

## Course Specification

Course Summary Information			
1	<b>Course Title</b>		BSc (Hons) Video Game Development
2	<b>BCU Course Code</b>	<b>UCAS Code</b>	US0815   1573
3	<b>Awarding Institution</b>		Birmingham City University
4	<b>Teaching Institution(s)</b> (if different from point 3)		
5	<b>Professional Statutory or Regulatory Body (PSRB) accreditation</b> (if applicable)		

6	Course Description
	<p>Do you want to turn your passion for video games into a rewarding career? Apply for one of the only video games degree courses of its kind in Europe, designed to produce 'work ready' graduates for the industry. With access to Playstation 4 developer kits and real games briefs, this two-year fast track degree can prepare you to work for companies such as Sega and Sony.</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>Our BSc (Hons) Video Game Development course 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 accelerated two-year course gives you a guaranteed video game development placement in our in-house studio, taking place over the summer term of the course. The work-place simulation approach of our department (NTI Birmingham) has been championed by the influential 2009 Livingstone, Hope Next Gen Report which cited us as a national best practice example for developing new talent.</p> <p><b>What's covered in the course?</b></p> <p><b>Developing you as a professional developer</b></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>The course starts with introducing you to computer programming by teaching you the most valuable language for developing interaction online, JavaScript. You'll then be introduced to C# and object-oriented software and will be given a range of interactive products to develop using both languages. As you move into your second year of study, you'll concentrate on the most powerful and efficient language for game development, such as C++</p> <p><b>Your first position in the video game industry</b></p> <p>Building upon your core language and software development skills, in the first 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</p>

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.

These summer projects have in the past been mentored and supported by external partners including Red Bee Media, FreeStyleGames and Codemasters. The work students produce during these summer placements can act as excellent portfolio pieces, which demonstrate their ability as both a professional artist and effective team member.

### **Putting you in control of your final project**

Throughout the two 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, a whole year before most students, you'll have two 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.

<b>7</b>	<b>Course Awards</b>		
<b>7a</b>	<b>Name of Final Award</b>	<b>Level</b>	<b>Credits Awarded</b>
	Bachelor of Science with Honours Video Game Development	6	360
<b>7b</b>	<b>Exit Awards and Credits Awarded</b>		
	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

<b>8</b>	<b>Derogation from the University Regulations</b>
	Not applicable

<b>9</b>	<b>Delivery Patterns</b>		
<b>Mode(s) of Study</b>	<b>Location</b>	<b>Duration of Study</b>	<b>Code</b>
Full Time	City Centre	2 years	US0815

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

<b>11</b>	<b>Course Learning Outcomes</b>
<b>1</b>	<b>Knowledge and Understanding</b>
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.
<b>2</b>	<b>Cognitive and Intellectual Skills</b>
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
<b>3</b>	<b>Practical and Professional Skills</b>
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.
<b>4</b>	<b>Key Transferable Skills</b>
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.

<b>12</b>	<b>Course Requirements</b>																																							
<b>12a</b>	<p><b>Level 4:</b></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 &amp; 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><b>Level 5:</b></p> <p><i>In order to complete this course a student must successfully complete all the following CORE modules (totalling 100 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>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> <tr> <td>GFA5008</td> <td>Collaborative Project</td> <td>60</td> </tr> </tbody> </table> <p><b>Level 6:</b></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	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	MED5148	High Performance Programming Languages	20	MED5149	Application of High Performance Libraries	40	GFA5008	Collaborative Project	60	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 as modules will only run if selected by 15 or more students. Students' choice will not be guaranteed for optional modules but a fair and transparent process will be adopted and shared with students.

Dev Only = Video Game Development Specific core modules

All = Shared interdisciplinary modules

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 4

##### Workload

##### % time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	360
Directed Learning	600
Private Study	240
<b>Total Hours</b>	<b>1200</b>

##### Balance of Assessment

Assessment Mode	Percentage
Coursework	63%
Exam	
In-Person	27%

#### Level 5

##### Workload

##### % time spent in timetabled teaching and learning activity

Activity	Number of Hours
Scheduled Learning	280
Directed Learning	680
Private Study	240
<b>Total Hours</b>	<b>1200</b>

##### Balance of Assessment

Assessment Mode	Percentage
Coursework	88%
Exam	
In-Person	12%

**Level 6****Workload****% time spent in timetabled teaching and learning activity**

<b>Activity</b>	<b>Number of Hours</b>
Scheduled Learning	500
Directed Learning	460
Private Study	240
<b>Total Hours</b>	<b>1200</b>

**Balance of Assessment**

<b>Assessment Mode</b>	<b>Percentage</b>
Coursework	100%
Exam	
In-Person	