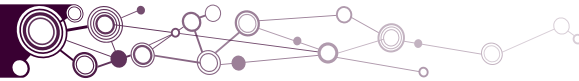




**CITY UNIVERSITY
LONDON**

The University for business and the professions

Computing and Information Technology **Undergraduate courses**



www.soi.city.ac.uk/ugcourses



City University London – founded in 1894 as the Northampton Institute and awarded full university status in 1966 – has a reputation for excellence in professional education.

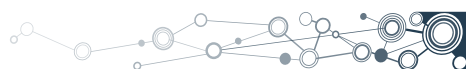
We pride ourselves on the close contacts we have built with leading professional institutions and with business and industry, and have established one of the best graduate employment records in the country.

City has special links with the City of London. The Chancellor is the Lord Mayor of London and our degree ceremonies are held at the historic Guildhall.

Our professional links are reflected in the teaching and research staff at City. Many academics here have professional qualifications and experience as well as high academic standing.

We are dedicated to providing high-quality education that meets the needs of our students and their employers, and to developing and enhancing research that has acknowledged standards of excellence.

With a highly diverse student population drawn from over 150 countries, City is a cosmopolitan university. We are committed to attracting, and supporting, high quality and talented students, irrespective of social or national background. The University celebrates and values its thriving international academic links.



Department of Computing – Undergraduate courses

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As you read this, you are in the process of making one of the most important decisions of your life: which university course to apply for.

This decision is going to affect not only your immediate future as a student, but also your working life, as the reputation and quality of education at the university you choose will determine your employment prospects. So it is important to have as much information as possible when making your choice.

This course brochure is intended to help you decide whether a computing degree at City University London is the right choice for you. We are proud to present to you six regularly updated, and challenging courses, which place our graduates in a very strong

position in their future careers. Our graduate employment rate testifies to the value employers place on the knowledge and skills we work with you to develop.

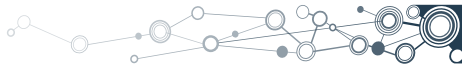
At this stage in your career, our aim is to help you make the right choice. We hope you find this guide useful, and we will be very happy to answer any further questions you have.

Whatever choice you make now, we hope that you enjoy your studies and wish you success and prosperity in your university education and career.

Chris Smart

Assistant Dean (Education)
School of Informatics





Six computing degrees

City offers you a wide choice of exciting, distinctive, and professional degrees, delivered in purpose-built new premises with specialist teaching rooms and laboratories. All our courses will equip you for fast-track careers in the IT industry, commerce, research and consultancy.

- BSc (Hons) Business Computing Systems
- BSc (Hons) Computer Science
- BSc (Hons) Computer Science with Artificial Intelligence
- BSc (Hons) Computer Science with Games Technology
- BSc (Hons) Information Systems
- BSc (Hons) Software Engineering

You will gain expertise in the key computing technologies, analysis and design methods, and programming methods currently employed in the IT industry. You will also be exposed to the state-of-the-art research that is poised to transform the IT industry over the next decade. Our degrees have been designed by members of staff with extensive academic and professional experience.

At the same time, you will gain understanding of the enduring principles, concepts, teamwork and communication skills which will enable you to adapt effectively in a rapidly changing industry.

Our expertise allows us to offer a broad range of degrees that support our students in exploring their interests, from applied courses, such as Business Computing Systems, to more technical courses, such as Computer Science and Software Engineering, to a number of specialist degrees, for example Computer Science with Games Technology. The degrees are all interlinked and students have a great deal of freedom to choose their own programme. We offer a wide selection of electives covering topics as diverse as e-commerce, business object technology, IT security and software agents.

We recognise that you want a career when you graduate, and combine academically rigorous courses that explicitly relate theory to practice with essential transferable skills such as communication and teamworking. We aim to help you become a well-rounded graduate who can take a leading role in the highly competitive IT profession.



Open days

We offer a number of pre and post-application open days and afternoons so you can visit the University and find out more about our degrees, placements, excellent facilities, and meet course tutors and current students.

