

Unit 40: Computer Applications for Financial Management

Unit code:	D/502/5507
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

The aim of this unit is to enable learners to understand the importance of using computerised software to provide up-to-date and accurate financial information.

● Unit introduction

Computerised accounting provides instant, up-to-date and accurate financial information to managers and users within organisations to allow them to monitor and control business operations. A growing number of business organisations routinely use computer accounting software to record transactions rather than relying on a manual bookkeeping system. The original double-entry system of bookkeeping provides all the information needed to prepare final accounts. Final accounts can be designed to suit the business and then previewed on screen before being printed. The ease of producing reports allows organisations to calculate net profit on a monthly basis or as often as the owner requires.

Far more popular than computerised accounting software, is the computerised spreadsheet, which has become an all-purpose computer package for many organisations. With its grid of columns and rows, and facility to use formulae and functions to carry out calculations, the spreadsheet appears to be an ideal medium for storing and presenting accounting information digitally. Data stored on a spreadsheet can easily be changed, and the immediate updating of totals makes the spreadsheet ideal for carrying out 'what-if' analysis.

Database software is far more powerful than the database facility on a spreadsheet. Databases have many uses in an organisation, and despite the presence of computerised accounting software and spreadsheets, they can be invaluable in the accounting environment. The use of appropriate software is the key factor and accounting staff need an appreciation of the functions and uses of each package. Stakeholders and managers of organisations need to see relevant accounting information which is clearly presented. Organisations can make effective use of presentation software to communicate facts and figures in an interesting, dynamic and even exciting manner.

Computerised presentations can incorporate pictures, sounds and moving images to convey information or a message. This presentation is not the essence of financial management but it is a growing part of the move to inform and motivate the workforce. The value of expertise in using of computer applications in a financial environment cannot be overstated and this unit will help learners to gain a high level of competency and a desire to develop their ICT skills further.

● Learning outcomes

On completion of this unit a learner should:

- 1 Be able to use software to record accounting information
- 2 Be able to produce information abstracted from computerised accounting software
- 3 Be able to analyse information from software applications
- 4 Be able to use computer software to present and communicate financial information.

Unit content

1 Be able to use software to record accounting information

Software: spreadsheets; accounting programmes; databases; reasons for use; advantages; disadvantages

Transactions: sales; purchases, cash transactions; income; expenditure; budgets; coding of data; report production eg invoicing, profit and loss account and balance sheet, aged debtors, aged creditors, asset register; inventory control; customer records; supplier records

2 Be able to produce information abstracted from computerised accounting software

Information: expenses; income; assets; liabilities; cash; bank; invoices; credit notes; customer accounts; supplier accounts; trial balance; profit and loss account; balance sheet; budget reports

Formats: view; print; export data, eg to spreadsheet, PowerPoint, Word; save (native, comma separated variable (csv), hypertext mark-up language (html))

3 Be able to analyse information from software applications

Summarise: filter (automatic filter, criteria, exceptional data); spreadsheet formulae and functions; pivot tables and outlines; information in tables and databases; speed, large volume of information

Analyse: interpretation of final accounts (profitability, liquidity, efficiency); departmental and branch comparisons; actual currency and percentage terms

4 Be able to use computer software to present and communicate financial information

Communicate: report; presentation; tables; charts; graphs; digital images; sounds; visual appeal, eg font colour, style, size; volume of information

Interested parties: expert; inexpert

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 record three accounting transactions using a computerised accounting system [IE, TW]	M1 compare the types of software used to record accounting information	D1 assess the value to an organisation of using software for financial transactions
P2 produce information abstracted from a computerised accounting system in a suitable format [TW, SM]	M2 explain how computerised accounting systems produce summaries and analysis of accounting information [CT]	D2 evaluate the effectiveness of the presentation features of software used to communicate financial information. [RL]
P3 produce analytical summaries of the information held on a computerised accounting system [IE, CT, RL, SM]	M3 compare the presentation features of the software used to communicate financial information.	
P4 report the results of information held on a computerised accounting system to interested parties. [IE, RL, SM]		

