
2	Cognitive and Intellectual Skills
2.1	Display Technical and creative skills applicable to the research and development of software.
2.2	Apply analytical and critical skills in the development and appraisal of software.
2.3	Evaluate information and formulate conclusions.
2.4	Deliver software projects using techniques for researching, monitoring, reviewing and directing
3	Practical and Professional Skills
3.1	Reflect on personal practice and modify accordingly.
3.2	Develop intellectual, practical, technical and communication skills appropriate to an informed approach to individual and collaborative practice.
3.3	Manage an independent programme of study and develop Personal Development and Planning (PDP) to chart self-awareness, critical reflection, and action planning.
3.4	Organise, test, and justify ideas and critical positions through practical software development, written and verbal presentation suitable to brief and/or audience.
4	Key Transferable Skills
4.1	Work independently and collaboratively.
4.2	Engage in constructive discussion and debates across a range of ideas, implementation approaches and disciplines to facilitate collaborative development.
4.3	Present motivational and organisational skills, managing time and tasks effectively and professionally.
4.4	Develop presentation skills to a professional standard, able to explain context principles and solutions to a range of audiences.

12	Course Requirements																																																										
<p>Level 3:</p> <p><i>In order to complete this course a student must successfully complete all the following CORE modules in the following order (totalling 120 credits):</i></p> <table border="1"> <thead> <tr> <th>Module Code</th> <th>Module Name</th> <th>Credit Value</th> </tr> </thead> <tbody> <tr> <td>GFA3000</td> <td>Video Game Design Foundations</td> <td>20</td> </tr> <tr> <td>GFA3002</td> <td>Video Game Programming Foundations</td> <td>20</td> </tr> <tr> <td>GFA3001</td> <td>Professional & Academic Skills</td> <td>20</td> </tr> <tr> <td>GFA3003</td> <td>Video Game Research & Prototyping</td> <td>20</td> </tr> <tr> <td>GFA3004</td> <td>Video Game Realisation</td> <td>40</td> </tr> </tbody> </table> <p>Level 4:</p> <p><i>In order to complete this course a student must successfully complete all the following CORE modules (totalling 120 credits):</i></p> <table border="1"> <thead> <tr> <th>Module Code</th> <th>Module Name</th> <th>Credit Value</th> </tr> </thead> <tbody> <tr> <td>MED4141</td> <td>Computer Science & Web Technologies Primer</td> <td>20</td> </tr> <tr> <td>MED4138</td> <td>Object-Oriented Programming</td> <td>40</td> </tr> <tr> <td>MED4140</td> <td>3D Graphics Primer</td> <td>20</td> </tr> <tr> <td>MED4139</td> <td>Theory and Practice using Physics Engines</td> <td>40</td> </tr> </tbody> </table> <p>Level 5:</p> <p><i>In order to complete this course a student must successfully complete all the following CORE modules (totalling 120 credits):</i></p> <table border="1"> <thead> <tr> <th>Module Code</th> <th>Module Name</th> <th>Credit Value</th> </tr> </thead> <tbody> <tr> <td>GFA5008</td> <td>Collaborative Project</td> <td>60</td> </tr> <tr> <td>MED5148</td> <td>High Performance Programming Languages</td> <td>20</td> </tr> <tr> <td>MED5149</td> <td>Application of High-Performance Libraries</td> <td>40</td> </tr> </tbody> </table> <p>Level 6:</p> <p><i>In order to complete this course a student must successfully complete all the following CORE modules (totalling 120 credits):</i></p> <table border="1"> <thead> <tr> <th>Module Code</th> <th>Module Name</th> <th>Credit Value</th> </tr> </thead> <tbody> <tr> <td>MED6166</td> <td>Development using High Performance Engines</td> <td>20</td> </tr> <tr> <td>MED6200</td> <td>Professional Practice</td> <td>40</td> </tr> <tr> <td>ADM6006</td> <td>Major Project</td> <td>60</td> </tr> </tbody> </table>			Module Code	Module Name	Credit Value	GFA3000	Video Game Design Foundations	20	GFA3002	Video Game Programming Foundations	20	GFA3001	Professional & Academic Skills	20	GFA3003	Video Game Research & Prototyping	20	GFA3004	Video Game Realisation	40	Module Code	Module Name	Credit Value	MED4141	Computer Science & Web Technologies Primer	20	MED4138	Object-Oriented Programming	40	MED4140	3D Graphics Primer	20	MED4139	Theory and Practice using Physics Engines	40	Module Code	Module Name	Credit Value	GFA5008	Collaborative Project	60	MED5148	High Performance Programming Languages	20	MED5149	Application of High-Performance Libraries	40	Module Code	Module Name	Credit Value	MED6166	Development using High Performance Engines	20	MED6200	Professional Practice	40	ADM6006	Major Project	60
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12b Structure Diagram

Please note list of optional modules is indicative only. Students' choice will not be guaranteed for optional modules but a fair and transparent process will be adopted and shared with students.

Level 3

SEMESTER ONE	SEMESTER TWO
Video Game Design Foundations (20 Credits) Video Game Programming Foundations (20 Credits) Professional & Academic Skills (20 Credits)	Video Game Research & Prototyping (20 Credits) Video Game Realisation (40 Credits)

Level 4, 5 and 6

Year One Semester One	Year One Semester Three	Year One Semester Two
Computer Science & Web Technologies Primer (20 Credits)	Collaborative Project (60 Credits)	Development using High Performance Engines (20 Credits)
Object – Oriented Programming with C# (40 Credits)		Professional Practice (40 Credits)
Year One Semester Two	Year Two Semester One	Year One Semester Three
3D Graphics Primer (20 Credits)	High Performance Programming Languages (20 Credits)	Final Major Project (60 Credits)
Theory and Practice using Physics Engines (40 Credits)	Application of High Performance Libraries (40 Credits)	
Level 4	Level 5	Level 6

13 Overall Student Workload and Balance of Assessment

Overall student *workload* consists of class contact hours, independent learning and assessment activity, with each credit taken equating to a total study time of around 10 hours. While actual contact hours may depend on the optional modules selected, the following information gives an indication of how much time students will need to allocate to different activities at each level of the course.

- *Scheduled Learning* includes lectures, practical classes and workshops, contact time specified in timetable
- *Directed Learning* includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning
- *Private Study* includes preparation for exams

The *balance of assessment* by mode of assessment (e.g. coursework, exam and in-person) depends to some extent on the optional modules chosen by students. The approximate percentage of the course assessed by coursework, exam and in-person is shown below.

Level 3

Workload

% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	480
Directed Learning	480
Private Study	240
Total Hours	1200

Level 4

Workload

% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	360
Directed Learning	600
Private Study	240
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	70%
Exam	
In-Person	30%

Level 5

Workload

% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	280
Directed Learning	680
Private Study	240
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	83%
Exam	
In-Person	17%

Level 6

Workload

% time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	280
Directed Learning	680
Private Study	240
Total Hours	1200

Balance of Assessment

Assessment Mode	Percentage
Coursework	100%
Exam	
In-Person	