London Chamber of Commerce & Industry

Member of the IAB Group

Qualification Specification

LCCI Level 3 Certificate in Advance Business Calculations

LCCI qualifications

LCCI qualifications are awarded by the IAB, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. For further information, please visit our qualifications website at https://www.iab.org.uk/iab-qualifications/

About IAB

LCCI qualifications have been offered internationally for over 120 years and was started by the London Chamber of Commerce and Industry to meet the need for reliable, high-quality standards across international workforces.

As the way we do business evolves and becomes more fluid on a global scale the demand for internationally recognised standards has never been greater and is a sentiment that is echoed by the IAB who have been supporting financial professionals globally for 50 years.

Based on these shared values from September 2023, the IAB and LCCI will join to continue to offer and develop high-quality, professional qualifications for the finance sector and a range of other professions.

Acknowledgements

This specification has been produced on consultation with teachers, examiners, consultants and other interested parties. IAB would like to thank all those who contributed their time and expertise to the specification's development.

References to third party material made in this specification are made in good faith. IAB does not endorse, approve, or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

All information in this specification is correct at the time of publication.

Contents

Introduction

LCCI qualifications

LCCI qualifications are widely regarded by employers as preparing students to carry out the key functions of modern international business. The qualifications are recognised worldwide by employers, universities and professional bodies such as the Association of Chartered Certified Accountants (ACCA).

IAB LCCI offers a wide range of LCCI qualifications; they are available at Levels 1 to 4 across the following subject areas:

- Business
- Financial and Quantitative
- Marketing.

This specification is part of the Financial and Quantitative suite of LCCI qualifications.

Purpose of the specification

This specification sets out:

- the objectives of the qualification
- any other qualification(s) that a student must have completed before taking the qualification
- any prior knowledge and skills that the student is required to have before taking the qualification
- any other requirements that a student must satisfy before they will be assessed or before the qualification will be awarded
- the knowledge, understanding and skills that will be assessed as part of the qualification
- the method of assessment and any associated requirements relating to it
- the criteria against which a student's level of attainment will be measured.

Rationale

The purpose of the IAB LCCI Level 3 Certificate in Advanced Business Calculations is to allow students to develop the necessary skills to enable them to manually complete a range of advanced business calculations, which replicate those that might be required in the workplace.

The qualification supports students who wish to progress into junior finance roles in non-finance organisations, such as retail or manufacturing businesses. It can also be used by small business owners or entrepreneurs to support the development of their businesses.

When used in conjunction with other LCCI Level 3 Financial and Quantitative qualifications, the IAB LCCI Level 3 Certificate in Advanced Business Calculations provides students with the well-rounded technical skills required to work at officer/executive level within the finance sector.

Qualification aim

The IAB LCCI Level 3 Certificate in Advanced Business Calculations and the legacy qualification are established and valued by employers worldwide. All businesses require a range of advanced and complex calculations to be undertaken accurately and, consequently, there is a demand for employees who possess these skills.

This qualification is intended for students who wish to gain a thorough foundation in key advanced business calculations, including calculating interest, profitability, liquidity and depreciation of business assets. Students will also learn how to complete the calculations necessary for investment appraisal, how to analyse a statement of financial position and will develop the skills required to apply a range of indices effectively to support their business.

The IAB LCCI Level 3 Certificate in Advanced Business Calculations is designed for those who are working, or are preparing to work, in a finance-related role at an officer or executive level, within a wide range of business environments. It is also ideal as an introduction to the more advanced business calculations that would be used by sole traders, small business owners or entrepreneurs who are running their own businesses.

Specification at a glance

The IAB LCCI Level 3 Certificate in Advanced Business Calculations consists of one online examination.

IAB LCCI Level 3 Certificate in Advanced Business Calculations	
• Externally assessed	100% of the total qualification
Overview of content 1 Business ownership 2 Profitability and liquidity 3 Depreciation of business assets 4 Investment appraisal and optimisation 5 Simple and compound interest 6 Indices and trends	
Overview of assessment • One online, externally set and marked examination, contributing to 100% of the overall grade of the qualification. • The examination will be 3 hours. • The examination will consist of 100 marks. • Questions will normally be set within an appropriate business context. • The examination contains five or six questions. • Students are required to answer all questions. • Students will be graded Pass/Merit/Distinction. A result of fail will be recorded where students do not achieve the required marks for a Pass. • The questions comprise table completion, calculations, short open-response, and medium open-response questions. • Ruler, protractor, calculator, and formula sheet may be used in the examination.	

