

GCE AS & A LEVEL
Student Guide
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

software
systems
development



Student Guide: Software Systems Development

Our GCE in Software Systems Development is an applied qualification in which you develop knowledge, understanding and skills in the development of software applications through practical application in a context related to this area of employment. The ability to write computer programs in languages that are used widely in the industry is one of the most valuable skills to have in the world today. Knowing languages such as Java and C# allows you to programme and develop applications on a range of platforms such as desktops and mobiles. Wouldn't it be great to have the skills to become part of this growing industry?

Q. Why study Software Systems Development?

This specification will encourage you to:

- develop a genuine interest in software systems development with a focus on programming;
- develop your understanding of systems approaches and modelling techniques to support software development;
- develop skills that will prepare you for work in today's software industry;
- develop a software project following the software development process;
- apply your skills to relevant work-related scenarios;
- work with others in group settings;
- research, develop and present your findings in a variety of formats;
- develop a robust academic basis for third level education; and
- demonstrate your understanding and application of key concepts through assessments.

Q. What will I study?

There are two units at AS and a further two units at A2:

Unit	Areas of Study	Unit	Areas of Study
AS 1: Introduction to Object Oriented Development	In this unit you will develop a thorough understanding of object oriented systems. You will learn about: <ul style="list-style-type: none"> • Software • Defining Data • Program Control Structures • Objects • Data Structures • Exception Handling • Managing Input/Output • Testing an Object Oriented Application 	AS 2: Internal Assessment Event Driven Programming	In this unit you will learn how to develop and implement object oriented technologies in an event driven environment such as creating an application with an appropriate user interface. You will learn about: <ul style="list-style-type: none"> • Defining Graphical User Interface (GUI) Objects • Understanding Events • Using Multiple Forms • Designing an Event Driven Application • Linking an Object Application to Simple Files • Testing an Event Driven Application • Evaluating an Event Driven Application

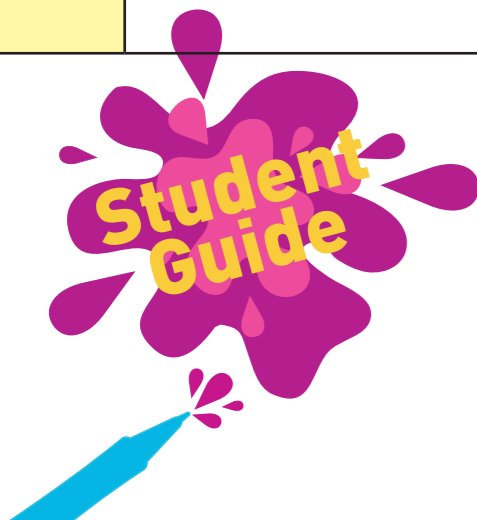
Unit	Areas of Study	Unit	Areas of Study
A2 1: Systems Approaches and Database Concepts	This unit will provide you with a thorough understanding of the reasons for systems development. You will also be introduced to database concepts, enabling you to understand relational database systems. You will learn about: <ul style="list-style-type: none"> • Reasons for Systems Development • Systems Methodologies • Managing Projects • Testing • Database Concepts • Entity Relationship (ER) Models • Normalisation • Structured Query Language (SQL) 	A2 2: Internal Assessment Implementing Solutions	In this unit you will learn to design and build a solution to a given problem using an RDMS through an event driven programming environment. You will learn about: <ul style="list-style-type: none"> • Applying Project Management Techniques to the Development Process • Selecting a Systems Approach to the Solution of a Business Problem • Defining and Documenting User Requirements • Documenting the Design of the Solution and Testing the Design • Developing and Implementing a Desktop Solution Using an RDMS through an Event Driven Programming Environment • Testing the Solution • Evaluating the Solution

Q. How will I be assessed?

Unit	Assessment	Weightings	Availability
AS 1: Introduction to Object Oriented Development	External written examination 2 hours The exam will have short and extended questions on stimulus response and data response.	50% of AS 25% of A Level	Every Summer (beginning in 2014)
AS 2: Event Driven Programming	Internal Assessment You will produce an event driven application and a portfolio of evidence.	25% of A Level 50% of AS	Every Summer (beginning in 2014)
A2 1: Systems Approaches and Database Concepts	External written examination 2 hours The exam will have short and extended questions based on a pre-release case study..	25% of A Level	Every Summer (beginning in 2015)
A2 2: Implementing Solutions	Internal Assessment You will design, implement and document a software solution to a given problem.	25% of A Level	Every Summer (beginning in 2015)

Q. What can I do with a qualification in Software Systems Development?

This GCE course provides you with a solid foundation to progress to higher education or a foothold in the IT industry.



software systems development

How can I find out more?

You can contact teachers at your school or college or your careers advisor.

You can also visit UCAS (www.ucas.com) or CAO (www.cao.ie) for details on entry requirements for university courses.

To view the full specification and the full range of support material available for GCE Software Systems Development, please visit the micro-site (www.ccea.org.uk/software_systems)

