Computer Science Summer Work

The purpose of this work is to enable you to start your life at UCB6 in the best way possible. In preparation for your study of Computer science there is some foundational knowledge that will be important for you to know. Please complete the following tasks. You will be required to show evidence of your learning in September.

Task 1: Input / Output / Storage

List all the input, output, and storage devices that you use in one week. For each device label the process that happens in each scenario. For example, "*When using my laptop, I use a mouse and keyboard to INPUT information into the word document. When I click save the computer stores the file onto its storage device. I can then OUTPUT this by pressing print*".

Watch the following videos on IOS and make notes.

- https://tinyurl.com/UCB6-CSVideo

Answer the following questions:

- https://tinyurl.com/UCB6-CSQ

Task 2: Python programming

https://www.hackerrank.com/domains/python.

Please complete 10 tasks as a minimum expectation. I would suggest that you filter by easy. You will need to sign up.

If you get stuck please complete this course: Python for Beginners - Online Course - Future Learn

Wider Reading

This list is not exhaustive and is just a small portion of encouraged reading.

- BBC Click - http://www.bbc.co.uk/programmes/n13xtmd5
- MT News - http://news.mit.edu/topic/computers
- Phys.org - https://phys.org/technology-news/computer-sciences/
- Wikibooks - OCR A-Level Computing H446

Useful Websites

This list of websites will come in handy throughout your next two years and beyond – it is worth saving them for your own support.

- Craig'n'Dave - YouTube
- OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com)
- Higher Computing Science - BBC Bitesize
- Practice Computer Science Fundamentals | Brilliant
- Program Arcade Games With Python And Pygame
- Dashboard | HackerRank
- UCB6 - Y1 CS | Quizlet
- Python Exercises, Practice, Challenges – PYnative
- 20 extremely useful single-line Python codes | by Python Data Development | Medium

Final notes

Students say that they wish they started revising their notes sooner. It is important to make sure that you are consolidating your notes and ideas after every lesson. Ensure that you are utilising the time given in centre to secure your knowledge or come and find me if you are stuck.

Programming, particularly in python is not only important for Unit 2 but will make up most of your project work (worth 20%). Programming is also useful in your future, regardless of whether you are going into Computer Science next!

Be prepared to learn – this means having accessed the canvas page, completed your homework, and come to lesson on time with all your equipment.

Respond appropriately to any feedback given. You will constantly be receiving feedback so make sure that you are acting upon so that you can succeed.

Read around the subject. The more knowledge of news, technology, and the world that you have the more you will be able to apply learnt computing information.

Lastly, enjoy it. Computer Science isn't just for now, it's for ever! So, enjoy it, don't be afraid to get things wrong and keep at it!