Knowledge, skills and understanding

Content

To prepare students for the final assessment of this qualification, the following content must be covered.

1 Business ownership

Subject content	What students need to learn
1.1 Terminology and concept	a) Knowledge and understanding of different terminology and concepts in business ownership. Sole trader, partnership, limited company, fixed cost, variable cost, price, ordinary share, preference share, nominal value, par, market value, stock, dividend, redeem, redemption, commission, current and non-current assets, break-even point, output, sales, revenue, contribution, gross profit or loss, net profit or loss, overhead expenses, supply, demand, marginal costs, average costs, revenue maximisation, profit maximisation.
1.2 Revenue and costs	a) Knowledge and understanding of the differences between various costs and assessing their usage.
	b) Calculation of: • value of fixed costs, variable costs, and total costs • total revenue based on sales and prices • gross and net profit in absolute and percentage terms.
1.3 Break-even analysis	a) Knowledge and understanding of break-even analysis and its use in business planning.
	b) Calculations of: • break-even point in units of production and/or revenue • level of output to yield a given level of profit • level of profit at a given level of output • contribution per unit.
Subject content	What students need to learn

1.4 Presentation of findings	a) Presentation and calculation of findings through graphical means: • graph of costs against output • break-even chart • graph of supply and demand • graph of marginal and/or average costs. Note: Where graphs are curved, knowledge of the equation of the curve will not be expected.
1.5 Comparison	a) Understanding of how to compare projects using a variety of methods.
	b) Comparison of two or more projects with varying fixed and variable costs.
	c) Evaluation of circumstances for choosing one project in preference to others, with reasoning.
	d) Comparison using graphical methods.
1.6 Company shares	a) Knowledge and understanding of company shares, and how profits or losses can be accrued through their purchase or sale.
	b) Calculations relating to ordinary and/or preference shares: • value of a purchase/sale of shares • associated commission costs • profit and dividend payments on shares • percentage yield on an investment • comparison of competing investments.

2. **Profitability and liquidity**

Subject content	What students need to learn
2.1 Terminology and concept	a) Knowledge and understanding of different terminology and concepts in profitability and liquidity. Turnover, receivables, payables, working capital, shelf life, inventory turnover, equity, current, non-current, liabilities, bankrupt, secured debt, unsecured debt, dividend, gearing ratio, current ratio, acid-test ratio.
2.2 Ratios to assess profitability and liquidity	a) Knowledge and understanding of different ratios used in business, and how these relate to the health of a business.
	b) Calculation of: • gross profit percentage • percentage profit for the year • expense ratio • percentage return on capital employed • working capital (current) ratio • acid test ratio • gearing ratio • trade receivables collection period • trade payables payment period • shelf-life and stock turn.
2.3 Statement of financial position (SOFP)	a) Knowledge and understanding of statements of financial position (SOFP), and the calculations that may be performed from figures in a SOFP.
	b) Calculation of: • current and non-current assets • current and non-current liabilities • equity.
	c) Completion of a statement of financial position.

	d) Analysis of a statement of financial position.
Subject content	What students need to learn
2.4 Bankruptcy	a) Knowledge and understanding of bankruptcy and the division of assets among various creditors.
	b) Calculations, given assets and liabilities of a bankrupt business: • sums owing to secured creditors • sums available to unsecured creditors • dividend available for unsecured creditors • sum payable to an unsecured creditor owed a stated amount • amount owed to an unsecured creditor paid a stated amount • segregation of debts of a creditor with both secured and unsecured debts paid a stated amount.

3. **Depreciation of business assets**

Subject content		What students need to learn
3.1	Terminology and concept	a) Knowledge and understanding of different concepts in depreciation. Current asset, non-current asset, depreciation, carrying value, working life, depreciation schedule, scrap value, reducing balance depreciation, straight line depreciation.
3.2	Straight line depreciation	a) Knowledge and understanding of straight-line depreciation and how to apply it to a business situation.
		b) Calculation of: • total depreciation over a period of years using straight line depreciation • annual depreciation • carrying value of a non-current asset after deduction of depreciation • comparison of these figures with another straight-line depreciation scenario.
3.3	Reducing balance depreciation	a) Knowledge and understanding of reducing balance depreciation and how to apply it to a business situation.
		b) Calculation of: • total depreciation over a period of years using reducing balance depreciation • amount of annual depreciation in any single year • rate of annual depreciation • carrying value of a non-current asset after deduction of depreciation • comparison of these figures with another reducing balance depreciation scenario.