Book online at:

www soi.city.ac.uk/ugdetails/visitus

Eight reasons to study computing at City

04



01 Outstanding career prospects

City computing graduates are highly regarded in the IT industry and many secure employment with prestigious companies after graduation. The close involvement of industry in the design of courses ensures an accelerated start at the beginning of your career, as well as the vital skills and knowledge required for developing your professional career.

02 Flexibility and choice

Our degree courses share a common first year of core skills, so that independent of which computing degree you apply for, you may change to another computing degree at the end of your first year. This allows you the time to make an informed choice about which degree you want to study, and exposes you to all the different aspects of computing before you select your own specialist programme.

03 Professional recognition

Your degree benefits from recognition by the British Computer Society, exempting you from their professional examinations and offering a pathway to Chartered status – the highest level of accreditation available for honours degree students.



04 International reputation

Our academic research in artificial intelligence, information management and human-computer interaction is respected internationally. City University London is also a European centre of excellence for software engineering research. Our research directly informs teaching, ensuring that the School's courses are as up to date as possible, and that you are taught by experts.

05 Excellent industrial placements

We have offered one-year placements in the IT industry for more than 20 years, enhancing the employability of our graduates. We are highly successful in helping students secure paid placement employment in sought-after IT companies.

06 Professional Pathway – unique to City

The Professional Pathway is an innovative combination of paid placement employment with part-time study after good performance in the first year of your degree. It offers accelerated entry into the IT profession as well as improving your finances during degree study.

07 New purpose-built premises

The Department of Computing is housed in brand-new purpose-built premises in historic College Building at the main University site. Students benefit from specialist teaching facilities, including SAP Product lab and the Human Computer Interaction lab supported by The Vodafone UK Foundation.

08 Central Location

City University London is located close to the City of London, in a vibrant cultural area of central London which includes the Barbican Centre and Sadler's Wells theatre as well as numerous cafes and restaurants. Transport links to other parts of central London, including the West End, are excellent.





Our graduate employment record is first rate, and we have an excellent reputation in the IT industry.

When you graduate with a computing degree from City you will find yourself in demand from organisations ranging from blue chip industry giants to dynamic start-up companies. Employers place great value on the professional education and quality of our graduates, recognising their intellectual skills, professionalism, industry experience and their ability to relate theory to practical problems.

City University London ranks tenth amongst the UK's top universities offering graduates the best prospects following their studies, according to The Times Complete University Guide 2011.

Graduate employers include:

- Accenture
- BAE Systems
- British Airways
- British Telecom
- Cap Gemini
- Credit Suisse
- Deutsche Bank
- EDS
- Hewlett Packard
- IBM
- Logica
- Lucent Technologies
- Merrill Lynch
- Metropolitan Police
- Microsoft
- Nortel
- Oracle
- PA Consulting
- Reuters
- SEMA
- Siemens
- Unisys
- Xerox

Why not continue your education with us after you graduate?

We offer a wide range of postgraduate degrees in computing-related subjects. We offer bursaries for City University London students and a wide range of school, industry and professional associate scholarships.



Cisillia Tay

“City prepared me for the cut and thrust of the high technology business world. The solid foundation ensured that I can take technology and make it into the right business solutions that work every time; invaluable in my role as Projects Director.”



Further details

Our degrees are constantly changing to reflect trends in the industry and our most recent research. The current description of our courses and the modules you can take can be found on: www soi.city.ac.uk/ugcourses

Keshava Chandratheva

Application Support, Vanco Plc

"Studying as an undergraduate at City was a very worthwhile investment and provided a great combination of work experience plus a fantastic social life. The inclusion of industrial training opportunities and the Professional Pathway scheme were the strong points in deciding which central London university to spend four quality years at."

Our degrees are challenging, intensive and require commitment and motivation. In return you will receive a thorough, interesting and well-regarded education taught by highly-motivated experts. This will give you an excellent start to your career in the IT industry.

Course structure

The structure of your degree is based around three parts, each corresponding to one year of a three-year degree. Commonality is emphasised as far as possible, allowing you maximum flexibility to change your degree course once registered.

