UNIVERSITY OF LIVERPOOL

BSc (Hons)

# Financial Computing

**UCAS code** GN34

| **Study mode** | **Duration** | Apply by: **30 June 2026** |
| --- | --- | --- |
| Full-time | 3 years | Starts on: **28 September 2026** |

## About this course

Financial computing is at the very heart of the world's global financial centres, from Wall Street to Chicago, London and Tokyo. This dynamic programme will develop your knowledge and skills in all aspects of financial services.

## Introduction

Study Financial Computing at Liverpool and learn to understand the underlying technology that powers modern financial markets and the financial theory that steers them.

Bringing together finance, economics and computing, this programme will develop your understanding of financial services by developing your knowledge and practical skills of algorithms; financial accounting; designing, implementing and evaluating software systems to analyse stock portfolios and operating financial markets.

Taught in conjunction with the Management School, your studies will be guided by experts in both computer science and financial services. After covering core elements in your first year, we subsequently give you the flexibility to tailor and focus your learning to your own interests or you can choose to maintain a balanced mixture of modules throughout your degree.

## What you'll learn

- Financial accounting to correctly prepare statements and transactions
- Management accounting to aid planning and decision making
- Database development
- Frame real world problems in an economic model
- Object-orientated programming
- Analytical techniques for problem solving
- Digital ethics and legal aspects of computing
- Technologies for E-commerce

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# Course content

Discover what you'll learn, what you'll study, and how you'll be taught and assessed.

### Year one

Year one of the programme has been designed as an even split between topics relating to computing and topics related to accounting, economics, finance and management.

In year one you will learn the fundamentals of computing, accounting, economics, finance and management. This initial broad scope will instil confidence to apply practical techniques such as making and recording financial transactions; expand on theories such as software design methodology; management decision making and microeconomics. You will also gain an all round understanding of what is expected from a computing professional in the current digital environment.

In year one students will typically undertake either COMP101 (Introduction to Programming) or COMP105 (Programming Language Paradigms) based on prior exposure to programming (eg Computer Science A level). Students without a computer science background will normally study COMP101, however in some instances may be permitted to enrol on COMP105 instead.

All other year one modules are required.

## Modules

| Compulsory modules | Credits |
|---|---|
| ANALYTIC TECHNIQUES FOR COMPUTER SCIENCE (COMP116) | 15 |
| DESIGNING SYSTEMS FOR THE DIGITAL SOCIETY (COMP107) | 15 |
| INTRODUCTION TO FINANCIAL ACCOUNTING (ACFI101) | 15 |
| INTRODUCTION TO MANAGEMENT ACCOUNTING (ACFI102) | 15 |

| Compulsory modules | Credits |
|---|---|
| OBJECT-ORIENTED PROGRAMMING (COMP122) | 15 |
| ECONOMIC PRINCIPLES FOR BUSINESS AND MARKETS (ECON127) | 15 |
| PRINCIPLES OF FINANCE (ACFI113) | 15 |
| INTRODUCTION TO PROGRAMMING (COMP101) | 15 |
| PROGRAMMING LANGUAGE PARADIGMS (COMP105) | 15 |

Programme details and modules listed are illustrative only and subject to change. As part of our commitment to continuous improvement, we are currently reviewing all of our programmes. This may include refining study pathways, strengthening links with employers, integrating generative AI, developing students' research skills, and enhancing alignment with our research strengths. The course content currently shown on this page reflects the programme as it is running in September 2026. This page will be updated for students beginning in September 2027 by 1 September 2026 at the latest.

### Year two

In year two you continue with a mix of modules related to computing, accounting, economics, finance and management but also have the opportunity to specialise in certain subject areas of your choice.

You will continue to develop your knowledge from your first year of study by being introduced to more complex and advanced theories and techniques whilst at the same time expanding upon already established standards and concepts. You will look to use real market data wherever possible to make theory come to live.

You will take all the compulsory modules listed, and select modules from the optional module list.

