

**EDEXCEL LEVEL 5 BTEC
HIGHER NATIONAL DIPLOMA (HND) IN COMPUTING (GENERAL)**

SECOND YEAR UNITS

UNIT 1: COMPUTER PLATFORMS

This unit is aimed at IT practitioners who need sufficient knowledge of computer architecture to make rational and commercial decisions on the selection and specification of systems. Learners will learn how to evaluate operating systems in order to create their own operating environment. Many IT practitioners communicate with specialist technical support staff during the specification and planning of systems implementation.

This unit aims to give learners the confidence to communicate with technical and non-technical specialists to justify their recommendations.

Summary of learning outcomes

To achieve this unit a learner must:

1. Investigate computer systems
2. Investigate operating systems
3. Design a computer system
4. Test your computer system.

UNIT 8: INFORMATION SYSTEMS PROJECT

This unit will form a central part in the development of the learner's ability to link and integrate the knowledge and skills acquired during the programme to produce a practical solution to a realistic problem from the use of applications software. Learners will also appreciate how to use the tools and techniques of the software to produce a range of documentation to include written, graphical and oral formats of delivery.

This unit will provide learners with a good overview of a range of applications software, its function and uses within an IT context. Learners will be expected to design, use and test applications software to meet a specified user requirement.

This is a major piece of work that should demonstrate the performance expected at a Higher National level. The problem should be developed within an IT context in accordance with the unit's frameworks and constraints.

This will develop the ability to produce an acceptable and viable business solution to an agreed specification with a defined timescale and constraints.

Summary of outcomes

To achieve this unit a learner must:

1. Develop a project plan to an agreed specification
2. Develop a solution using applications software
3. Implement solution using applications software
4. Present and evaluate project.

UNIT 16: INFORMATION SYSTEMS

Organisations have always depended on information to ensure success. Over the years, organisations have changed their information systems from dealing purely with data processing to strategic and decision support. Managers need information to plan successfully in the short, medium and long term. It is also recognised nowadays that information is required at all levels in an organisation and that information itself can have many sources.

The importance of valid information in gaining competitive advantage needs to be stressed. Learners will gain an understanding of the ways in which data can be processed and the applications that support organisations. They will also be asked to evaluate the capacity of an information system to satisfy the needs of the user.

Summary of learning outcomes

To achieve this unit a learner must:

1. Identify information needs within different functional areas of an organisation
2. Compare a range of information systems
3. Examine the tools available to organisations for information processing
4. Evaluate the information systems within an organisation.

UNIT 19 WEBSITE DESIGN

This unit will facilitate the development of an awareness and understanding of the technical and creative skills required to design, construct and manage an effective e-business website interface. Learners will evaluate existing e-business sites, in the context of cross-platforms and a range of browsers. They will analyse a range of commercially available web authoring software and be required to create a viable, interactive website interface, which meets contemporary web design principles.

Summary of learning outcomes

To achieve this unit a learner must:

1. Assess the design and functionality of existing and established e-business sites
2. Examine a range of web authoring tools for creating multimedia websites
3. Develop an integrated set of web pages/frames
4. Develop interactive applications on a web server.

UNIT 23: PROJECT MANAGEMENT

The aim of this unit is to provide a basic knowledge of project management principles, methodologies, tools and techniques that may be used in any industry, the professions and the public sector. Organisational and human resource factors are also included.

Learners will develop an understanding of what constitutes a project and the role of a project manager. They will be able to analyse and plan the activities needed to carry out the project, including how to set up a project, how to control and execute a project, and how to carry out project reviews. They will also understand how the project fits into the company or other organisational environment.

Summary of learning outcomes

To achieve this unit a learner must:

1. Investigate project management principles
2. Examine project organisation and people
3. Examine project processes and procedures.

UNIT 27: e-BUSINESS PROJECT

The aim of this unit is to enable learners to integrate the skills and knowledge they have acquired during the course to produce a viable and realistic e-commerce project. The project undertaken should show as much integration as possible across units already completed or currently under way. This may vary from one learner to the next, and the project should be tailored to the interests and aspirations of the learner.

This is a major piece of work that should demonstrate the performance expected at this level and reflect the unit value in both workload and content. The problem may be work-based, college-based or a learner interest, but it must be developed in accordance with the unit's frameworks and constraints.

Summary of learning outcomes

To achieve this unit a learner must:

1. Select, specify and plan an appropriate project
2. Develop the project to the agreed specification and plan
3. Monitor and control the progress of the project
4. Present and critically evaluate the completed project.

UNIT 39: VISUAL PROGRAMMING FUNDAMENTALS

This unit concentrates on the fundamentals of Visual Programming: the principles of event driven programming, designing the user interface and writing the program code to add the application functionality. The unit provides a grounding for more advanced work in visual programming including ActiveX, object orientation and component-based development (COM) as covered in *Unit 38: Visual Programming Development*.

Summary of learning outcomes

To achieve this unit a learner must:

1. Understand event-driven programming concepts
2. Use the visual programming Integrated Development Environment (IDE) to create applications
3. Understand and demonstrate principles of user interface design
4. Understand and write event-driven code.