

Digital T-Level Transition Booklet

“Failure is simply the opportunity to begin again, this time more intelligently” - *Henry Ford*



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Welcome to T-Level @ SJBC.

What does the T-Level Cover?

The content is split into a core component and the occupational specialism, which is:

- Software Development

The core component provides a broad understanding of the digital industry and covers the following topics:

- Business Context
- Culture
- Data
- Digital Analysis
- Digital Environments
- Diversity and Inclusion
- Learning
- Legislation
- Security
- Testing
- Tools

The core component will be assessed by two exams and an employer set project. Your occupational specialism will allow you to develop the relevant skills in preparation for your career in the digital sector. The occupational specialism is assessed by a project that is created in conjunction with employers. The content covers the following topics:

Digital Production, Design and Development

- Analysing a problem to define requirements and acceptance criteria aligned to user needs
- Designing, implementing, and testing software
- Changing, maintaining and supporting software
- Creating solutions in a social and collaborative environment
- Discovering, evaluating, and applying reliable sources of knowledge
- Applying ethical principles and managing risks in line with legal and regulatory requirements when developing software

As part of this Technical Qualification, you will also enhance your broader skills in literacy and numeracy, which will be valuable in supporting progression in other areas. In addition, you will develop transferable technical and practical skills in communication (working with colleagues, customers, and clients), research and project work, providing you with an opportunity to demonstrate your reflective practice by suggesting alternative approaches to a problem.

How Can I Prepare?

To prepare for this course we would like you to undertake some virtual wrk experience. This is completely free and will help put what your learning into context.

- Go to: <https://www.theforage.com/virtual-internships>
- Select Software Engineering as the Career and choose the experience below or something similar if it isn't available.



The image shows a promotional banner for a virtual experience program on the Forage platform. The main heading is "Cognizant Ready, Set, Agile!". Below it, the text says "Get ready to Agile! Gain valuable knowledge about our agile methodology in our Virtual Experience Program." There is a prominent button that says "Go to the Virtual Experience Program now →". Below the button, it states "This Virtual Experience Program is free" and "Learn More". At the bottom, there are three icons with text: a star icon for "This Virtual Experience Program is free for students", a clock icon for "This program is self-paced. It takes 5-6 hours to complete this Virtual Experience Program", and a briefcase icon for "Get practical skills and experience from Cognizant". The background features a racing car with various sponsor logos like Cognizant, Peroni, and others.

We would also like you to have a basic level knowledge of Python Programming at least. This can be developed by following these tutorials:



The image shows a YouTube playlist interface. The title is "GCSE Programming: Python Tutorials and Challenges" by MrBrownCS. It indicates there are 20 videos, 27,786 views, and it was last updated on Mar 23, 2021. There are "Play all" and "Shuffle" buttons. Below the buttons, it says "A set of videos which introduce the programming language Python which are the most suited to GCSE level." The video thumbnail shows the text "Python #1" and "What is it? How do I install it?".

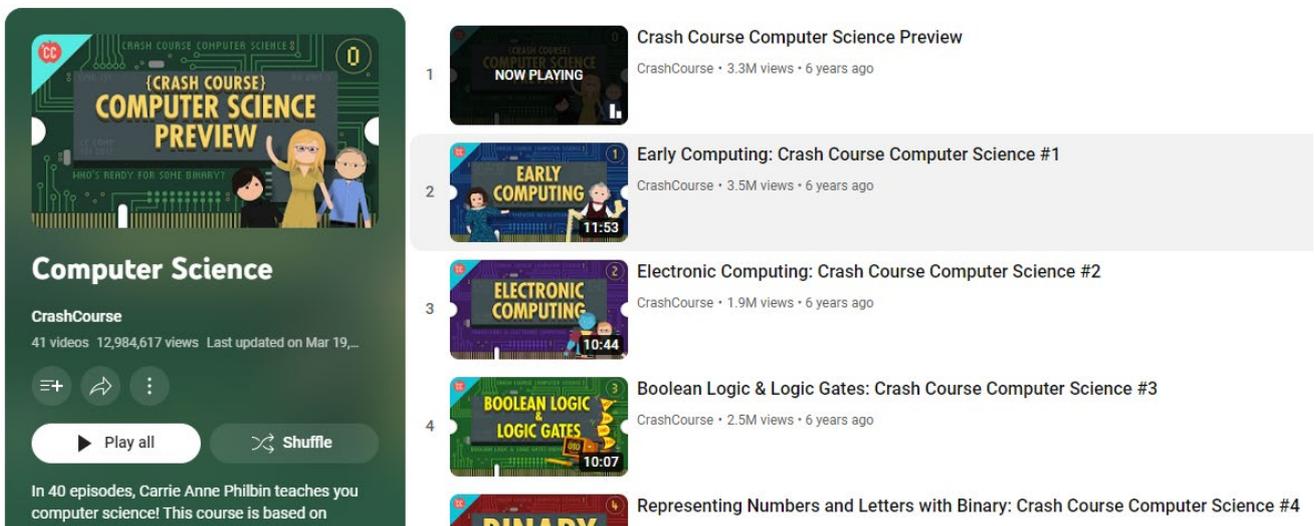
- 1 **Python #1**
Overview and Setup (Desktop and Web Apps)
MrBrownCS • 7.6K views • 3 years ago
12:38
- 2 **Python #2**
Arithmetic Operations
MrBrownCS • 4.9K views • 3 years ago
8:43
- 3 **Python #3**
Variables
MrBrownCS • 3.6K views • 3 years ago
7:39
- 4 **Python #4**
Data Types
MrBrownCS • 2.9K views • 3 years ago
9:53
- 5 **Python #5**
Printing, Comments, and Casting
MrBrownCS • 2.2K views • 3 years ago

Course Textbook: <https://amzn.eu/d/iMsB14R>

Essential Revision Guide: <https://amzn.eu/d/7oFH12s>

Essential Summer Watching:

Crash Course Computer Science: <https://youtube.com/playlist?list=PL8dPuuaLjXtNIUrzyH5r6jN9uIlgZBpdo>



The image shows a screenshot of a YouTube playlist titled "Computer Science" by the channel "CrashCourse". The playlist has 41 videos, 12,984,617 views, and was last updated on March 19, 2019. The main video thumbnail shows the title "(CRASH COURSE) COMPUTER SCIENCE PREVIEW" and the text "WHO'S READY FOR SOME BINARY?". Below the main video are four video thumbnails from the playlist:

1. Crash Course Computer Science Preview (3.3M views, 6 years ago)
2. Early Computing: Crash Course Computer Science #1 (3.5M views, 6 years ago)
3. Electronic Computing: Crash Course Computer Science #2 (1.9M views, 6 years ago)
4. Boolean Logic & Logic Gates: Crash Course Computer Science #3 (2.5M views, 6 years ago)

The fifth video thumbnail, "Representing Numbers and Letters with Binary: Crash Course Computer Science #4", is partially visible at the bottom.