Subject content	What students need to learn
3.4 Presentation of findings	a) Presentation of calculations through: • preparation of a depreciation schedule for either method of depreciation, showing annual and accumulated depreciation over the lifetime of the non-current asset, and the carrying value at the end of each year • drawing a graph of carrying value against time for one or more depreciation calculations.
3.5 Comparison	a) Knowledge and understanding of how to compare depreciation methods.
	b) Comparison and explanation of: • most appropriate method for depreciation • comparative values at points in time.

4. **Investment appraisal and optimisation**

Subject content		What students need to learn
4.1	Terminology and concept	a) Knowledge and understanding of different terminology and concepts in investment appraisal. Net Present Value (NPV), Internal Rate of Return (IRR), Average Rate of Return (ARR), depreciation, discount factor, payback, payback period, cash flow.
		b) Knowledge and understanding of different terminology and concepts in logistics and inventory management. Logistics, scheduling, demand, stock, buffer stock, profit maximisation, sales maximisation, credit taken, credit granted, insurance.
4.2	Payback	a) Knowledge and understanding of payback periods, and calculation of a payback period given suitable information.
		b) Appraisal of an investment project on the basis of the period required to pay back the initial sum invested.
4.3	Net Present Value (NPV)	a) Knowledge and understanding of NPV, given suitable information.
		b) Calculation of: • NPV given outflows and inflows for a project and a set discount factor • discount factor given information about the estimated time value of money.
4.4	Internal Rate of Return (IRR)	a) Knowledge and understanding of IRR, given suitable information.

	b) Calculation of: • IRR of an investment project, given information about net present values at different discount factors • NPV at a particular discount factor, given information about NPV at a different factor and given the IRR.
Subject content	What students need to learn
4.5 Annual Rate of Return (ARR)	a) Knowledge and understanding of ARR, given suitable information.
	b) Calculation of: • assessment of charges over the lifetime of a project • total return of a project over its lifetime • Average Rate of Return.
4.6 Optimisation	a) Knowledge and understanding of the principles of ordering, scheduling and resource allocation to maximise output, profit, or sales.
	b) Calculations relating to: • matching of tasks to be performed to different staff members, and the way in which these can be allocated to maximise output, including finding complete matchings and including use of bipartite graphs • linear programming by deriving equations or inequalities from given data concerning two variables and using an objective function to find a feasible or optimal solution • graphical solution of two variable problems using ruler and vertex methods, to find maximum profit, maximum output, or minimum cost, including consideration of integer value solutions • modelling of a project to find the most advantageous schedule, using a Gantt chart, limited to four elements to be sequenced.
4.7 Inventory	a) Knowledge and understanding of different methods of managing inventory, and the ordering costs involved.

	b) Calculations relating to: • Economic Order Quantity (EOQ) • ordering cost • holding cost • total cost • changes to include given buffer stock or supplier discount.
Subject content	What students need to learn
4.8 Presentation of findings	a) Knowledge and understanding of the ways in which findings can be presented.
	b) Presentation of calculations through: • preparation of a Net Present Value table, showing annual cash inflow and/or outflow over the lifetime of the proposed investment, discount factors, and the carrying value at the end of each year • drawing a graph of Internal Rate of Return against net present value, or of cash inflow against Net Present Value or Internal Rate of Return, in which all relationships will be assumed to be linear • other graphs involving inventory, credit taken or given • preparation of bipartite graphs to efficiently allocate resources, such as staff members • preparation of Gantt charts with up to four elements, showing the dependency of one element upon another.
4.9 Comparison	a) Understanding of how to compare investment projects and appraisals, find the optimum for a linear programming problem, or assess use of an Economic Order Quantity.

	b) Interpretation of: • calculations carried out on a specific project, making judgements as to whether to proceed with that project • calculations to compare alternative projects, making judgements as to which, if either, should be proceeded • linear programming graphs to find optimum values in terms of cost, profit, or output • the costs involved in using or not using an Economic Order Quantity.