A one-year placement can be taken between the second and final year. Alternatively, you can choose the Professional Pathway route, where Parts II and III are spread over three years whilst you work part time on a placement – see the section on Placements and the Professional Pathway for details.



Part I: Foundations

You will gain a firm foundation in computing covering topics such as programming, software engineering, computer architecture, databases and the mathematics needed to understand and model computer systems. Communication and business skills, essential for a successful career in IT, are also covered.

We offer a common first year for all our courses, allowing you ample time to make an informed choice about which computing degree to study.

Part II: Core knowledge and skills

You will learn the core knowledge and skills needed in the IT profession, including topics such as object-oriented analysis and design, networking and human-computer interaction. Your development as an IT professional is also addressed in a module on professional issues and research methods.

A team project, a quarter of your second year, plays an important role in developing your teamworking skills in a software development environment.

You will also study topics relevant to your specialism, such as data structures and algorithms for computer science, and organisational behaviour for business computing; around a quarter of your second year is spent on developing your specialism.

Part III: Advanced topics

The centrepiece of the final year is your individual project; this will demonstrate to employers that you can apply your knowledge and devise a novel solution to a problem. Your project may be undertaken in conjunction with one of our research groups in artificial intelligence, human-computer interaction or software engineering. Alternatively, you may undertake your project with the company you worked for whilst on placement.

You will also take an advanced module in the area of specialisation of your degree, plus four elective modules from a wide selection of computing topics.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

Further details

Examples of modules and electives can be found overleaf.