## Modules

| Compulsory modules | Credits |
|---|---|
| COMPUTER-BASED TRADING IN FINANCIAL MARKETS (COMP226) | 15 |
| CORPORATE FINANCIAL MANAGEMENT FOR NON-SPECIALIST STUDENTS (ACFI213) | 15 |
| DATABASE DEVELOPMENT (COMP207) | 15 |
| GROUP SOFTWARE PROJECT (COMP208) | 15 |
| FINANCIAL REPORTING 1 (ACFI201) | 15 |
| SECURITIES MARKETS (ECON241) | 15 |
| SOFTWARE ENGINEERING I (COMP201) | 15 |

| Optional modules | Credits |
|---|---|
| ACCOUNTING THEORY (ACFI202) | 15 |
| ETHICS AND REGULATIONS IN FINANCE (ACFI230) | 15 |
| COMPUTER AIDED SOFTWARE DEVELOPMENT (COMP285) | 7.5 |
| SCRIPTING LANGUAGES (COMP284) | 7.5 |

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### Year three

A major part of your studies in year three will be the Honours Year Automated Trading Project that you take part in as a member of a team. This project allows you to demonstrate practical competence in both research and development of computer-based trading strategies utilising everything learned across the programme.

You take all the compulsory modules listed, and you will also choose modules from the selected optional modules list.

## Modules

| Compulsory modules | Credits |
|---|---|
| FINANCIAL RISK MANAGEMENT (ACFI342) | 15 |
| INTRODUCTION TO COMPUTATIONAL GAME THEORY (COMP323) | 15 |
| BUSINESS FINANCE (ACFI304) | 15 |
| HONOURS YEAR AUTOMATED TRADING PROJECT (COMP396) | 30 |

| Optional modules | Credits |
|---|---|
| COMPUTATIONAL GAME THEORY AND MECHANISM DESIGN (COMP326) | 15 |
| CORPORATE REPORTING AND ANALYSIS (ACFI302) | 15 |
| THE DIGITAL BUSINESS (EBUS301) | 15 |
| FINANCIAL REPORTING 2 (ACFI309) | 15 |

| Optional modules | Credits |
|---|---|
| BEHAVIOURAL FINANCE (ACFI311) | 15 |
| MULTI-AGENT SYSTEMS (COMP310) | 15 |
| OPTIMISATION (COMP331) | 15 |
| SOFTWARE ENGINEERING II (COMP319) | 15 |
| CLOUD COMPUTING FOR E-COMMERCE (COMP315) | 15 |
| COMMUNICATING COMPUTER SCIENCE (COMP335) | 15 |

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**Teaching and assessment**

## How you'll learn

Teaching is by a mix of formal lectures, small group tutorials and supervised laboratory-based practical sessions. Students also undertake individual and group projects. Key problem solving skills and employability skills, like presentation and teamwork skills, are developed throughout the programme.

## How you're assessed

The main modes of assessment are through a combination of coursework and examination. Depending on the modules taken you may encounter project work,

presentations (individual or group), and specific tests or tasks focused on solidifying learning outcomes.

## Liverpool Learning Framework

At Liverpool, we take a distinctive approach to education through the Liverpool Learning Framework. This means teaching that is engaging, inclusive and designed to help you succeed during your studies and beyond.

You'll develop specialist subject knowledge alongside the skills employers value most, including:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three Liverpool Hallmarks:

- Research-connected teaching - learning informed by the latest ideas and discoveries
- Active learning - taking part, applying knowledge and learning by doing
- Authentic assessment - assessments designed around real-world tasks and challenges

We also embed key priorities across our curriculum, including AI literacy, employability, and sustainability, helping you prepare for the future and make a positive impact in the world.

We're committed to creating a supportive and inclusive learning environment where every student can thrive.

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## Careers and employability

Liverpool's computer science graduates go onto well-paid graduate jobs and careers such as computer programmer, software developer, systems analyst, software engineer, technical consultant, and web designer.

Computer science graduates will enter a high-in-demand pool in the field with possible roles in:

- Computer programmers, web developers or software engineers
- Data scientists
- Artificial intelligence researchers
- Systems analysts
- Technical consultants.