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills which are embedded in the assessment of this unit. By achieving the criteria, learners will have demonstrated effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

Effective financial management is vital in any organisation and it does not require the use of computer applications. However, it does rely on clear, precise and up-to-date information about the organisation and its finances. Computer applications for accounting make the process of gathering information far more efficient, as relevant accounting reports and analysis can be extracted promptly and accurately. This unit will show learners how accounting data can be entered into the appropriate packages and how further information can be derived and analysis carried out. Specialist accounting software offers a variety of preset reports as well as the facility to amend or completely redesign their content and structure. The computerisation of accounting systems is increasingly common in the workplace and learners should be given practical experience, and an appreciation, of the many accounts-related activities that can be processed in this way.

Computerised spreadsheets are ideal for tasks involving the presentation of text and figures in columns and rows, which is a feature of accounting information. For learning outcome 1, learners will learn how to use spreadsheets, computerised accounts and databases. Emphasis will be on the appropriate choice of software based on the accounting requirements. Learners will use spreadsheets to record data that is historical, current or forecast and attention will be paid to good spreadsheet design, correct use of formulae or functions for calculations and to appropriate formatting of data and cells to enhance the appearance. Good examples of spreadsheets will be studied and discussed to develop learners' appreciation of effective presentation.

Learners may have studied the *Unit 5: Business Accounting* and be familiar with expenditure types, cash flow forecasts, profit and loss accounts, balance sheets and the use of ratio analysis to interpret accounts. Some techniques will be demonstrated to learners using a data projector, enabling them to work on accounting tasks that will allow them to use and demonstrate their learning. Interactive whiteboards may allow learners to record and store spreadsheet routines and the files may be stored on the student net or learning platform. Large group discussions and demonstrations of the spreadsheets learners produced will enhance skills and engender the sharing of good practice. Advantages of using spreadsheets will be discussed.

The use of commercial, computerised accounting software will be demonstrated and discussed. Learners who have taken the Unit: Accounting Systems will already have a good understanding of the manual system. Demonstrations will show learners how to input income and expenditure data and how to extract reports. Learners will be encouraged to work in small groups to experiment with software and to discover how transactions are entered and how required information is found using the reports. Using case studies and pre-saved files of accounting transactions, learners will explore the data and produce relevant reports giving defined information, such as the total expenditure on wages and salaries or analysis of sales. Advantages of using computerised accounting software will be discussed.

Learners will consider appropriate accounting uses for a database and will see demonstrations of how to create tables by defining the fields and how to input data to a table. Case studies will be used to discuss the appropriate use of databases, and learners will work in groups to design database tables and input data. Advantages of using databases will be discussed.

Computerised accounting software has many pre-designed reports that may be viewed or printed. It may be possible to export reports to spreadsheet software. Learning outcome 2 relates to the abstraction of information from computerised accounting software. In the workplace, accounting data may be copied or exported from the computerised accounts software to a spreadsheet so that it can be used for other purposes. A demonstration of the various techniques involved will be necessary. Some reports may not be easily exported to the spreadsheet but by saving them as comma separated variable (csv) files they can be opened by a computerised spreadsheet. Reports saved as hypertext mark-up language (html) files may be displayed on a computer and can be linked to the presentation software for learning outcome 4. Learners

will complete tasks where they transfer data in a variety of ways so that the data may be included in a spreadsheet. This will include information from income, expense, asset and liability accounts, from the various day books and a profit and loss account, a balance sheet and a budget report.

Learning outcome 3 requires learners to use the spreadsheet to filter, summarise and analyse accounting information from software applications. Information may have been entered onto a spreadsheet or it may have been exported or copied from computerised accounts software, or from a database. Learners will learn how to format the spreadsheet to suit the purpose and how to enter formulae or functions that allow interpretation of the information. Automatic filters will be used to filter the data that meets required criteria such as information for different branches or exceptional data such as expenses that are over budget. Pivot tables and outlines will be used within databases to summarise accounting information held in tables or databases. Learners will appreciate the effectiveness of speedy summary of large volumes of information. From profit and loss accounts and balance sheets, organisations assess profitability, liquidity and efficiency by applying the appropriate formulae. Learners will discover how to analyse final accounts on a spreadsheet by adding formulae and labelling the results. Exceptional results, such as a very low return on capital employed, can be highlighted by changing the colour, style or size of the font. Organisations will use conditional formatting to achieve this. Where a sheet is used to present the results for different branches or departments, comparisons will be made in actual terms (currency) and comparative terms (percentage).

