

What is Information and Communication Technology?

ICT is one of the most dynamic aspects of modern life. Its effects can be seen both in business, where it is now regarded as an essential tool, and in the home, where it provides us with a gateway to a plethora of information services. In ICT A level you will learn about the concepts that lie behind ICT and their effects on people and organisations as well as gaining practical experience in the use of ICT for problem-solving.

What sort of student does it suit and what will you get out of the course?

GCSE ICT or Information Studies is helpful but not essential. It is necessary, however, to have an active interest in computers and their application to business and home situations. Students will need to have a computer with Microsoft Access (2000 or later version), and will need to have acquired some experience in using a computer for basic tasks, eg. word-processing. The written papers test the ability to memorise and apply factual knowledge, some of which is technical in nature, and to show the ability to think clearly. ICT fits extremely well with any combination of subjects in either the sciences or the arts and offers skills that are regarded as absolutely essential by most of today's employers. It is an excellent preparation for university courses in management or business studies.

AS - Syllabus number AQA 5521

Unit 1: Information: Nature, Role and Context; 30% of total AS mark; 15% of total A Level mark; 1 hr 30 min; Short answer and structured questions. The unit examines key concepts, security, communications systems and legislation. Understanding of the capabilities, limitations and social impact of IT is also assessed.

Unit 2: Information: Management and Manipulation; 30% of total AS mark; 15% of total A Level mark; 1 hr 30 min; Short answer and structured questions. Building on the concepts in Unit 1, this unit introduces databases, hardware and software, disaster planning, networks and interfaces.

Unit 3: Coursework: The Use of Generic Application Software for Task Solution; 40% of total AS mark; 20% of total A Level mark. Students produce a solution for a real-world problem using generic software (Microsoft Access). Students develop advanced skills and an organised approach to problem-solving.

MPW approach to AS study

Units 1 and 2 are taught together, with the coursework unit 3 taught in the ICT laboratories. The dynamic nature of IT means that students need to read widely and keep up to date with IT related news. Monthly revision tests help the students remember topics once they have been covered, while written homework is set in order to reinforce the topics covered in the classroom.

Reading list

<i>Author</i>	<i>Title</i>	<i>Publisher</i>
Mott and Leeming	Information and Communication Technology AS level	Hodder & Stoughton
Doyle	Understanding Information and Communication Technology for AS level	Nelson Thornes
Wilson	ICT Coursework for AS Level	Hodder & Stoughton

Key Skills Covered at AS level

Communication



Information Technology



Application of Number



Problem Solving



Working with Others



Improving own Learning and Performance



A2 specification number AQA 6521

Unit 4: Information Systems within Organisations; 15% of total A Level mark; 2 hours; Short answer, structured and essay questions. Extends the concepts from Unit 1 and places them in the context of organisations (examples include banks, colleges and businesses). The unit covers such aspects as information flow within organisations, management and legal issues, support and the role of IT professionals in industry.

Unit 5: Information: Policy, Strategy and Systems; 15% of total A Level mark; 2 hours; Short answer, structured and essay questions. Covers policy and strategy issues such as the needs of different users, future proofing and upgrading, evaluation of software, database management systems (DBMS), network infrastructure, human-computer interaction and the protocols that support the World Wide Web.

Unit 6: Coursework: Use of Information Systems for Problem-Solving; 20% of total A Level mark. The unit consists of a project in which students identify and research a substantial real-world problem with a real end-user. Applying skills developed during the course, students make use of advanced skills and develop a cyclic (re-useable) system. This applies concepts learned in the course such as data flow between software packages, transaction logging and archiving.

MPW approach to A2 study

Units 4 and 5 are taught separately from Unit 6, with the coursework Unit 6 taught in the ICT laboratories. Units 4 and 5 are covered in parallel, with monthly revision tests to keep the students' knowledge up to date. Concepts are applied practically as the students develop their solution for Unit 6, starting with a thorough look at the principles behind the right approach to solving a problem of wider scope than that covered during the AS Units. Coverage of the theory units (4 and 5) is further reinforced with written work set as homework along with project work. The third term sees a thorough revision plan to prepare students for the final papers.

Reading list

<i>Author</i>	<i>Title</i>	<i>Publisher</i>
Mott and Leeming	Information and Communication Technology For A2	Hodder & Stoughton
Doyle	Understanding Information and Communication Technology	Nelson Thornes
Wilson	ICT Coursework for A2 Level	Hodder & Stoughton

For full syllabus details, consult the exam board's website at <http://www.aqa.org.uk>

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Key Skills covered at A2 Level

Communication



Information Technology



Application of Number



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