UNIVERSITY OF LIVERPOOL

BSc (Hons)

Artificial Intelligence

UCAS code G702

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

About this course

Artificial Intelligence (AI) is transforming the way we live, work and interact with the world. Our specialist BSc programme is designed to maximise future employment opportunities and equip you with the knowledge and skills needed to thrive in this fast-evolving field. Gain a thorough grounding in computer science and an extensive knowledge of the AI theories, practices and skills that are shaping our future.

Introduction

Artificial Intelligence is one of the most important and cutting-edge sub-fields in Computer Science. It's transforming industries from technology, robotics and finance to healthcare, creative and third sectors.

Shaped by our world-leading research in data science, machine learning, robotics and AI+, on this programme you'll learn the key facts, principles, and concepts of computer science, while developing specialist expertise in AI theories, methods, and applications. You'll develop knowledge of modern languages, tools and practices used in the specification, design, implementation and evaluation of both traditional and AI related computer-based systems.

You'll also explore the professional, ethical and legal considerations that shape the responsible use of technology. Working individually and as part of a development team, you'll have the opportunity to design and construct both traditional and AI related computer systems, while refining transferable skills such as information retrieval, project management, and independent learning.

Our goal is to develop highly-employable, innovative and responsible graduates. You'll graduate with a wide range of career opportunities and will be equipped with the skills, knowledge and experience to make real-world, positive impact.

At Liverpool we also offer an Artificial Intelligence pathway within our Computer Science BSc programme Computer Science BSc (Artificial Intelligence) (Hons). If you opt for this programme, you will graduate with the degree title Bachelor of Science with Honours in Computer Science (Artificial Intelligence).

This programme is also available as an option with a Year in Industry, Year in China or Year Abroad.

What you'll learn

- Knowledge and basic understanding of the essential facts, concepts, principles and theories relating to Computer Science in general and AI in particular
- How to recognise and critically analyse criteria and specifications appropriate to problems to be solved by computer, and how to plan innovative and AI strategies for their solution
- An understanding of the appropriate theory, practices, languages and tools that may be deployed for the specification, design, implementation and evaluation of both traditional and AI related computer-based systems
- An understanding of the professional, moral and ethical issues involved in the exploitation of computer technology, and the associated professional, ethical and legal practices
- How to specify, design and construct simple traditional and AI related computer-based systems
- The ability to participate in a development team, with an awareness of the different roles within a team and different ways of organising teams
- Effective information retrieval skills
- The ability to manage your own learning and development, and time management and organisational skills

- An appreciation of Computer Science and AI related practice as an emerging and developing discipline.

Accreditation

This programme is pending accreditation by BCS, The Chartered Institute for IT, the leading professional body for those working in IT. It's continually updated to reflect new technologies and trends.

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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 is all about building your foundational knowledge. You'll study either Introduction to Programming (COMP101) or Programming Language Paradigms (COMP105), depending on prior programming experience.

Modules

Compulsory modules	Credits
DESIGNING SYSTEMS FOR THE DIGITAL SOCIETY (COMP107)	15
INTRODUCTION TO PROGRAMMING (COMP101)	15
PROGRAMMING LANGUAGE PARADIGMS (COMP105)	15
COMPUTER SYSTEMS (COMP124)	15
DATA STRUCTURES AND ALGORITHMS (COMP108)	15
OBJECT-ORIENTED PROGRAMMING (COMP122)	15

Programme details and modules listed are illustrative only and subject to change. This course has been updated for 2027 entry as part of a review of all our programmes. This review has considered refining study pathways, strengthening links with employers, integrating generative AI, developing students' research skills, and enhancing alignment with our research strengths. Please note, as at all times, the University reserves the right to make reasonable changes, including to content, entry

requirements, or fees, or to discontinue programmes. Applicants will be informed of any significant change.

Year two

In year two, you have a list of optional modules to choose from.