5. **Simple and compound interest**

Subject content		What students need to learn
5.1	Terminology and concept	a) Knowledge and understanding of different terminology and concepts in simple and compound interest. Principal, rate of interest, loan, investment, period, withdrawal, repayment.
5.2	Calculating interest	a) Knowledge and understanding of the differences between simple and compound interest and their uses within a business environment.
		b) Knowledge and understanding of how interest impacts loans and investments in terms of adding or removing value over time.
		c) The relationship between amount of interest, amount of principal, rate of interest paid or chargeable and the period of a loan or investment.
		d) Knowledge and understanding of how to rearrange and select the formulae relevant to simple and compound interest.
		e) Calculation of: • amount of interest paid/payable after a single year or number of whole years, or several months or days, or a combination of these that may include a fractional or decimal form • the rate of interest used in arriving at a given amount of interest • principal borrowed or invested, given the interest paid/payable over a given time • the number of years, months, or days for which the principal was invested/borrowed, given the amount and rate of interest paid/payable.

Subject content	What students need to learn
5.3 Currency conversion	a) Calculations will involve: • converting a value from one currency to a second • taking account of conversion fees • converting a different value from a third currency to facilitate comparison • assessing the difference between conversion at one exchange rate with conversion at a later different exchange rate.
5.4 Comparison	a) Knowledge and understanding of how to compare amounts and rates of interest.
	b) Calculations relating to: • comparison between amounts of simple and compound interest payable on an investment or loan • comparison of interest where compounding occurs over different periods, such as annual, quarterly, monthly, or daily compounding.

6. Indices and trends

Subject content		What students need to learn
6.1	Terminology and concept	a) Knowledge and understanding of different terminology and concepts in indices and trends. Base year, current year, price index, quantity index, price relative, quantity relative, weighted index.
6.2	Simple indices	a) Knowledge and understanding of the uses of different simple indices.
		b) Calculation of: • price index or quantity index value from given data • prices or quantities from given data and knowledge of the relevant index.
		c) Conversion between indices and relatives.
6.3	Composite indices	a) Knowledge and understanding of the uses of different composite indices.
		b) Calculation of: • value of a weighted index number from given data • future values of prices, quantities or outputs based on given data and knowledge of the weighted index.
		c) Comparison of individual groups or sets to the weighted index or mean and comparison of grouped information, e.g., men, to more general information, e.g., men and women.
6.4	Change of base year	a) Calculations involving: • change of base year for a given index value • creation of a new index following change of base year • creation of a chain base index from a given standard index.

Subject content	What students need to learn
6.5 Trends and graphs	a) Knowledge and understanding of graphs used in business to interpret information. Creation of accurate graphs to display given or calculated information, including accurate axes and labeling.
	b) Calculations relating to: • gradient of a line or curve from its graph or from its equation • identification of intercepts from a graph or from the equation of a given line • identification of intersections of lines to solve problems.
6.6 Presentation of findings	a) Knowledge and understanding of the ways in which findings can be presented.
	b) Graphical presentation of data, to include bar charts, histograms, pie charts, scatter graphs, bipartite graphs, Gantt charts, stem, and leaf diagrams.
	c) Presentation of information by: • drawing graphs of lines with linear, quadratic, or exponential form • drawing and identifying intercepts and intersections.

Delivery guidance

Examinations for this qualification will involve scenario-based questions. The questions give a business situation and ask students to identify concepts, carry out calculations and analyse aspects of that situation. The questions are set in this way to give students the opportunity to think about scenarios that they are likely to face in future employment.

There will be five or six questions on the examination, and all should be attempted. All six topics covered in this specification will be addressed on each examination paper, but not all subject content under each topic will be examined on every paper. It is expected that all the material will be examined at some point in the lifetime of the specification; students should be prepared to answer questions on all sections of the content.

Several elements in the content section refer to 'suitable information.' This means that the scenario presented in a question will determine what that information might be.

In *Content area 4: Investment appraisal and optimisation,* 'suitable information' for calculating payback periods would include cash inflows and outflows in the different years of a project's lifetime. The details of this will be different in each examination.

Similarly, suitable information in the subsection on Net Present Value (NPV) would include information about cash inflows and outflows, as well as discount factors or a discount rate to be applied. Comparable information would allow for calculations in the areas of internal and average rates of return.

