Subject

Programming Diploma (Applications/Software Developer)

Syllabus

OCR Level 3 Cambridge Technicals (Application Developer strand)

What will I learn?

This course will focus heavily on developing learners’ technical abilities as a computer programmer/software engineer. The course is split into ten discrete units that will be heavily focussed on building skills and experience in computer programming using a variety of languages and frameworks, including professional development frameworks such as .NET/WPF/XAML and proprietary database authoring software using MSSQL. Students will also work in the XAMARIN framework to build mobile applications as well as developing higher level skills in Object Oriented Programming (OOP). Students will also develop significant experience in systems analysis and design along with effective project management strategies and skills. In their theoretical units students will also develop advanced knowledge of computational systems.

What topics will we cover? How will my learning be assessed?

Learners will cover eleven units over the two years of the course, delivered through a small number of project based scenarios. Three of these units will be externally assessed and will focus on the Fundamentals of Computer Science, and Global Information, and Cyber Security. The other eight units will be internally assessed and focus mostly on building practical skills as a software engineer. Unit options include; Website Development; Mobile Applications Development; Software Engineering for Business; Project Management; and Product/Software Development. Each of these units will allow the learner to respond to a brief in line with common working practices in the technology industry. This course will also offer students the opportunity to engage directly with external companies and employers throughout completion of some units and additional masterclasses.

How will this subject prepare you for your next steps?

This course will equip learners with the necessary practical skills and experience of professional standard programming to progress onto a degree level apprenticeship in software engineering with large multinational organisations such as Barclays, JP Morgan, Unilever, and GCHQ. Students completing this course successfully will have developed the required knowledge and skills to progress onto a degree study programme in technical disciplines such as software engineering and applications development.

Contribution to UTC/Studio Aims

The Programming Diploma is the course for anyone wanting to develop their practical skills as a software engineer. This leading vocational course develops students knowledge and skills through high level practical assignments aimed at leading each student into a career in software development. This course has an excellent record of students progressing onto Degree level apprenticeships working for some large multi-national organisations. The saying goes that students are being educated for jobs that don’t yet exist, so what better way to prepare for the jobs of tomorrow than learning how to practically solve problems and build the innovative technology systems that will be integral to the next generation of work.

Careers/Job ideas

* [Application analyst](https://www.prospects.ac.uk/job-profiles/application-analyst)
* [Applications developer](https://www.prospects.ac.uk/job-profiles/application-analyst)
* [Cyber security analyst](https://www.prospects.ac.uk/job-profiles/cyber-security-analyst)
* [Data analyst](https://www.prospects.ac.uk/job-profiles/data-analyst)
* [Database administrator](https://www.prospects.ac.uk/job-profiles/database-administrator)
* [Forensic computer analyst](https://www.prospects.ac.uk/job-profiles/forensic-computer-analyst)
* [Game designer](https://www.prospects.ac.uk/job-profiles/game-designer)
* [Games developer](https://www.prospects.ac.uk/job-profiles/game-developer)
* [Information systems manager](https://www.prospects.ac.uk/job-profiles/information-systems-manager)
* [IT consultant](https://www.prospects.ac.uk/job-profiles/it-consultant)
* [Software engineer](https://www.prospects.ac.uk/job-profiles/software-engineer)
* [Systems analyst](https://www.prospects.ac.uk/job-profiles/systems-analyst)
* [UX designer](https://www.prospects.ac.uk/job-profiles/ux-designer)
* [Web designer](https://www.prospects.ac.uk/job-profiles/web-designer)
* [Web developer](https://www.prospects.ac.uk/job-profiles/web-developer)
* [IT sales professional](https://www.prospects.ac.uk/job-profiles/it-sales-professional)
* [IT trainer](https://www.prospects.ac.uk/job-profiles/it-trainer)
* [Nanotechnologist](https://www.prospects.ac.uk/job-profiles/nanotechnologist)
* [Network engineer](https://www.prospects.ac.uk/job-profiles/network-engineer)
* [Supply chain manager](https://www.prospects.ac.uk/job-profiles/supply-chain-manager)
* [Telecommunications researcher](https://www.prospects.ac.uk/job-profiles/telecommunications-researcher)