Recent employers include:

- BAE Systems
- BT
- Guardian Media Group
- Royal Bank of Scotland
- Siemens
- Unilever.

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# Fees and funding

Your tuition fee covers almost everything, but you may have additional study costs to consider, such as books, specialist equipment or field trips.

### Tuition fees

#### UK fees (applies to Channel Islands, Isle of Man and Republic of Ireland)

Full-time place, per year - £9,790
Year in industry fee - £1,955
Year abroad fee - £1,465 (applies to year in China)

#### International fees

Full-time place, per year - £32,000
Year in industry fee - £1,955
Year abroad fee - £16,000 (applies to year in China)

The fees shown are for the academic year 2026/27. Please be advised that tuition fees may increase each year for both UK and international students. For UK students, this will be subject to the government's regulated fee limits.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support. Learn more about paying for your studies.

## Additional costs

We understand that budgeting for your time at university is important, and we want to make sure you understand any course-related costs that are not covered by your tuition fee. You can find information on the general and subject-specific costs you could expect to incur on our study costs webpage.

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# Entry requirements

The qualifications and exam results you'll need to apply for this course.

### A levels

AAB
in A levels including Maths or Computer Science. Mathematics (Pure), Mathematics (Pure and Applied), and Mathematics (Pure) and Statistics are acceptable. CCEA A level Software Systems Development and CCEA A level in Digital Technology (Northern Ireland) aren't acceptable subjects. We don't accept A level IT.

Applicants with the Extended Project Qualification (EPQ) are eligible for a reduction in grade requirements. For this course, the offer is **ABB** from A levels, with **A** in the EPQ including A level Mathematics or Computer Science.

You may automatically qualify for reduced entry requirements through our contextual offers scheme. Based on your personal circumstances, you may automatically qualify for up to a two-grade reduction in the entry requirements needed for this course. When you apply, we consider a range of factors – such as where you live – to assess if you're eligible for a grade reduction. You don't have to make an application for a grade reduction – we'll do all the work.

Find out more about how we make reduced grade offers.

If you don't meet the entry requirements, you may be able to complete a foundation year which would allow you to progress to this course.

Available foundation years:

- Computer Science (Foundation) (4 year route with Carmel College) BSc (Hons)

### T levels

You'll need T level Science or ICT, alongside A level Mathematics or Computer Science. T Level Science or ICT is accepted with an overall grade of Distinction to include the grade of Distinction in the specialism component and grade B in the core.

Applicants should contact us by completing the enquiry form on our website to discuss specific requirements in the core components and the occupational specialism.

### GCSE

Further Education requirements, in addition to Level 3 GCSE qualifications, must be met. GCSE grade minimum 4/C in English and 4/C in Mathematics.

**Subject requirements**

A level Mathematics or Computer Science is required. For applicants from England: for science A levels that include the separately graded practical endorsement, a "Pass" is required.

**BTEC Level 3 National Extended Certificate**

D in BTEC and AA in A Levels (to include either Mathematics or Computer Science).

IT and ICT are not relevant BTEC subjects and cannot be accepted in lieu of the required A level subjects.

**BTEC Level 3 Diploma**

DD in BTEC and A in A Level in Mathematics or Computer Science.

**BTEC Level 3 National Extended Diploma**

D*DD in a relevant diploma plus A level Maths or Computer Science grade B (GCSE Maths grade A/7 required if A level Mathematics not taken).

Relevant diplomas are:

- Computer Science
- Mathematics
- Engineering.

**International Baccalaureate**

34 points overall or 6,6,5 in 3 HL subjects including Mathematics/Computer Science.

IB Maths ‘Analysis and Approaches’ or ‘Applications and Interpretation’ pathways are acceptable at Higher Level as a Mathematical subject.

**Irish Leaving Certificate**

H1,H1,H2,H2,H2,H3, including H1 in Higher Mathematics or Computer Science. We also

require a minimum of H6 in Higher English.

**Scottish Higher/Advanced Higher**

Acceptable on same basis as A levels, or higher grades AAABB and Advanced Higher grade A in Maths or Computer Science.