Examinations for this qualification will use several different currencies in circulation in different countries in the world. A list of the currencies that may be used is provided in the formula sheet given to students at each examination. Students are expected to recognise these currencies and the countries from which they originate, and to recognise and write the currency symbols. The examinations will not include currencies not provided in the formula sheet.

Assessment

Assessment summary

IAB LCCI Level 3 Certificate in Advanced Business Calculations
First Teaching: January 2022 Number of Series: 5

Overview of content

1 Business ownership

2 Profitability and liquidity

3 Depreciation of business assets

4 Investment appraisal and optimisation

5 Simple and compound interest

6 Indices and trends

Overview of assessment

- One online, externally set and marked examination, contributing to 100% of the overall grade of the qualification.
- The examination will be 3 hours.
- The examination will consist of 100 marks.
- Questions will normally be set within an appropriate business context.
- Students will be required to answer all questions.
- Students will be graded Pass/Merit/Distinction. A result of fail will be recorded where students do not achieve the required marks for a Pass.
- The questions comprise table completion, calculations, short open-response and medium open-response questions.
- Ruler, protractor, calculator, and formula sheet may be used in the examination.

Assessment objectives

Assessment objectives have been developed for this qualification to ensure that examinations are appropriately targeted. The assessment objectives describe the abilities that students should be able to demonstrate. Each question targets one or more assessment objectives. They are applied to the examination in the proportions below.

Students must:		% of qualification
AO1 Recall	Recall business facts and terminology.	8
AO2 Perform procedures	Extract and manipulate data (e.g., putting data into cumulative terms). Convert figures from one form to another (e.g., currency, percentage). Use and apply calculations in a range of business contexts, including any of financial data, manufacturing, inventory and pricing, investment appraisal, bankruptcy and economic indicators.	69
AO3 Demonstrate understanding	Select appropriate calculation methods as an aid in solving business problems and making business decisions. Display and present data in tables or charts. Present information in appropriate format (e.g., using correct currency symbol, figures to appropriate decimal places, present ratios in correct format, indices). Demonstrate understanding of business processes and procedures.	13
AO4 Analyse	Classify and compare results of calculations, diagrams, tables, charts, and graphs. Interpret results from business calculations, diagrams, tables, charts, and graphs. Recognise patterns and correlations.	6

Students must:		% of qualification
AO5 Evaluate	Build a reasoned decision. Make judgements about the significance of information. Predict consequences. Make recommendations.	4
Total		100

Performance descriptors

Grade	Descriptors
Pass	Students can recall, use and apply business facts, terms, processes and formulae applicable to large businesses. Students can manipulate data and perform routine calculations. They can convert figures from one form to another. Students can produce and understand a variety of appropriate tables and charts. Students can demonstrate an understanding of business processes and procedures.
Distinction	Students can demonstrate a detailed knowledge and understanding of business processes and procedures using business facts, terms, and formulae consistently and effectively in given scenarios applicable to large businesses. Students can perform more complex multi-step business calculations over a range of topics accurately. They can convert figures from one form to another consistently and with precision. Students display depth of understanding of data through detailed tables and charts Students can evaluate analysing and interpreting business data and make strategic recommendations.

Entry and assessment information

Please see the IAB *Information Manual* and the *Pearson LCCI examination regulations*, available on our website, https://www.iab.org.uk/lcci/

Student entry

Details on how to enter students for the examination for this qualification can be found at https://www.iab.org.uk/lcci/

The closing date for entries is approximately six weeks before the start of each examination series. Centres should refer to the published examination timetable for examination dates.

Combinations of entry

There are no forbidden combinations of entry for this qualification.

Age

This qualification is intended for students aged 16 and above.

Resitting the qualification

Students can resit the examination for IAB LCCI Level 3 Certificate in Advanced Business Calculations.

It is strongly advised that students do not register to undertake a resit until they have received the results from their previous examination.

Awarding and reporting

The IAB LCCI Level 3 Certificate in Advanced Business Calculations qualification is certificated on a three-grade scale: Pass/Merit/Distinction. Pass and Distinction are awarded, Merit is arithmetically calculated.

