



Go to [www.ccea.org.uk/ef](http://www.ccea.org.uk/ef) to download the most up-to-date version of the GCE Software Systems Development specification.



## Supporting You

We will be delivering a programme of support over the next three years with a focus on the applied nature of the qualification. We will also be listening to your feedback and suggestions for support so that we can make informed decisions to meet future needs.

In the summer and autumn terms this year (2013) we will be:

- holding support workshops focused on specific areas of the specification and the scheme of assessment (we will also post you out an invitation in advance of each event);
- providing a scheme of work; and
- providing fact sheets.

Beyond this you can expect:

- a student guide;
- more fact sheets/case studies;
- additional support workshops;
- information on industry/business links;
- online video tutorials.

We are also available to provide customised centre visits to meet individual support needs. To arrange a centre visit please contact us using the information opposite.

## Contacts

If you have a query or require advice or guidance, please contact:

Subject Officer with overall responsibility for this specification

Michael McAuley  
(028) 9026 1200 ext 2342  
[mmcauley@ccea.org.uk](mailto:mmcauley@ccea.org.uk)

Specification Support Officer

Nuala Braniff  
(028) 9026 1200 ext 2292  
[nbraniff@ccea.org.uk](mailto:nbraniff@ccea.org.uk)

## Getting Started

Whether you already teach an existing CCEA GCE specification, teach a similar specification with another awarding body, or are considering offering applied specifications for the first time, getting started couldn't be easier:

- Visit [www.ccea.org.uk/ef](http://www.ccea.org.uk/ef) to view the specification.
- Attend the support event for your subject.
- Contact your Specification Support Officer if you have any queries.
- Look out for your subject microsite coming soon.

Follow CCEA on:

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# SPECIFICATION SNAPSHOT FOR CCEA'S NEW GCE SOFTWARE SYSTEMS DEVELOPMENT

For first teaching from September 2013

For first award of AS Level in summer 2014

For first award of A Level in summer 2015

**NEW APPLIED  
SPECIFICATION**

# A snapshot of CCEA's new GCE Software Systems Development

Heads of Department or teachers of ICT and **Computer Science** may be interested in this new applied specification.

Recent media and government communications have in the sense highlighted the importance of developing skills that are required to work within the IT industry.

This new qualification is designed to allow students to develop the appropriate knowledge, understanding and skills. It includes the essential skills of programming and user testing which are required to work in the fast growing IT sector within Northern Ireland.

## Specification Summary

This new applied GCE in Software Systems Development is a qualification in which students develop knowledge, understanding and skills through practical demonstration and/or in a context related to employability. It aims to develop software skills which will prepare students for work in today's software industry, as well as to enhance students' understanding of systems approaches.

## Benefits to Students

The specification provides a sound basis for progression to further study and a range of interesting careers. It has been designed to help students:

- **develop** subject knowledge, understanding and skills that will prepare them for work in today's software industry;
- **demonstrate** their understanding and application of key concepts through challenging internal and external assessments;
- **apply** their skills to relevant work-related scenarios; and
- **research**, develop and present their findings in a variety of formats.

## Content and Assessment

Content	Content Summary	Assessment	Weightings	Availability
<b>AS 1:</b> Introduction to Object Oriented Development	<ul style="list-style-type: none"> <li>• Software types</li> <li>• Defining data</li> <li>• Program control structures</li> <li>• Working with objects</li> <li>• Data structures</li> <li>• Exception handling</li> <li>• Managing input/output</li> <li>• Testing an object oriented application</li> </ul>	External written examination: 2 hours  Short and extended questions Stimulus response and data response questions based on the principles of Object Oriented Development	50% of AS  25% of A Level	Every Summer (beginning in 2014)
<b>AS 2:</b> Event Driven Programming	<ul style="list-style-type: none"> <li>• Defining Graphical User Interface (GUI) objects</li> <li>• Understanding events</li> <li>• Using multiple forms</li> <li>• Designing an event driven application</li> <li>• Linking an object application to simple files</li> <li>• Testing an event driven application</li> <li>• Evaluating an event driven application</li> </ul>	Internal assessment  Portfolio showing evidence of designing, implementing, testing and evaluating an event driven application	50% of AS  25% of A Level	Every Summer (beginning in 2014)
<b>A2 1:</b> Systems Approaches and Database Concepts	<ul style="list-style-type: none"> <li>• Reasons for systems development</li> <li>• Systems methodologies</li> <li>• Managing projects</li> <li>• Testing</li> <li>• Database concepts</li> <li>• Entity Relationship (ER) models</li> <li>• Normalisation</li> <li>• Structured Query Language (SQL)</li> </ul>	External written examination: 2 hours  Short and extended questions relating to current systems approaches and database concepts. These questions are based on a pre-release case study published in June	25% of A Level	Every Summer (beginning in 2015)
<b>A2 2:</b> Implementing Solutions	<ul style="list-style-type: none"> <li>• Applying project management techniques to the development process</li> <li>• Selecting a systems approach to the solution of a business problem</li> <li>• Defining and documenting user requirements</li> <li>• Documenting the design of the solution and testing the design</li> <li>• Developing and implementing a desktop solution using an RDMS through an event driven programming environment</li> <li>• Testing the solution</li> <li>• Evaluating the solution</li> </ul>	Internal assessment  Portfolio showing evidence of the analysis, design and implementation of a software solution to a specified problem in a pre-release case study and task, published in June	25% of A Level	Every Summer (beginning in 2015)

As with all GCEs the guided learning hours for this specification are:  **180 hours** for the Advanced Subsidiary Award, and **360 hours** for the Advanced Level Award

## Entitlement Framework

The Entitlement Framework will offer more choice and flexibility for your students aged 14 and above. It will give them access to a wider range of learning opportunities suited to their needs, abilities and interests. We have expanded our portfolio of GCSE, GCE and QCF Level 1 and 2 qualifications to help centres meet the requirements of the Entitlement Framework. [Go to www.ccea.org.uk/ef](http://www.ccea.org.uk/ef) to view our range of new applied specifications.

Applied qualifications allow the learner to develop knowledge, understanding and skills through practical demonstration and/or within a context related to employability. (See DE Circular Number 2011/26 December 2011.)

We consulted widely to ensure that our new applied qualifications:

- are stimulating and rewarding for students;
- provide progression pathways into higher education and the world of work;
- develop the skills that employers need; and
- are relevant to our changing society, economy and environment.

During development and quality assurance of our new applied specifications, we consulted with a range of stakeholders including the Department of Employment and Learning, Department of Enterprise and Investment, employers, employer representatives such as Invest Northern Ireland, higher education, post-primary schools, sector skills bodies, subject associations, teacher training groups and universities.

Employers reviewed the specifications and agreed that they meet students' needs, as the content is up to date and relevant. They also felt the specifications provide opportunities for students to:

- **improve** their skills, be creative and demonstrate independent learning; and
- **realise** and develop skills relating to real-life work contexts through the learning and assessment methodologies.

A representative of **Allstate NI** says:

*'Future non-ICT graduates applying to Allstate NI would be much more attractive to the company if they had studied CCEA's Software Systems Development course. This course is a smart choice, particularly for those students who want to keep their options open and make themselves more employable in NI.'*