**Welsh Baccalaureate Advanced**

Acceptable at grade B (with A levels AA including Mathematics or Computer Science).

**Cambridge Pre-U Diploma**

Principal subjects acceptable in lieu of A levels. D3 in Cambridge Pre U Principal Subject is accepted as equivalent to A-Level grade A M2 in Cambridge Pre U Principal Subject is accepted as equivalent to A-Level grade B Global Perspectives and Short Courses are not accepted.

**Access**

Pass Access with 36 Level 3 credits at Distinction (including 15 in Mathematical or Computer Science credits) and 9 Level 3 credits at Merit. Open Awards Access Diploma in Computing and Digital Technology isn't acceptable as there isn't enough relevant content.

**International qualifications**

Select your country or region to view specific entry requirements.

Many countries have a different education system to that of the UK, meaning your qualifications may not meet our direct entry requirements. Although there is no direct Foundation Certificate route to this course, completing a Foundation Certificate, such as that offered by the University of Liverpool International College, can guarantee you a place on a number of similar courses which may interest you.

## Alternative entry requirements

- If your qualification isn't listed here, or you're taking a combination of qualifications, contact us for advice
- Applications from mature students are welcome.

## English language requirements

You'll need to demonstrate competence in the use of English language, unless you're from a majority English speaking country.

We accept a variety of international language tests and country-specific qualifications.

International applicants who do not meet the minimum required standard of English language can complete one of our Pre-Sessional English courses to achieve the required level.

**IELTS**

6.0 overall, with no component below 5.5

**TOEFL iBT**

If you took a TOEFL test on or before 20 January 2026, you'll need 78 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. If you took a TOEFL test from 21 January 2026 onwards, when a new scoring system was introduced, you'll need 4 overall, with 4 or above in all components. TOEFL Home Edition not accepted.

**Duolingo English Test**

115 overall, with speaking, reading and writing not less than 105, and listening not below 100

**Pearson PTE Academic**

59 overall, with no component below 59

**LanguageCert Academic**

65 overall, with no skill below 60

**Cambridge IGCSE First Language English 0500**

Grade C overall, with a minimum of grade 2 in speaking and listening. Speaking and listening must be separately endorsed on the certificate.

**Cambridge IGCSE First Language English 0990**

Grade 4 overall, with Merit in speaking and listening

**Cambridge IGCSE Second Language English 0510/0511**

0510: Grade C overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0511: Grade C overall.

**Cambridge IGCSE Second Language English 0993/0991**

0993: Grade 5 overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0991: Grade 5 overall.

**Cambridge ESOL Level 2/3 Advanced**

169 overall, with no paper below 162

**International Baccalaureate English A: Literature or Language & Literature**

Grade 4 at Standard Level or grade 4 at Higher Level

**International Baccalaureate English B**

Grade 6 at Standard Level or grade 5 at Higher Level

## Pre-sessional English

Do you need to complete a Pre-sessional English course to meet the English language requirements for this course?

The length of Pre-sessional English course you'll need to take depends on your current level of English language ability.

## Pre-sessional English in detail

If you don’t meet our English language requirements, we can use your most recent IELTS score, or the equivalent score in selected other English language tests, to determine the length of Pre-sessional English course you require.

Use the table below to check the course length you're likely to require for your current English language ability and see whether the course is available on campus or online.

| Your most recent IELTS score | Pre-sessional English course length | On campus or online |
|---|---|---|
| 5.5 overall, with no component below 5.5 | 6 weeks | On campus or online |
| 5.5 overall, with no component below 5.0 | 10 weeks | On campus or online |
| 5.0 overall, with no component below 5.0 | 12 weeks | Online |
| 5.0 overall, with no component below 4.5 | 20 weeks | On campus |
| 4.5 overall, with no component below 4.5 | 30 weeks | On campus |
| 4.0 overall, with no component below 4.0 | 40 weeks | On campus |

If you’ve completed an alternative English language test to IELTS, we may be able to use this to assess your English language ability and determine the Pre-sessional English course length you require.

Please see our guide to Pre-sessional English entry requirements for IELTS 6.0 overall, with no component below 5.5, for further details.

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