

Year 12 Induction Day ICT

Application Development



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RESPECT

AMBITION

DETERMINATION

OCR Level 3 Alternative Academic Qualification Cambridge Advanced National in Computing: Application Development (Extended Certificate)

For this qualification, students must complete five units:

- Two mandatory externally assessed units
- One mandatory NEA unit
- Two optional NEA units

Unit no	Unit title	Unit ref no (URN)	Guided learning hours (GLH)	Assessment method	Certificate	Extended Certificate
F160	Fundamentals of application development	M/651/0812	75	E	M	M
F161	Developing application software	F/651/0818	70	E	-	M
F162	Designing and communicating UX/UI solutions	T/651/0823	75	N	M	M
F163	Game Development	D/651/0826	70	N	-	O
F164	Website Development	J/651/0829	70	N	-	O
F165	Immersive technology solution development	M/651/0830	70	N	-	O
F166	Software development	Y/651/0833	70	N	-	O

	Area of comparison	Approach used in these Level 3 Cambridge Advanced Nationals qualifications	Approach used in the Level 3 Cambridge Technicals qualification model	Reasons for the change
1	The size of the qualifications	<p>Qualifications are available in two sizes</p> <ul style="list-style-type: none"> • 150 GLH • 360 GLH <p>The 150 GLH qualification includes nested units from the 360 GLH qualification.</p>	<p>Qualifications are typically available in the following sizes:</p> <ul style="list-style-type: none"> • 180 GLH • 360 GLH • 540 GLH • 720 GLH • 1080 GLH 	<p>For this subject, the Department for Education allows:</p> <ul style="list-style-type: none"> • a maximum size of 360 GLH for these qualifications. • a maximum of two qualification sizes.
2	Number and duration of external assessments	<p>150 GLH qualification:</p> <ul style="list-style-type: none"> • One externally assessed unit • Exam is 1 hour 15 minutes <p>360 GLH qualification:</p> <ul style="list-style-type: none"> • Two externally assessed units • Exams are 1 hour 15 minutes 	<p>There are no exams in the 2012 qualifications.</p> <p>In the 2016 suite, there is a minimum requirement of 30% external assessment.</p>	<p>It is an Ofqual requirement to have 40% external assessment in these qualifications.</p> <p>The exam design is intended to aid accessibility and encourage student engagement while easing the exam burden for students and timetabling.</p>
3	Format of the exam	Each exam is available in January and June and is paper-based.	Each exam is available in January and June and is mainly paper-based.	It is an Ofqual requirement to have two assessment opportunities per assessment.

- F160: Fundamentals of application development

This unit is assessed by an exam.

In this unit you will learn about the about the different stages that developers go through to produce a working software application, how developers scope application requirements, and the design features which make applications intuitive for users. Topics include:

- Topic Area 1 Types of software used in application design
- Topic Area 2 Software development models
- Topic Area 3 Planning application development projects
- Topic Area 4 Application design scoping
- Topic Area 5 Human computer interface and interaction
- Topic Area 6 Job roles and skills

- F161: Developing application software

This unit is assessed by an exam.

In this unit you will learn about implementation methodology and the areas that need to be considered when applications are being developed for different platforms. You will also learn about how data moves in applications and beyond, and how to make sure applications are safe to use and the data they hold is secure. You will also learn how developers deploy finished applications to users, how they're installed on devices, and maintained in the future.

Topics include:

- Topic Area 1 Application software considerations
- Topic Area 2 Data and flow in application software
- Topic Area 3 API and protocols
- Topic Area 4 Application software security
- Topic Area 5 Operational considerations
- Topic Area 6 Legal considerations

- F162: Designing and communicating UX /UI solutions

This unit is assessed by an assignment.

In this unit you will learn the principles of UX/UI design and what makes an interface easy to use. You will learn tools and techniques to plan UX/UI solutions and how to design high-fidelity prototypes of UX/UI solutions. You will also learn how to communicate effectively with clients.

Topics include:

- Topic Area 1 Principles of UX and UI design
- Topic Area 2 Plan UX/UI solutions
- Topic Area 3 Design UX/UI solutions
- Topic Area 4 Communicate UX/UI solutions
- Topic Area 5 Review and improve UX/UI solutions

- F163: Game development

This unit is assessed by an assignment.

In this unit you will learn how types and genres of digital games and their characteristics affect game design. You will then learn how to plan, design, create, and test game prototypes.

Topics include:

- Topic Area 1 Game design
- Topic Area 2 Plan and design high-fidelity game prototypes
- Topic Area 3 Create high-fidelity game prototypes
- Topic Area 4 Test high-fidelity game prototypes
- Topic Area 5 Review and improve high-fidelity game prototypes

- F164: Website development

This unit is assessed by an assignment.

In this unit you will learn about website principles and the components of web pages. You will then learn how to plan, design, create, and test website prototypes that can be viewed on a range of devices. Topics include:

- Topic Area 1 Fundamentals of website development
- Topic Area 2 Plan and design high-fidelity website prototypes
- Topic Area 3 Create high-fidelity website prototypes
- Topic Area 4 Test high-fidelity website prototypes
- Topic Area 5 Review and improve the effectiveness of high-fidelity website prototypes

F160 - Questions

- The application will be a bespoke application What is a bespoke application?
- When planning the ProgressWalk application, success criteria were defined. Explain why success criteria are important.
- At the start of development, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis is completed.

Outline two advantages of using SWOT analysis.

- Explain one disadvantage of using SWOT analysis.

F161 - Questions

- The website hosting the maths application will be protected by a firewall. Explain how a firewall reduces the threat of a DDoS on a website hosting an application.
- What is erroneous test data?
- Discuss whether the developers should complete technical testing on the stand-alone maths application. In your answer you must write about:
 - The advantages to the developers of completing technical testing
 - The disadvantages to the developers of completing technical testing
 - Whether you would recommend that the developers complete technical testing and your reasons.

Blooket Time