Access arrangements, reasonable adjustments and special consideration

Access arrangements

Access arrangements are agreed before an assessment. They allow students with special educational needs, disabilities, or temporary injuries to:

- access the assessment
- show what they know and can do, without changing the demands of the assessment.

The intention behind an access arrangement is to meet the needs of an individual student with a disability, without affecting the integrity of the assessment. Access arrangements are the principal way in which awarding bodies comply with their duty under the Equality Act 2010 to make 'reasonable adjustments'.

Access arrangements should always be processed at the start of the course. Students will then know what is available and have the access arrangement(s) in place for assessment.

Reasonable adjustments

The Equality Act 2010 requires an awarding organisation to make reasonable adjustments where a person with a disability would be at a substantial disadvantage in undertaking an assessment. The awarding organisation is required to take reasonable steps to overcome that disadvantage.

A reasonable adjustment for a particular person may be unique to that individual and therefore might not be in the list of available access arrangements.

Whether an adjustment will be considered reasonable will depend on several factors, which will include the:

- needs of the student with the disability
- effectiveness of the adjustment
- cost of the adjustment; and
- impact of the adjustment on the student with the disability and other students.

An adjustment will not be approved if it involves unreasonable costs to the awarding organisation, has untenable timeframes or affects the security or integrity of the assessment. This is because the adjustment is not 'reasonable.'

Special consideration

Special consideration is a post-examination adjustment to a student's mark or grade to reflect temporary injury, illness, or other indisposition at the time of the examination or assessment, which has had, or is reasonably likely to have had, a material effect on a student's ability to take an assessment or demonstrate their level of attainment in an assessment.

Further information

Please see the website for further information about how to apply for access arrangements and special consideration.

For further information about access arrangements, reasonable adjustments and special consideration please refer to the JCQ website: www.jcq.org.uk.

Equality Act 2010 and IAB equality policy

Equality and fairness are central to our work. Our Equality Policy requires all students to have equal opportunity to access our qualifications and assessments, and our qualifications to be awarded in a way that is fair to every student.

We are committed to making sure that:

- students with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to students who do not share that characteristic
- All students achieve the recognition they deserve for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

You can find details of how to make adjustments for students with protected characteristics in the policy document *Access Arrangements, Reasonable Adjustments and Special Considerations*, which is on our website https://www.iab.org.uk/lcci/

Malpractice

Student malpractice refers to any act by a student that compromises or seeks to compromise the process of assessment or which undermines the integrity of the qualifications or the validity of results/certificates.

Student malpractice in examinations must be reported to IAB awarding team by email ao@iab.org.uk clearly identifying the title or posted to the registered office 110 Bishopsgate, London, EC2N 4AY. Please provide as much information and supporting documentation as possible. Note that the final decision regarding appropriate sanctions lies with IAB.

Failure to report malpractice constitutes staff or centre malpractice.

Staff/centre malpractice

Staff and centre malpractice includes both deliberate malpractice and maladministration of our qualifications. As with student malpractice, staff and centre malpractice is any act that compromises or seeks to compromise the process of assessment, or which undermines the integrity of the qualifications or the validity of results/certificates.

All cases of suspected staff malpractice and maladministration must be reported immediately, before any investigation is undertaken by the centre, to IAB awarding team by email ao@iab.org.uk clearly marked malpractice or posted to the registered office 110 Bishopsgate, London, EC2N 4AY. Please provide as much information and supporting documentation as possible. Failure to report malpractice itself constitutes malpractice.

More detailed guidance on malpractice can be found in the latest version of the document *JCQ Suspected Malpractice Policies and Procedures,* available at: www.jcq.org.uk/exams-office/malpractice.

Language of assessment

Assessment of this specification will be in English only. Assessment materials will be published in English only and all work submitted for examination must be in English only.

Other information

Total Qualification Time (TQT) and Guided Learning Hours (GLH)

For all regulated qualifications, we specify the total number of hours that students are expected to undertake to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, we identify the number of Guided Learning Hours (GLH) that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating students, for example lectures, tutorials, online instruction and supervised study.

As well as guided learning, there may be other required learning that is directed by tutors or assessors. This includes, for example, private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

TQT and guided learning hours are assigned after consultation with users of the qualifications.

This qualification has a TQT value of 200 and a GLH of 160-180.

Student recruitment

IAB follows the JCQ policy concerning recruitment to our qualifications in that:

- They must be available to anyone who can reach the required standard
- They must be free from barriers that restrict access and progression
- Equal opportunities exist for all students.