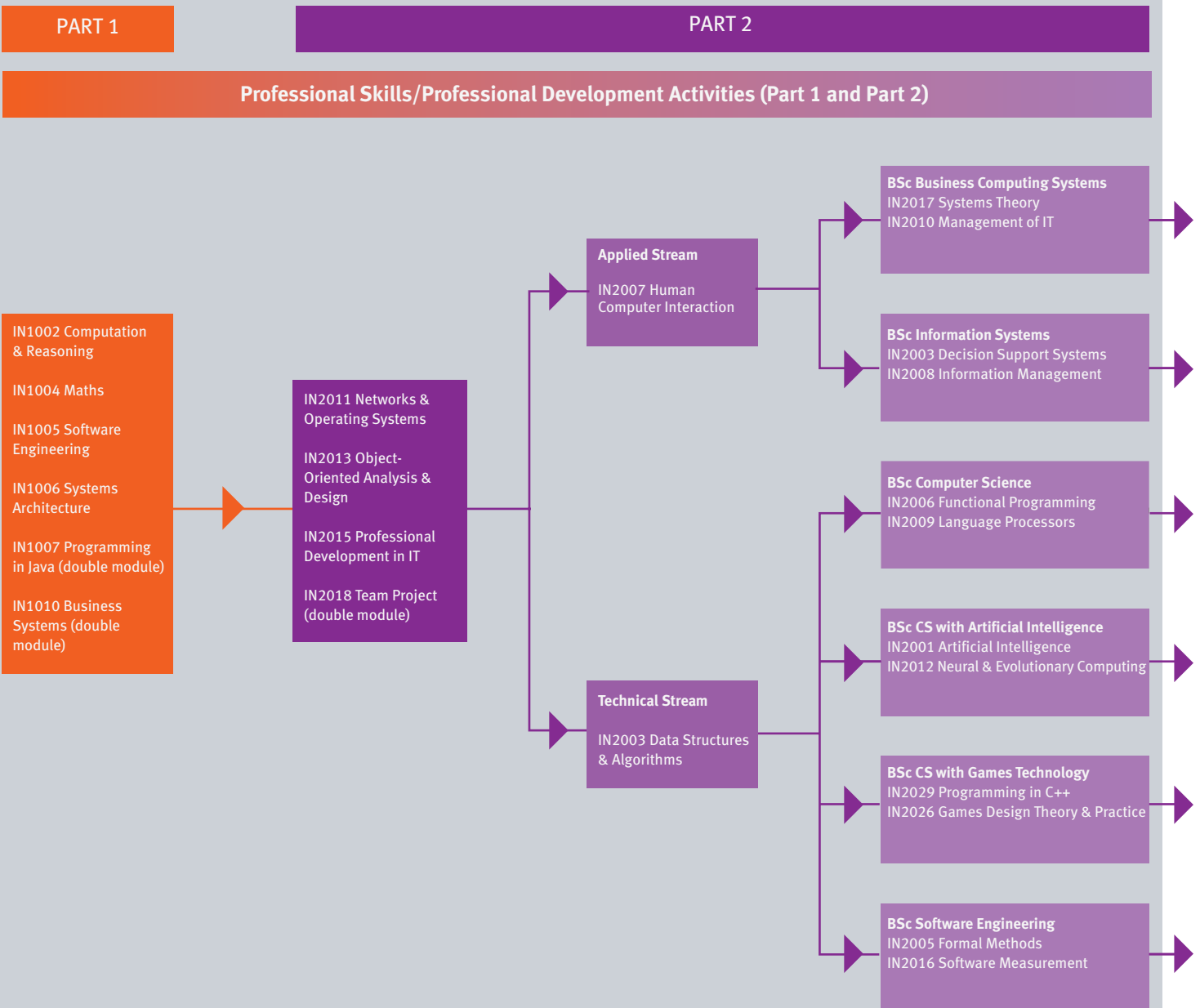


Examples of modules and electives



School of Informatics

Undergraduate Programme Structure (examples are from academic year 2010/11 and are subject to change)



Important

This is a diagrammatic representation of degree paths. It does **not** show the chronological sequence of modules. Students must choose their degree path before entering Part 2.

Module choices

Part 1 and Part 2 Modules are compulsory. Part 3 has one compulsory taught module and a compulsory individual project. Students also choose 4 elective modules subject to the following restrictions:

- they have not taken the module in Part 2;
- their choices include no more than two IN2*** modules;
- any module specific pre-requisites are met;
- timetabling may constrain module choices.

Students are encouraged to take the electives recommended for their degree.

Industrial placements

Industrial Placements are taken between Parts 2 and 3. Industrial Placements are compulsory for the Business Computing Systems and Software Engineering degrees, and are optional for other degrees.

Examples of modules and electives



PART 3		
	Recommended electives	Elective list
<p>→ IN3008 Requirements Engineering IN3007 Individual Project (treble module)</p>	<p>Business Computing Systems IN3003 Business Engineering with ERP Solutions IN3024 Entrepreneurship in IT IN3008 Electronic Commerce</p>	<p>IN2001 Artificial Intelligence IN2002 Data Structures & Algorithms IN2003 Decision Support Systems IN2004 Distributed Systems IN2005 Formal Methods IN2006 Functional Programming IN2007 Human Computer Interaction IN2008 Information Management IN2009 Language Processors IN2010 Management of IT IN2016 Software Measurement IN2017 Systems Theory IN2026 Games Design, Theory & Practice IN2029 Programming in C++ IN3001 Advanced Databases IN3002 Advanced HCI IN3003 Business Engineering with ERP IN3004 Business Object Technology IN3005 Computer Graphics IN3008 Electronic Commerce IN3010 Health Informatics IN3011 Introduction to Data Mining IN3012 IT Security IN3013 OO Programming in C++ IN3014 Management of IT Strategy IN3015 Requirements Engineering IN3016 Software Agents IN3017 Theory of Computation IN3019 Bioinformatics IN3024 Entrepreneurship in IT IN3026 Advanced Games Design & Theory</p>
<p>→ IN3012 IT Security IN3007 Individual Project (treble module)</p>	<p>Information Systems IN3002 Advanced HCI IN3011 Introduction to Data Mining</p>	
<p>→ IN3017 Theory of Computation IN3007 Individual Project (treble module)</p>	<p>Computer Science IN2029 Programming in C++ (HE2) IN3011 Introduction to Data Mining IN3016 Software Agents</p>	
<p>→ IN3016 Software Agents IN3007 Individual Project (treble module)</p>	<p>Computer Science with Artificial Intelligence IN3011 Introduction to Data Mining IN3017 Theory of Computation</p>	
<p>→ IN3026 Advanced Games Design IN3007 Individual Project (treble module)</p>	<p>Computer Science with Games Technology IN2006 Functional Programming (HE2) IN3016 Software Agents</p>	
<p>→ IN3015 Requirements Engineering IN3007 Individual Project (treble module)</p>	<p>Software Engineering IN2007 HCI IN3003 Business Engineering with ERP Solutions IN3012 IT Security</p>	

