

## COMPUTING FOR GAMES AT FALMOUTH

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WELCOME TO BSC COMPUTING FOR GAMES AT FALMOUTH.

### Your offer

Please remember that if you have been made a conditional offer to study at Falmouth, your place is subject to meeting those conditions. Conditional means that we are waiting to receive your results, or some more information, before your place is finalised. You can see any conditions in [UCAS Track](#). If you have any questions, please contact Louise Hearle on 01326 213784 or [louise.hearle@falmouth.ac.uk](mailto:louise.hearle@falmouth.ac.uk)

### First week of term

Your first day of attendance will be **Monday 14 September 2015**. Please report for your welcome talk at **9.30am** in the **Games Studio Teaching Room** in the **Media Centre** on the **Penryn Campus**.

Between the games course, the University and the Students Union we have a full and exciting first week planned out for you all, which we will explain at this meeting. Induction week will include some fun activities, as well as some more important introductions to your new career as a Falmouth student.

### MyTimetable

<https://mytimetable.falmouth.ac.uk/> available from 1 September 2015

This is the link to MyTimetable, your online academic calendar which shows all scheduled learning activities and your course timetable. It will be available from 1 September 2015, however, timetables can be subject to change. To keep up to date, we recommend that you export the feed to your chosen device (mobile, tablet, laptop or desktop). An induction will be offered on the use of MyTimetable during freshers' week. Students will have access to their individual student timetables, where appropriate, once they have completed their online enrolment and IT induction.

### Before you arrive

We'll be using a range of programming languages and software on the course. But to begin getting a feel for game development, you should start experimenting with Unity and C# programming. The software is a free download from [www.unity3d.com](http://www.unity3d.com), and a good set of programming tutorials is available at <http://catlikecoding.com/unity/tutorials/>

You should also familiarise yourself with C++ programming. Windows users should download Visual Studio Community for free from <https://www.visualstudio.com>; Mac

users should download Xcode for free from the App Store. Once you have the software, start working through the tutorials on <http://www.learncpp.com>

Computing for games is a heavily mathematical subject. Those of you who have done A Level maths may find it useful to look over your notes again, particularly on geometry and vectors. (Don't worry if you haven't done A Level maths — we'll be covering everything you need to know on the course itself.) You may also want to watch some of the 'Math for Game Development' videos at <https://www.youtube.com/playlist?list=PLW3Zl3wyJwWOpdhYedID-yCB7WQoHf-My>

If you want to use your own desktop computer or laptop on the course, any machine capable of running current games at medium or high settings should be sufficient. Most of the software we will be using is available for both Windows and Mac OS X, so feel free to use whichever you prefer. Please see the following guidance from our studio technician and some example computer specifications.

### **Computer buying advice**

Firstly, a couple of caveats:

- It's possible to develop games on most computer systems that have been made in the last ten years and furthermore high spec development PCs will be provided in the University's digital games studio, so there is no requirement for you to bring new or expensive computer systems with you when you join the course. However, we anticipate that some students will want to purchase a new computer to see them through university and may like some advice on this matter from a game developer's perspective
- Please note that although every effort has been made to ensure the described computer systems are appropriately configured, these systems have not been tested by any member of the team and the University can accept no liability for the consequences of any actions taken on the basis of the information provided. If you are unsure about any aspect of your purchase then please contact the retailer. Now, on to the hardware:

### **Graphics Card**

Arguably, the most important hardware consideration for a game development system is the graphics card, especially if you intend to work with detailed 3D graphics that are rendered in real-time. For the example computers listed below we have noted corresponding 'average G3D benchmark' scores as taken from [videocardbenchmark.net](http://videocardbenchmark.net) at the time of writing. This website considers 'high end video cards' to have a score of 824 or above.