You must select either 30 or 45 credits in semester two. Either Software Engineering in Practice (COMP290) or Group Software Project (COMP208) must be selected along with Complexity of Algorithms (COMP202).

Modules

Compulsory modules	Credits
ADVANCED ARTIFICIAL INTELLIGENCE (COMP219)	15
DATABASE DEVELOPMENT (COMP207)	15
SOFTWARE ENGINEERING I (COMP201)	15
GROUP SOFTWARE PROJECT (COMP208)	15
COMPLEXITY OF ALGORITHMS (COMP202)	15

Optional modules	Credits
INTRODUCTION TO DATA SCIENCE (COMP229)	15
APP DEVELOPMENT (COMP228)	15
PRINCIPLES OF COMPUTER GAMES DESIGN AND IMPLEMENTATION (COMP222)	15
COMPUTER-BASED TRADING IN FINANCIAL MARKETS (COMP226)	15

Optional modules	Credits
CYBER SECURITY (COMP232)	15
INTRODUCTION TO THEORY OF COMPUTATION (COMP218)	15

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Year three

In year three, you'll complete your Computer Science Project (COMP390) and choose from the list of optional modules.

If you wish to take Communicating Computer Science (COMP335), you'll undergo an interview with the module co-ordinator before being selected.

Cyberpsychology: Human-Computer Interaction (PSYC327) is an optional module managed by the Department of Psychology. This module has a capacity limit, so spaces will be allocated on a first-come, first-served basis.

Modules

Compulsory modules	Credits
HONOURS YEAR COMPUTER SCIENCE PROJECT (COMP390)	30
DATA MINING AND VISUALISATION (COMP337)	15

Optional modules	Credits
AUTONOMOUS MOBILE ROBOTICS (COMP329)	15
BIG DATA ANALYTICS (COMP336)	15
INTRODUCTION TO COMPUTATIONAL GAME THEORY (COMP323)	15
KNOWLEDGE REPRESENTATION AND REASONING (COMP304)	15
OPTIMISATION (COMP331)	15
FORMAL METHODS (COMP313)	15
ONTOLOGIES AND SEMANTIC WEB (COMP318)	15
NETWORK MINING AND ANALYSIS (COMP324)	15
HIGH PERFORMANCE COMPUTING (COMP328)	15
COMMUNICATING COMPUTER SCIENCE (COMP335)	15
ROBOT PERCEPTION AND MANIPULATION (COMP341)	15
ADVANCED TOPICS IN COMPUTER GAME DEVELOPMENT (COMP342)	15
MUSIC INTELLIGENCE (COMP346)	15
CYBERPSYCHOLOGY-HUMAN COMPUTER INTERACTION (PSYC327)	15

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Teaching and assessment

How you'll learn

Teaching is 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, but depending on the modules taken you may encounter project work, presentations (individual or group), and specific tests/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

There's a growing demand for AI professionals in most sectors. Graduating with an Artificial Intelligence BSc degree from Liverpool will equip you with the knowledge, skills and confidence to explore a vast range of job opportunities across the globe, or to pursue further education in this field.

The University of Liverpool is one of the most targeted universities by top employers, according to The Graduate Market 2024, High Fliers Research. This means our graduates are in demand for employment and sought after by top employers worldwide.

Graduates find works in roles in fields not limited to:

- Artificial Intelligence Engineer
- Data Analyst
- Senior Data Scientist
- Deep Learning Engineer
- Machine Learning Engineer
- Transcriptionist
- Cloud AI Engineer
- Logistic Engineer
- Cybersecurity Specialist
- Business Intelligence Developer
- Robotics Engineer
- AI Research Scientist
- Big Data Engineer
- Technology Risk Manager.

Recent employers of our graduates include:

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

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Fees and funding

Your tuition fees, funding your studies, and other costs to consider.

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 Mathematics or Computer Science.

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

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

Your most recent IELTS score	Pre-sessional English course length	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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