



UNIVERSITY OF  
LIVERPOOL

BSc (Hons)

# Financial Computing

UCAS code GN34

## Entry requirements

A level: AAA

## Study mode

Full-time

## Duration

3 years

Apply by: **29 January 2025**

Starts on: **22 September 2025**

## 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.

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## 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.

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## 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
<u><a href="#">ANALYTIC TECHNIQUES FOR COMPUTER SCIENCE (COMP116)</a></u>	15
<u><a href="#">DESIGNING SYSTEMS FOR THE DIGITAL SOCIETY (COMP107)</a></u>	15
<u><a href="#">INTRODUCTION TO FINANCIAL ACCOUNTING (ACFI101)</a></u>	15
<u><a href="#">INTRODUCTION TO MANAGEMENT ACCOUNTING (ACFI102)</a></u>	15

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<b>Compulsory modules</b>	<b>Credits</b>
<u>INTRODUCTION TO FINANCE (ACFI103)</u>	15
<u>OBJECT-ORIENTED PROGRAMMING (COMP122)</u>	15
<u>PRINCIPLES OF MICROECONOMICS (ECON121)</u>	15

<b>Optional modules</b>	<b>Credits</b>
<u>INTRODUCTION TO PROGRAMMING (COMP101)</u>	15
<u>PROGRAMMING LANGUAGE PARADIGMS (COMP105)</u>	15

Programme details and modules listed are illustrative only and subject to change.

## 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 life.

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

## Modules

<b>Compulsory modules</b>	<b>Credits</b>
<u>COMPUTER-BASED TRADING IN FINANCIAL MARKETS (COMP226)</u>	15

<b>Compulsory modules</b>	<b>Credits</b>
<u>CORPORATE FINANCIAL MANAGEMENT FOR NON-SPECIALIST STUDENTS (ACFI213)</u>	15
<u>DATABASE DEVELOPMENT (COMP207)</u>	15
<u>GROUP SOFTWARE PROJECT (COMP208)</u>	15
<u>FINANCIAL REPORTING 1 (ACFI201)</u>	15
<u>SECURITIES MARKETS (ECON241)</u>	15
<u>SOFTWARE ENGINEERING I (COMP201)</u>	15

<b>Optional modules</b>	<b>Credits</b>
<u>ACCOUNTING THEORY (ACFI202)</u>	15
<u>BUSINESS IN THE GLOBAL ECONOMY (MKIB225)</u>	15
<u>COMPUTER AIDED SOFTWARE DEVELOPMENT (COMP285)</u>	7.5
<u>SCRIPTING LANGUAGES (COMP284)</u>	7.5

Programme details and modules listed are illustrative only and subject to change.

## **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

<b>Compulsory modules</b>	<b>Credits</b>
<u>FINANCIAL RISK MANAGEMENT (ACFI342)</u>	15
<u>INTRODUCTION TO COMPUTATIONAL GAME THEORY (COMP323)</u>	15
<u>BUSINESS FINANCE (ACFI304)</u>	15

  

<b>Optional modules</b>	<b>Credits</b>
<u>COMPUTATIONAL GAME THEORY AND MECHANISM DESIGN (COMP326)</u>	15
<u>CORPORATE REPORTING AND ANALYSIS (ACFI302)</u>	15
<u>THE DIGITAL BUSINESS (EBUS301)</u>	15
<u>FINANCIAL REPORTING 2 (ACFI309)</u>	15
<u>GLOBAL STRATEGIC MANAGEMENT (MKIB351)</u>	15
<u>MULTI-AGENT SYSTEMS (COMP310)</u>	15
<u>OPTIMISATION (COMP331)</u>	15
<u>SOFTWARE ENGINEERING II (COMP319)</u>	15

Programme details and modules listed are illustrative only and subject to change.

## 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 Hallmarks

We have a distinctive approach to education, the Liverpool Curriculum Framework, which focuses on research-connected teaching, active learning, and authentic assessment to ensure our students graduate as digitally fluent and confident global citizens.

The Liverpool Curriculum framework sets out our distinctive approach to education. Our teaching staff support our students to develop academic knowledge, skills, and understanding alongside our **graduate attributes**:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three **Liverpool Hallmarks**:

- Research-connected teaching
- Active learning
- Authentic assessment

All this is underpinned by our core value of **inclusivity** and commitment to providing a curriculum that is accessible to all students.

