Introduction

‘Managing ICT projects’ has been part of every ICT qualification for as long as there have been qualifications. Usually these skills are tested as part of another discipline such as some database coursework. A problem with this approach is that the same skills were often tested in many units. Most practical ICT courses deliver units on databases, spreadsheets and multimedia, each requiring students to follow some form of system life cycle in the production of their coursework. In this qualification Edexcel has taken these criteria out of the specialist units and created a project management unit. The thinking behind this is that students will be able to concentrate on demonstrating their application skills in the specialist units, and their project management skills can be developed to a greater depth by demonstrating them separately, and only once.

Students nevertheless will still be expected to visit certain areas of the project management cycle in their specialist units (e.g. functional specification). Because of this we suggest that this unit be studied in conjunction with one of the A2 optional units (Units 10, 11 and 12) and that students use their optional unit project to provide the evidence for this unit.

Structure of the unit

The title of the unit is ‘Managing ICT projects’ and for its assessment the student has to provide evidence of a successfully managed ICT project, in the form of an eportfolio. The unit is internally assessed and externally moderated under the criteria shown in the marking grids on pages 131 to 135 of the Edexcel Advanced GCE in Applied ICT Specification.
Unit 8 is laid out so as to guide the student through the process of managing a project and producing the required evidence. Unit 8.1 introduces the unit by looking at a number of projects (both ICT and otherwise) and asks the student to consider what made them a success and/or what made them fail. The objective is to help students appreciate what they need to do to ensure that their project is a success, by learning from other people’s mistakes.

Unit 8.2 will guide students in their choice of project and introduce the people who could be involved in it. It will culminate in the production of the project proposal and guide them through the process of gaining approval to go ahead. Students are encouraged to develop communication skills.

Unit 8.3 will take the student through the process of running a project. The student will learn about the project and system life cycles and see how they combine in the running of an ICT project. Unit 8.2 will culminate in the production of a document required as evidence in their eportfolio. In this case the document is the ‘Definition of scope’, in which the objectives of the project are laid out, along with criteria which decide whether, or not, the project has been a success.

Unit 8.4 will concentrate on the project roadmap. Students will be guided through the process of breaking down their project into tasks and assigning times to them. They will be shown two methods of displaying the project in diagrammatical form: the Gantt chart and the PERT chart. The important aspects of development and testing will be covered.

Unit 8.5 introduces the student to project management software. It covers the setting of general and specific working times and periods when no development can take place. It goes on to cover the entry of tasks and the linking of dependent tasks. During Unit 8.5 the student is encouraged to start to build a project plan for their project.

Unit 8.6 covers the assigning of resources, both human and otherwise, to tasks and how this is achieved within project management software. It also shows students how to assign specific working times to resources. The concepts of resource levelling and baselining are also covered. By the end the student should have an initial project plan which could be presented to their client.

Unit 8.7 covers the running and management of the project. Possibly more importantly, it shows how the agendas and minutes of various meetings can be used to provide evidence of a successfully run project. Unit 8.7 discusses the different types of meetings that students will have to organise or attend during the project and stresses the importance of the end-of-project review.

In Unit 8.8, collecting and presenting the evidence for assessment is covered. A structure for the eportfolio is suggested and guidance as to what should be included is given. The marks for each section are provided and advice on how to achieve these marks is also supplied.
Unit delivery

Unit 8 has been written to cover the syllabus in a logical order, guiding the student through all aspects of the project management process. Many of the activities are based on the student’s own choice of project. Following these activities in order will provide the student with much of the evidence required for the eportfolio. It is suggested that this unit should be studied in conjunction with the optional unit the student has decided to study, since much of the evidence required is common to both units. An outline scheme of learning has been provided (see ‘Resources’ zipped file).

Learning approach

The unit is written to take into account the examination board’s aim of ‘learning through doing’: much of the learning will take place during the activities. The unit should be studied in the order given and activities should be tackled using students’ own projects. The activities will provide the student with much of the evidence they require.

Resources

Students will require access to:

- the students’ book and/or the ActiveBook
- a word processor (e.g. Microsoft Word)
- presentation software (e.g. Microsoft PowerPoint)
- the application software required for the optional unit
- browser software (Microsoft Internet Explorer, Mozilla Firefox, Safari, Netscape etc.)
- project management software (e.g. Microsoft Project).

Although it is possible to undertake the project without specialist project management software, the authors suggest that this is not advisable. The examples in this book are shown in Microsoft Project, but the authors make no specific recommendation that this product should be used rather than another equivalent product. The minimum requirements of whatever software is used would be that it can produce graphical plans (Gantt or PERT charts), assign resources, and undertake automatic levelling and baselining.