Placements and the Professional Pathway

10



Earn while you learn

As a computing student at City you will have an outstanding opportunity to gain practical experience alongside your studies. Our placement schemes give you the chance to see for yourself how the technologies you are learning about are used in organisations. A placement will develop your technical skills and business knowledge. It will also help you understand the IT industry and learn about the different career paths available.

Taking a placement will significantly improve your career prospects. You can expect to gain marketable skills, achieve better marks in your degree, and may well receive a job offer from your placement employer before you graduate.

We offer two routes by which you may gain work experience as part of your degree: a one-year placement and our innovative Professional Pathway scheme, which enables you to combine placement employment (and earnings) with your studies.

Both options are available with all our computing degree courses.

Sarah Ancelotti, Computer Science with Artificial Intelligence

“When I learned about the Professional Pathway route that is available to City University students, I couldn’t believe my luck! As a mature student, it is the best mode of study one could possibly hope for, and I obviously didn’t waste time: I jumped on-board at the end of the first year. I began as Junior Web Developer for Cass Business School and now I’m a Web Developer and Content Manager at Student Recruitment Media.”





One-year placements

One-year placements are taken after you have successfully completed the second year of study. You undertake twelve months' work between your second and final year at university. You then return to City to finish your degree after the placement. Each year, a number of students gain graduate employment directly from their placement employer.

Professional Pathway

As a Professional Pathway student you take the same course content and exams as full-time students, but over a longer period. You attend the University for one day per week, for 45 weeks of the year, while working four days a week. You generally attend lectures and most other course components with full-time students.

There are three entry points for the scheme: after the first year of study; after the second year of study; after completing a one-year placement. The Professional Pathway takes four years in total if you join at the end of the first year.

How do I get a placement?

Your preparation for securing a placement starts as soon as you arrive. We begin by teaching you effective communication skills, as well as helping you prepare your CV and to practise for interviews and psychometric tests. Later on, our dedicated placements service will keep you informed of placement opportunities and help you with the application process. City has extensive experience in helping you secure placement employment in the IT industry, and our reputation and strong links with the IT industry count heavily in your favour.

What happens on placement?

Once on placement you will perform responsible work that will extend your knowledge and let you show future employers what you can achieve. You might choose to work in a large IT department with a project team, or in a small organisation alongside user staff. You are likely to perform a range of tasks, for example, programming, user support, systems investigation, analysis and design, documentation, testing, use of packages, data collection or help-desk work. Each placement is unique, but we ensure that you are provided with a planned sequence of learning opportunities and industrial training.

External recognition

The high standard of City placements is recognised through a professional development scheme approved by the British Computer Society. This gives you a framework for career development planning, which we help you with. Your validated record, demonstrating competence in a range of tasks, will provide you with evidence of experience you can use when applying for jobs.

On graduation, you are able to apply for professional British Computer Society membership. Professional Pathway students may apply for professional membership of the British Computer Society as soon as they graduate on the basis of the competencies acquired on placement.

Throughout your course you will be provided with opportunities for personal and professional development. Your achievements will be recorded on a Certificate of Graduate Professional Experience which shows employers that you have achieved nationally recognised standards of competence in applying IT in the workplace.

Your placement counts

If you so choose, your placement marks can substitute for the equivalent number of taught module credits - and, therefore, count towards your final degree mark.

Overseas students

Overseas students do not need work permits for placement work where the placement is a requirement of their course. The Home Office allows overseas students to take placement employment on the Professional Pathway scheme without needing a work permit, and without jeopardising their student visa status.