The effective communication of financial information to staff, managers and stakeholders depends on the presentation skills of the messenger. It is more than simply issuing a copy of the latest figures. Learning outcome 4 is about the software used to present and communicate this information and learners will develop their understanding of good communication in front of an audience. Today's technology enables the use of sounds and moving images as well as the written word and pictures. Learners will be shown how to use presentation techniques, such as the graphical features in a spreadsheet or a dedicated presentation package such as PowerPoint, to deliver the information. Internet-based learning modules and paper-based workbooks will allow learners to work at their own pace, and interactive whiteboard recording facilities will allow them to collect examples of good practice.

Presentation of charts and graphs to illustrate the figures will improve the clarity and appearance and use of learners' own digital photographs on some slides will make the task more interesting. Learners might use other office software to make the presentation, such as word processing, spreadsheet, publishing or even the notebook available on interactive whiteboards. The emphasis should be on presenting effectively with visual appeal that will hold the attention of any observer, expert or inexperienced. Attention will be paid to the volume of information that is presented, as presentations with too much information are usually ineffective. Learners will prepare and deliver presentations in small groups and will discuss how improvements might be made. Learners will present more detailed information in a brief report, which will have been compiled using word processing and spreadsheet software.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction and outline scheme of work/programme of assignments
Visits/speakers
Formal theory input on computerised accounting software, and transactions
Practical class exercises for application of theory
Preparation for assessment
Assignment 1 – Computerised Accounting Software
Formal theory input on information abstracted and formats
Practical class exercises for application of theory
Preparation for assessment
Assignment 2 – Accounting Data 1
Formal theory input on analysing information and ways of presenting and communicating it
Practical class exercises for application of theory
Preparation for assessment
Assignment 3 – Accounting Data 2
Supervised assignment time
Non-supervised study time and completion of assignments

Assessment

While one assignment could be used to cover the range of assessment criteria, it may be preferable to have two or three. For example, the first assignment could cover P1 and M1. Another assignment could be used to cover P2, P3, M2 and D1. A third assignment could cover P4, M3 and D2, although this could be linked with the second assignment.

For P1, learners could, for example, be given a case study to discuss and agree on the appropriate use of computerised accounts software, a spreadsheet and a database to record accounting data. Individually, they could then input information as agreed. Existing data may already be set up where computerised accounting software is used. Learners input information accurately and use appropriate formula on the spreadsheet to carry out any calculations. Information could be saved using appropriate storage media and a hard copy printed. Learners will be assessed on the accuracy and design of the spreadsheet, as well as the use of formulae. (P1 is linked with M1.)

For P2, learners could work in small groups, using a case study and a pre-saved file of accounting data from computerised accounting software. Initially, learners could draw up a plan showing how to abstract the information based on the nature of the reports and the computerised accounting software itself. Learners could then abstract the required information using the correct method(s) and place it into a spreadsheet. More than one sheet may be used. (P2, P3, M2 and D1 are linked and the assignment can easily be extended to include P4, M3 and D2.)

The spreadsheet makes it very simple to analyse and summarise any numerical information. Appropriate formulae or functions are used to compare figures. Interpretation of final accounts, including profit and loss accounts and balance sheets, involves calculations that measure profitability, liquidity and activity. The results of these calculations may be compared with those of other organisations or with the results from previous accounting periods. Where the information relates to different branches or departments each can be expressed as a percentage of the total. Where different accounting periods are involved, percentage changes can be calculated. Provided the formulae are entered accurately, the analysis will be precise. Exceptional figures can be highlighted by changing font type, style, size or colour and spreadsheets usually have a conditional format that can be set. The spreadsheet has a simple graph or chart feature, so the results of any analysis can be displayed in that format.

