

Computer Science A Level

This course provides you with an opportunity to study for and gain an academic qualification in the field of Computer Science. In addition to learning about computer science topics and programming concepts, this course also utilises industry standard tools, such as Visual Studio and C#, to enable you to gain firm foundations for either further study or employment.

- ▶ 80% of the work is assessed through external examinations taken at the end of the second year.
- ▶ 20% is assessed through coursework which commences in the Summer term in the first year and is usually submitted during April of the second year.

The following tasks are to help get you organised, set-up and ready to start learning Computer Science.

Task 1 – Folders and Dividers

- Get organised by obtaining two lever arch files along with 10-part dividers to organise your work. You **don't** have to carry these to and from every lesson. You may find it convenient to carry a smaller ring binder to and from college and then you can transfer your notes into the relevant folders on a regular basis.
- Take and print (black and white is fine) a photo of these files and dividers to prove you are prepared. It is essential that you keep yourself organised.

Task 2 – Install Visual Studio Community

- Go to <https://visualstudio.microsoft.com/vs/community/> and download and install Visual Studio Community.
- After enrolment (once you have a college username and password) you can go to <https://aka.ms/devtoolsforteaching> and sign up. Signing up for Azure Dev Tools for Teaching gives you free access to all sorts of Microsoft products and services. *Note: username@hereford.ac.uk is the format of your college email address.*
- Open Visual Studio Community and then take a screenshot and print it (black and white is fine) and bring it in to your first lesson to prove that it is installed on your computer.

Task 3 – Futures in Comp Sci

- Watch these videos:
 - Choose Computer Science - <http://tinyurl.com/yca48czv>
 - Computer Science education - <http://tinyurl.com/qbsq7px>
- Write a short report (no longer than a page of A4) describing why you want to study Computer Science.
- Bring a printout of this work to submit in your first lesson.

Task 4 – Please complete the questionnaire on the next page and hand in during your first lesson.

Previous Programming Experience Questionnaire Name: _____

You are not expected to have programmed before however it is useful to know what experience (if any) you do have. Please answer all questions you are able to.

1. In which languages have you programmed previously?

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2. For each of the following programming concepts rate your level of experience/expertise in your chosen language.

Concept	Not familiar with it	Some experience	Good at it
Input from keyboard and Output to screen.			
Branching (If..Else or Case statements).			
Iteration – loops. Repeating sections of code several times (e.g. For, While and Repeat).			
Using in-built functions (e.g. maths functions).			
Writing your own functions and procedures (subroutines).			
Using parameters (passing values to functions or procedures).			
Manipulating strings (joining, splitting and searching in one string for another).			
Using Arrays or Lists to store and manipulate collections of values.			
Reading and writing text files.			
Working with Records and Fields (possibly with databases).			
Drawing and graphics.			
Animation.			
Writing classes.			

3. In what contexts have you written programs?

Context	Tick all that apply
Exercise or project at school	
For own interest	
Software in use by others	
Other:	

4. Briefly describe the most complex program you've written.

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