Kristina Mansurova, Software Engineering

"Thanks to the Professional Pathway scheme I have gained a valuable experience through working as a Java Developer in a Software Development company. This placement allowed the skills I had learned in theory to be applied in practice in a working environment and has provided the foundation for my personal development. I enjoyed this experience a lot and firmly believe that this will increase my employability and widen my career opportunities once I have graduated."

Professional development for your career

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A unique approach to professional development

Ask any successful leader what it takes to reach the top and they will start talking about people skills, communication skills, and teamwork.

Ask any employer what they look for in a graduate and they will include the ability to plan, organise themselves, and a professional attitude.

Integrated within our undergraduate programme are workshops, tutorials and skills sessions specifically for you to develop those skills that are most valued by employers.



Key features are:

- Your own personal development tutor to discuss and advise you on how to develop your professional skills
- Personal development planning workshops to help you plan your learning and skills development towards your personal goals
- The opportunity to gain industry recognised qualifications, such as Sun Java Certified Programmer and Microsoft Certificates, with support from industry professionals, to give you a head start applying for placements and graduate jobs
- Professional skills, including team-working, communication, project and self-management
- Employability skills enhancement to help you understand more about recruitment techniques and how to evidence your achievements and abilities, equipping you with the skills you need to build your CV and secure a placement, and later, a graduate role
- A Professional Placement scheme that supports your learning in the workplace through career development plans related to industry competencies and roles, as identified in the Skills Framework for the Information Age which is supported by the British Computer Society and e-skills UK.

Milan Rupareila, Business Computing Systems

“Preparation work through City University London helped secure my placement as they helped me develop my CV, along with giving me good advice on interviews. They showed me how I can plan and organise all my personal and professional goals.”



With our Business Computing Systems degree course you will gain:

- The technical and managerial background to implement computer solutions to business challenges.
- The skills to design computer systems that meet business needs.
- Paid professional experience in the IT industry.

This degree is suitable for you if:

- You want to build the businesses of tomorrow with computer technology.
- You have the breadth of mind to tackle both computer and management science.
- You want to enter the graduate marketplace with professional experience under your belt.



Businesses need computing professionals with both technical skills and business knowledge.

A degree in Business Computing Systems from City will help you enter a career as a computing professional for tomorrow's business.

Whilst at City, you will learn to analyse organisational problems and design appropriate IT solutions. You will develop commercially valuable skills in our laboratories and work with colleagues on business-related software projects. You will spend time in industry gaining experience and getting paid for it. For your project, you can work with an organisation to develop real-world business solutions.

Topics covered include 'systems theory' which provides the tools to analyse organisational systems. The development of IT strategies as well as techniques for risk assessment and methods for operations management are also covered. Electronic commerce in its various forms is explored in-depth to develop an understanding of how computer-based systems are changing the very nature of many industries and businesses.

As a Business Computing Systems graduate, you can expect to find employment improving the way organisations operate through the innovative use of IT. Your career can encompass designing business-critical computer systems, providing consultancy on computer development, or a managerial role with responsibility for an organisation's computing resources.

This degree is one of the longest running of its kind, benefiting from City's excellence in business and computing education. Industrial experience is an essential part of this four-year degree, either as a one-year placement or with our Professional Pathway scheme.

Applicants should note that this course is primarily technical in nature, and is not suitable for those seeking a business major.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

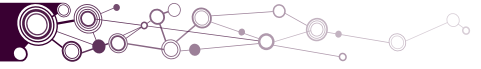
Kevin Lim Business Development Manager, Barclays Bank

"When deciding which university to choose I found the atmosphere at City to be very friendly compared with other universities that I visited and I liked the flexibility of being able to choose the modules that were of particular interest to me."

Computer Science

Are you interested in how software really works?

14



Computer science focuses on investigating how computer software works and how it can be used to solve real-world problems.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

A degree in Computer Science from City will provide you with a strong, broad-based education in computing as a scientific and technological discipline.

Whilst at City, you will acquire expertise in a wide variety of technologies combined with an in-depth understanding of the principles and theories that underpin it all. You will learn commercially valuable skills and work with our internationally renowned research groups learning the latest developments in computer science.

