Year 11 Preparation for Study at Loreto College

SUBJECT

Computer Science

QUALIFICATION

A Level

PREPARATION TASKS

The A Level builds on the content covered in the OCR GCSE and even though you don't need to have taken the GCSE it is a good idea to go through the GCSE topics to prepare, in particular the topics shown below:

You can find video tutorials on these topics at these links:

2.1 Algorithms

2.2 Programming Techniques

2.4 Computational Logic

2.6 Data Representation

RESEARCH

The programming language that we use is Visual Basic, there are lots of tutorials on you tube and the software is free to download:

How to install Visual Studio 2019 - will show you how to download and install the IDE - Visual Studio.

There a multiple tutorial on how to program with Visual Basic. One of the better ones is from new Boston, they are a bit old but still usable - **New Boston Visual Basic tutorials**

VB.net kindle books for Visual Basic:
Start-to-Finish Visual Basic

Learn Visual Basic: 2019 Edition

Teach & Learn Microsoft Visual Basic with 26 Hands-on Projects

Visual Basic.NET All Versions

RECOMMENDED READING

- OCR AS and A Level Computer Science by P M Heathcote
- Essential algorithms for A Level Computer Science by D Hillyard and C Sargent
- Tackling A Level Projects in Computer Science OCR H446 by Ceredig Cattanach-Chell

Additional Extended Subject Reading:
- Computational Fairy Tales by Jeremy Kubica.
- Artificial Intelligence: A Ladybird Expert Book by Michael Wooldridge.
- Computer Science: An Overview by J. Glenn Brookshear.
- The Pattern on the Stone: The Simple Ideas That Make Computers Work by Daniel Hillis.
- Algorithmic Puzzles by Anany Levitin and Maria Levitin. ISBN: 978-0199740444

RECOMMENDED WEBSITES

- **CS4FN (Computer Science for Fun)**
- **Teach-ict.com**
- **BBC Click**
- **Blown to Bits Blog**

Logic Puzzles Websites:
- **Logic Puzzles by Puzzle Baron**
- **Brainden.com**
- **Maths Is Fun**

This research work is really useful to do, as it will help you to explore your options for college study. Please be aware that agreed courses will be finalised at enrolment after students have been awarded their GCSE results.