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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 - £9,535

Year in industry fee - £1,905

Year abroad fee - £1,430 (applies to year in China)

### International fees

Full-time place, per year - £29,900

Year in industry fee - £1,905

Year abroad fee - £14,950 (applies to year in China)

The tuition fees shown are correct for 2025/26 entry. Please note that the year abroad fee also applies to the year in China.

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.](#)

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## 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. This could include buying a laptop, books, or stationery.

Find out more about the [additional study costs](#) that may apply to this course.



# Entry requirements

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

AAA incl. A-level Maths or Computer Science. BTEC D\*D\*D\* plus A-level Maths or Computer Science. If A-level Maths isn't taken, require GCSE Maths Grade A (7) or above.

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## A levels

AAA including Maths or Computer Science

Applicants with the Extended Project Qualification (EPQ) are eligible for a reduction in grade requirements. For this course, the offer is **AAB** with **A** in the EPQ.

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 \(Hons\)](#)

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## T levels

T levels are not currently accepted.

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## GCSE

4/C in English and 4/C in Mathematics

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## Subject requirements

For applicants from England: For science A levels that include the separately graded practical endorsement, a "Pass" is required.

Applicants with the Extended Project Qualification (EPQ) are eligible for a reduction in grade requirements. For this course, the offer is AAB with an A in the EPQ.

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### **BTEC Level 3 National Extended Certificate**

Acceptable at grade Distinction\* (any subject) alongside AA at A level. A Levels must include Mathematics or Computer Science.

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### **BTEC Level 3 Diploma**

Acceptable at grade Distinction\* Distinction (any subject) alongside A at A level (Mathematics or Computer Science).

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### **BTEC Level 3 National Extended Diploma**

D\*D\*D\* plus A level Maths or Computer Science. If A level Maths isn't taken, require GCSE Maths Grade A (7) or above.

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### **International Baccalaureate**

36 overall including 5 in Higher Level Mathematics or Computer Science.

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### **Irish Leaving Certificate**

Irish Leaving Certificate: H1,H1,H2,H2,H2,H2 including H1 in Higher Maths. We also require a minimum of H6 in Higher English or O3 in Ordinary English

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### **Scottish Higher/Advanced Higher**

Acceptable on the same basis as A levels

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### **Welsh Baccalaureate Advanced**

Acceptable at grade A alongside AA at A level including Maths or Computer Science.

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### **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.

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## Access

Considered if taking a relevant subject. 45 Level 3 credits at Distinction, including 15 Level 3 credits in Mathematical or Computer Science subjects is required. GCSE English and Mathematics grade C/grade 4 or above also required.

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## International qualifications

Select your country or region to view specific entry requirements.

If you hold a bachelor's degree or equivalent, but don't meet our entry requirements, you could be eligible for a Pre-Master's course. This is offered on campus at the University of Liverpool International College, in partnership with Kaplan International Pathways. It's a specialist preparation course for postgraduate study, and when you pass the Pre-Master's at the required level with good attendance, you're guaranteed entry to a University of Liverpool master's degree.

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## 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.

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## IELTS

6.0 overall, with no component below 5.5

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**TOEFL iBT**

78 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. TOEFL Home Edition not accepted.

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**TOEFL Paper**

Grade 6 at Standard Level or grade 5 at Higher Level

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**Duolingo English Test**

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

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**Pearson PTE Academic**

59 overall, with no component below 59

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**LanguageCert Academic**

65 overall, with no skill below 60

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**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.

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**Cambridge IGCSE First Language English 0990**

Grade 4 overall, with Merit in speaking and listening

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**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.

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**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.

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**Cambridge ESOL Level 2/3 Advanced**

169 overall, with no paper below 162

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## LanguageCert

Grade 4 at Standard Level or grade 4 at Higher Level

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## 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.

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### 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
5.5 overall, with no component below 5.0	10 weeks	On campus and online options available
5.0 overall, with no component below 5.0	12 weeks	On campus and online options available

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Your most recent IELTS score	Pre-sessional English course length	On campus or 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.

## 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.

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