Prior learning and other requirements

There are no formal entry requirements for this qualification.

Students may be studying in a local language, but the assessment will be in English. IAB recommends students have B1 level of English on the Common European Framework of Reference (CEFR). This will support access to the assessment materials and be able to communicate responses effectively.

IAB's *Recognition of prior learning policy and process* document can be found at https://www.iab.org.uk/lcci/

Progression

LCCI qualifications are designed to allow students to pursue different routes as outlined below.

Enter a chosen field of work, pursue a promotion, or change their field of work.

The IAB LCCI Level 3 Certificate in Advanced Business Calculations supports progression into employment,

as suitable preparation for candidates intending to work at an advanced level in a business environment.

Progress to further study, such as the next LCCI level or externally with a professional body or education provider.

This qualification allows progression to LCCI Level 4 Accounting qualifications, as well as qualifications across the LCCI suites. Completing different LCCI qualifications could potentially lead to gaining an IAB LCCI Diploma. Please refer to the 'Exemptions' section of this specification for information on recognition from external providers, or the latest LCCI Information Manual for more information about Diplomas.

Exemptions

We are continuously gaining new and updated exemptions for our IAB LCCI qualifications from professional bodies and organisations. For the latest list of agreements, and to check this specific qualification, please visit the IAB LCCI website: https://www.iab.org.uk/lcci/

The qualification is approved by Ofqual and meets the Ofqual General Conditions for Recognition on the Register of Regulated Qualifications. The Qualification Number (QN) is **********.

The subject code for the IAB LCCI Level 3 Certificate in Advanced Business Calculations is: *******. The subject code is used by centres to enter students for a qualification.

Support, training and resources

Training

IAB offers support and training to teachers on the standard of delivery and preparing students to meet the assessment requirements.

Specifications, sample assessment materials and teacher support materials

The IAB LCCI Level 3 Certificate in Advanced Business Calculations sample assessment materials can be downloaded from our website.

To find a list of all the support documents available, please visit our website: https://www.iab.org.uk/lcci/

Appendices

Appendix 1: Formula Sheet

Appendix 2: Glossary of International Accounting Standards terminology

Appendix 1: Formula Sheet

Currencies

The following currencies may appear in the examination paper: British pound sterling (£)

US dollar ($)

euro (€)

Australian dollar (AU$)

Thai baht (฿)

Singapore dollar (S$)

Myanmar kyat (K)

Brunei dollar (B$)

Malaysian ringgit (RM)

Indonesian rupiah (Rp)

South Korean won (₩)

Japanese yen (¥)

Philippines peso (₱)

Canadian dollar ($)

Simple interest

$$Simple\ interest = \frac{Principal \times Rate \times Time}{100}$$

Compound interest

$$I = \frac{PRT}{100}$$

$$Accrued\ value = Principal \times \left(1 + \frac{Rate}{100}\right)^{Time}$$

$$A = P\left(1 + \frac{R}{100}\right)^{r}$$

Averages

Mean of ungrouped data:

$$\bar{x} = \frac{(x_1 + x_2 + \cdots + x_n)}{n}$$

or

$$\bar{x} = \frac{\left|\sum_{i=1}^{n} x_i\right|}{n}$$

Mean of grouped data:

$$\bar{x} = \frac{\sum fx}{\sum f}$$

Mode is most frequently occurring value

Median of an ordered list of n elements is the $\frac{n+1}{2}$ th element

Ratios

Current ratio is total current assets : total current liabilities

- Less than 1.5:1 is insufficient in the event of adverse business conditions.
- Over 3:1 is unhealthy as it indicates an opportunity cost.
- A current ratio between 1.5:1 and 3:1 is considered healthy.

Acid test ratio is (total current assets – total stock): total current liabilities

- Less than 1:1 is considered unhealthy as the business has insufficient, immediately available assets to pay off all liabilities.
- Over 1:1 is considered healthy as the business has sufficient available assets to pay off all liabilities without having to first sell stock.
- More than 2:1 is considered wasteful in the same way as an overly high current ratio.

Gearing ratio is total borrowings: net worth

We can also consider it in more detail as

$$\frac{\text{Long-term debt + Short-term debt + bank overdraft}}{\text{: shareholder's equity}}$$

Gearing ratio is a measure of the balance of the source of funds within a business, either from borrowing or from shareholder equity.