### **Laptop or Desktop?**

Laptops obviously have the advantage of being portable. In other regards you will typically get a higher spec system when spending an equivalent amount on a desktop instead of a laptop. Desktops also tend to have better air-flow and cooling so less stress is put on the components when running for long periods which can in turn help to improve the life span of the system.

### **Hard Drive**

Depending on whether your preference is for fast load times or extra storage space (digital downloads, films, music, etc.) you might want to consider either a SSD hard drive (speed) or a larger 'regular' hard drive (storage). Some developers like to use an internal SSD hard drive for system speed and also have a larger external/portable hard drive for storing or transferring other documents.

### **Display Size**

When working with game development tools you will often be running multiple programs which each have numerous smaller views and panels so you will quickly realise the benefit of having a lot of 'screen estate' ie the more pixels the better. With laptops this can represent a trade-off between portability and weight vs usable display area. Whether you use a laptop or a desktop it's certainly worth considering a full HD display (ie 1920 x 1080 resolution) and perhaps a secondary monitor as well.

In the following list we've tried to cover a range of options and budgets, but the list is by no means exhaustive; we advise that you shop around a little and pick something that you're comfortable with.

### **Example Computers**

#### **Basic spec gaming PC:**

Orion I3 450 PC - <http://www.pcspecialist.co.uk/view/Orion-i3-450-pc/>

Configured with the following add-ons:

- Graphics Card: 2GB AMD Radeon R7 250
- Monitor: ASUS VE228TR 21.5"
- Keyboard: PCS S300 USB Keyboard
- Mouse: PCS S300 USB Mouse

Videocard Benchmark: 1412

**Total Cost: £569**

#### **High spec gaming PC:**

Vortex 1250 Gaming PC - <http://www.pcspecialist.co.uk/view/Vortex-1250-gaming-pc/>

Configured with the following add-ons:

- Monitor 1: IIYAMA E2273HDS 22"
- Monitor 2: IIYAMA E2273HDS 22"
- Keyboard & Mouse: CM Storm Devastator Keyboard and Mouse

(NB this graphics card has 1 DVI, 1 mHDMI & 3 mDP outputs; so be sure to purchase appropriate cables for connecting two monitors – check with a PC Specialist first if you buy this system.)

Videocard Benchmark: 8635

**Total Cost: £1485**

**Basic spec gaming laptop:**

Lenovo Z50 (15.6", full HD, Intel i7, 8GB Ram, 1TB SSHD, Nvidia GT840M)

<http://www.amazon.co.uk/Lenovo-15-6-inch-Full-HD-i7-4510U-Bluetooth/dp/B00LLE6S8M>

(NB if you compare prices at different retailers, be aware that there are different versions of the Lenovo Z50 laptop – be sure to select one with an appropriate graphics card such as the Nvidia GT840M above.)

Videocard Benchmark: 839

**Total Cost: £600**

**High spec gaming laptop:**

Asus G750JS Gaming Laptop (Full HD, Intel i7, 12GB Ram, 256GB SSD + 750Gb HDD, Nvidia GTX870M)

<http://www.ebuyer.com/620646-asus-g750js-gaming-laptop-g750js-t4069h>

Videocard Benchmark: 2318

**Total Cost: £1150**

One of your lecturers on the course will be Dr Ed Powley, an indie game developer and game AI researcher. If you have any questions about the content of the course or the preparatory work mentioned above, email him at [edward.powley@falmouth.ac.uk](mailto:edward.powley@falmouth.ac.uk)

Finally, if you've not done so yet, please feel free to add me on Facebook ([facebook.com/falmouthgames](https://facebook.com/falmouthgames)) and I can then add you to the course's Facebook group where we can all start getting to know each other.

You'll be emailed further details of the course and other important information prior to the start date. If you will be away, please ask someone to check your emails regularly and reply on your behalf.

I look forward to seeing you soon. Please do email me with any other questions or queries at [douglas.brown@falmouth.ac.uk](mailto:douglas.brown@falmouth.ac.uk)

Yours sincerely

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