For P3, learners could work on the same case study as for P2 and carry out calculations and analysis by using formulae, functions and automatic filtering. Learners could also summarise information by using pivot tables and outlines. The results could be saved to a storage medium and a hard copy printed. (P2, P3, M2 and D1 are linked, and the assignment can easily be extended to include P4, M3 and D2.)

For P4, learners could, initially, use the internet and other available sources to discover hints on presenting information effectively on the computer. They could work in small groups on a case study, preparing a verbal presentation accompanied by appropriate presentation software, to summarise financial information. The financial information can be extracted from computerised accounts software and include the profit and loss account and balance sheet of a business organisation. The presentation should be suitable for expert and inexperienced listeners. (P4, M3 and D2 are linked and the assignment can be extended to include P2, P3, M2 and D1.)

For M1, learners could compare the use made of computerised accounting software, spreadsheets and databases, identifying why each one is used. Choice of software and justification are paramount and learners should show an understanding of the nature and uses of the software.

For M2, learners could write a report detailing the formulae, functions and other features that they have used, or could have used, to summarise and analyse accounting information. They could demonstrate an understanding of automatic filtering based on required criteria and for exception reporting. They should explain how pivot tables and outlines make summarising more effective particularly in dealing speedily with large volumes of information.

For M3, learners could consider and compare different computer packages. They might consider the readability, the ease of adding movement, sound and images, the availability of colourful and attractive designs and the ease of using and navigating through the presentation. Word processing software could be magnified but it is designed for paper documents rather than projected images and it is more difficult to build in links to move from page to page. Presentation software has a slide show mode and a wide variety of backgrounds and slide designs. Slide layout can include graphs, organisation charts and links to moving images or clips. Movement of text and images is routine and the initial text size makes it more difficult to put too much detail on each slide. The comparison should address these issues.

For D1, learners will need to identify the benefits of using computerised accounting software to produce good quality information to interested parties. Learners should also consider the cost associated with implementing such systems in order to be able to make a judgement based on both the costs and the benefits.

For D2, learners should consider how well information is communicated to those who need it. For example, finance staff may be happy with tabulations of data but an owner may want an easily assimilated, broad-brush picture that uses graphics to convey the key features of important information.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, M1	Computerised Accounting Software	Case study	Controlled class work
P2, P3, M2, D1	Accounting Data 1	Case study	Controlled class work
P4, M3, D2	Accounting Data 2	Case study	Controlled class work

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Business sector suite. This unit has particular links with the following unit titles in the Business suite:

Level 2	Level 3
Financial Forecasting for Business	Business Resources
Bookkeeping for Business	Business Accounting
	Financial Accounting
	Management Accounting

This unit should only be delivered after the unit, Introduction to Accounting.

This unit may be delivered at the same time as the Accounting Systems unit.

This unit also links to the following unit of the Level 3 National Occupational Standards for Accounting:

- Unit 21.1: Use computer systems and software.

Essential resources

Learners can find information using company annual reports, journals, magazines, company websites and newspapers.

Access to a range of information resources to complete investigative assignments and case studies will be essential, including relevant CD ROMs and the internet, as will be access to computers and accounting software for research and preparing accounts (using a spreadsheet package). Also to see computerised accounting packages in operation in business. Learners will also need access to relevant paper-based research material including published financial reports and books.

Employer engagement and vocational contexts

Visits to companies and from employee are useful to delivery of this unit. The use of vocational contexts is essential in the delivery and assessment of this unit. Many scientific industries apply the concepts in this unit in the production of chemicals and pharmaceuticals, and within the forensic science and environmental service industry.