- Above 0.5:1 is considered unsafe as too much of the funds in the business are in the form of debts that could be recalled.
- Below 0.25:1 is considered inefficient as a business with this ratio would be able to borrow more for investment and to increase profitability.
- Between 0.25:1 and 0.5:1 is usual for a well-established company and is considered healthy.

Internal Rate of Return (IRR)

$$IRR = \text{Lower \% rate} + \frac{\text{NPV at lower \% rate}}{\text{difference between lower \% NPV and higher \% NPV}} \times (\text{Difference in \% rates})$$

or

$$IRR = \frac{N_1R_2 + N_2R_1}{N_1 + N_2}$$

where $N1$ and $N2$ are the two NPV values and $R1$ and $R2$ are the two percentage rates.

Average Rate of Return (ARR)

$$ARR = \frac{Average\ net\ return\ per\ year}{Capital\ cost}$$

Economic Order Quantity (EOQ)

$$EOQ = \sqrt{\frac{2 \times Annual\ Demand \times Cost\ per\ order}{Annual\ holding\ cost\ per\ unit}} = \sqrt{\frac{2DK}{h}}$$

Total annual inventory cost: $T = PD + \frac{KD}{Q} + \frac{hQ}{2}$

where P is purchasing unit cost, D is annual demand, K is fixed cost per order, Q is order quantity and h is annual holding cost per unit.

Reducing balance depreciation

$$Rate = 1 - \frac{Carrying\ value\ after\ (n+1)\ periods}{Carrying\ value\ after\ n\ periods} \quad 1 - \frac{CV(n+1)}{CV(n)} = \text{Constant}$$

Given original value and scrap value,

$$Rate = 1 - \sqrt[t]{\frac{Scrap\ value}{Original\ value}}$$ where t is time from purchase to scrap in periods.

Straight line depreciation

Annual Depreciation = Carrying value after n periods – Carrying value after (n+1) periods
= Constant

$$\text{Annual Depreciation} = \frac{Cost - ScrapValue}{Number\ of\ years}$$

Appendix 2: Glossary of International Accounting Standards terminology

The following is a glossary of the comparison between the International Accounting Standards (IAS) terminology and the UK GAAP (Generally Accepted Accounting Practice in the UK) terminology. IAS terminology is used in the content of the LCCI Financial and Quantitative suite of qualifications but not all terms are present in all levels of the qualifications.

Centres should be aware that these terms are also referred to as International Financial Reporting Standards (IFRS) in certain contexts within the industry, however the definitions and meaning remain the same.

IAS terminology	Previously used UK GAAP terminology
Financial statements	Final accounts
Statement of profit or loss	Trading and profit and loss account
Revenue	Sales
Raw materials/ordinary goods purchased	Purchases
Cost of sales	Cost of goods sold
Inventory	Stock
Work in progress	Work in progress
Gross profit	Gross profit
Other operating expenses	Sundry expenses
Allowance for doubtful debt	Provision for doubtful debt
Other operating income	Sundry income
Investment revenues/finance income	Interest receivable
Finance costs	Interest payable
Profit for the year before tax or after tax	Net profit
Retained earnings	Profit/loss balance
Statement of changes in equity (limited companies)	Appropriation account
IAS terminology	Previously used UK GAAP terminology

Statement of financial position	Balance sheet
Non-current assets	Fixed assets
Property	Land and buildings
Plant and equipment	Plant and equipment
Investment property	Investments
Intangible assets	Goodwill etc.
Current assets	Current assets
Inventory	Stock
Trade receivables	Debtors
Other receivables	Prepayments
Cash and cash equivalents	Bank and cash
Current liabilities	Current liabilities/creditors amounts due within 12 months
Trade payables	Creditors
Other payables	Accruals
Bank overdraft and loans	Loans repayable within 12 months
Non-current liabilities	Long-term liabilities/creditors: amounts falling due after 12 months
Bank (and other) loans	Loans repayable after 12 months
Capital or equity	Capital
Share capital	Share capital
Statement of cash flows	Cash flow statement

IAS terminology	Previously used UK GAAP terminology
Other terms	
Inventory count	Stock take
Carrying value	Net book value

June 2023

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