Support to enable centres to initiate and establish links to industry, and to networks arranging visits to industry and from science practitioner ambassadors are given below:

Work Experience/Workplace learning frameworks – Centre for Education and Industry (CEI – University of Warwick) www.warwick.ac.uk/wie/cei

Learning and Skills Network www.vocationallearning.org.uk

Indicative reading for learners

Textbooks

Brammer J, Cox D, Fardon M and Penning A – *Active Accounting* (Osborne Books, 2002) ISBN 1872962378

Cox D and Fardon M – *Accounting* (Osborne Books, 1998) ISBN 1872962289

Cox D and Fardon M – *Foundation Accounting Tutorial* (Osborne Books, 2003) ISBN 1872962815

Fardon M – *Computer Accounting* (Osborne Books, 2002) ISBN 1872962270

Oulton N – *Killer Presentations: Power the Imagination to Visualise your Point with PowerPoint* (How To Books, 2005) ISBN 1845280407

Journals

Accountancy (CCH)

Accountancy Age (VNU Business Publications)

Accounting Technician (Centurion Publishing Group)

PQ Magazine (PQ Publishing)

Websites

http://news.bbc.co.uk/1/hi/business/default.stm	The business pages of the BBC website
http://office.microsoft.com/training	Microsoft's website for Office software, which includes training
www.accountancyage.com	Accountancy news and information
www.accountingtechnician.co.uk	Association of Accounting Technicians Online
www.accountingweb.co.uk	Accounting website with useful articles and information about the use of IT in accounting
www.bized.ac.uk	Educational website with information about using spreadsheets in accounting
www.bized.co.uk	A business education resource site
www.bizhelp24.com/index.php	Help and support for businesses
www.businesslink.gov.uk	Business guidance for businesses, including accounting
www.canterbury.gov.uk/buildpage.php?id=3225	Example of a specific local business support website
www.statistics.gov.uk	UK Government statistics, including Retail Prices Index
www.thetimes100.co.uk	The Times 100 case studies
www.tutor2u.net	Educational website for business and economics
www.wikipedia.org	Community editable encyclopaedia

Broadcasts

The following often feature business items:

Working Lunch, BBC2 (daily)

The Money Programme, BBC2 (weekly)

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	investigating business finances, accounts and systems
Creative thinkers	generating ideas about financial data
Reflective learners	reflecting on situations which result in changes in finances
Team workers	working with others in investigating business finances
Self-managers	organising time and resources and prioritising actions when carrying out investigations in to finance.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	planning and carrying out research into the different types of computer systems
Creative thinkers	looking at suitable accounting systems examining reasons/solutions to business change adapting their skills as circumstances change
Reflective learners	setting goals, with success criteria, for researching business finances and frameworks inviting feedback on their own work and dealing positively with praise, setbacks and criticism evaluating their experiences and learning to inform future progress
Team workers	working in a group to discuss ideas and research taking responsibility for their own role managing activities to reach agreements and achieve results
Self-managers	seeking out challenges or new responsibilities and showing flexibility when priorities change dealing with competing pressures, including personal and work-related demands responding positively to change, seeking advice and support when needed
Effective participators	Voicing own views and opinions when working in groups.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	researching business organisations, finances and systems preparing/adjusting of accounts
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	tabulating information
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	finding illustrative materials for presentations and tabulations about financial information creating diagrams, presentations and tabulations
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	exploring, extracting and assessing the relevance of information from websites about computerised software
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	bringing together a variety of materials gathered through research preparing information to present to others
Bring together information to suit content and purpose	
Present information in ways that are fit for purpose and audience	
Evaluate the selection and use of ICT tools and facilities used to present information	
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	communicating with other members of a group

Skill	When learners are ...
Mathematics	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	using numerical data in relation to business finances
Identify the situation or problem and the mathematical methods needed to tackle it	
Select and apply a range of skills to find solutions	
Use appropriate checking procedures and evaluate their effectiveness at each stage	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	
Draw conclusions and provide mathematical justifications	
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	<p>carrying out group work investigating business finances and computerised software</p> <p>attending team meetings</p> <p>making presentations about business financial accounts</p>
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	reading financial information to obtain data to facilitate
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	<p>writing materials to provide financial information</p> <p>producing accounts, graphs and tables, together with reports.</p>