This course has a specialist focus on the underlying technology and principles of programming, covering topics such as a functional programming and compilers, supported by our research group in Programming Languages and Systems. Also, the course provides coverage of the Theory of Computation to explore the limits of what computers can and cannot do and why.

As a Computer Science graduate, your understanding of the fundamental concepts and your ability to apply these to produce innovative technical solutions will be highly prized. Your degree will prepare you for roles in programming and software development, as well as research-based careers in the IT industry and higher degrees, such as an MSc or a PhD.

This degree is available as a three-year full-time course, or four years with either a one-year placement or our Professional Pathway scheme.

With our degree in Computer Science you will gain:

- An appreciation of the foundations of computation.
- An understanding of the structure of programming languages.
- The skills to put these concepts and technologies into practice.

This degree is suitable for you if:

- You have a strong interest in software technologies and you want to know how they work, how to build them, and how to use them.
- You are looking for a career in which a comprehensive grounding in computing will give you the advantage.
- You want the fundamental knowledge and skills to keep up to date in a field in which rapid and accelerating change is the rule rather than the exception.



All degrees benefit from recognition by the British Computer Society, which exempts you from their professional examinations and offers a pathway to Chartered status.

Computer Science with Artificial Intelligence

Would you like to develop software that can reason and act intelligently?



Our degree in Computer Science with Artificial Intelligence offers:

- An excellent education in computing and artificial intelligence (AI).
- Knowledge of practical AI technologies such as expert systems and software agents.
- The ability to apply these concepts and technologies to real-world problems.

This degree is suitable for you if:

- You want to be active in the development of a new generation of computer systems which use intelligent behaviours to solve complex problems.
- You have an interest in AI technologies and you want to know how they work, how to build them, and how to use them.
- You want to be taught by members of a dynamic AI research group.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

The next generation of industrial-strength software applications will need the ability to make effective intelligent decisions.

A degree in Computer Science with Artificial Intelligence from City combines an education in computing with a focus on the principles, design and development of intelligent computer systems.

Whilst at City, you will become knowledgeable in a variety of computing and AI technologies and develop the ability to apply this knowledge in an industrial context. You will learn commercially valuable technical and transferable skills, develop software in teams, and work with our highly successful AI research teams.

The focus on intelligent systems is provided by coverage that introduces the basic AI concepts of knowledge representation and search, how logic underpins this, and the application of this to areas such as planning and expert systems. The AI programming language Prolog is also covered.

Nature-inspired methods that use metaphors from the human brain (neural networks), and biological evolution (genetic algorithms) are taught directly from City's research. In addition, the concepts and tools behind how software agents can be built that can learn, react and act independently is covered, again drawn from City's research in this area.

As a Computer Science with Artificial Intelligence graduate, your specialist expertise and ability to devise innovative AI-based solutions to complex problems will be in high demand. Your degree will prepare you for a career as a technical specialist in either business or industrial research laboratories or for research degrees, such as an MSc or a PhD.

This degree is available as a three-year full-time course, or four years with either a one-year placement or our Professional Pathway scheme.



We offer a number of pre- and post-application open days and afternoons so you can visit the University and find out more about our degrees, placements, excellent facilities, and meet course tutors and current students.

Book online at:
www soi.city.ac.uk/ugdetails/visitus

Computer Science with Games Technology

Do you want a career in computer games?

16



Our degree in Computer Science with Games Technology offers:

- Specialist skills for building computer games software.
- Advanced knowledge of games theory, graphics and games design.
- Leading-edge computer programming expertise.

This degree is suitable for you if:

- You like computer programming and gaming.
- You can apply your imagination to complex problems.
- You want to work in a dynamic and successful part of British industry.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

The computer games industry needs graduates with strong technical skills and a flair for creative design.

This degree provides technical games-building skills, as well as a more general computer science education.

A degree in Computer Science with Games Technology from City University London will help you develop your career in an exciting and dynamic industry. A graduate from this course will be equipped with the skills to enter the computer games industry, be able to adapt to the frequent changes in the world of computing, and engineer solutions to real-world and gaming problems.

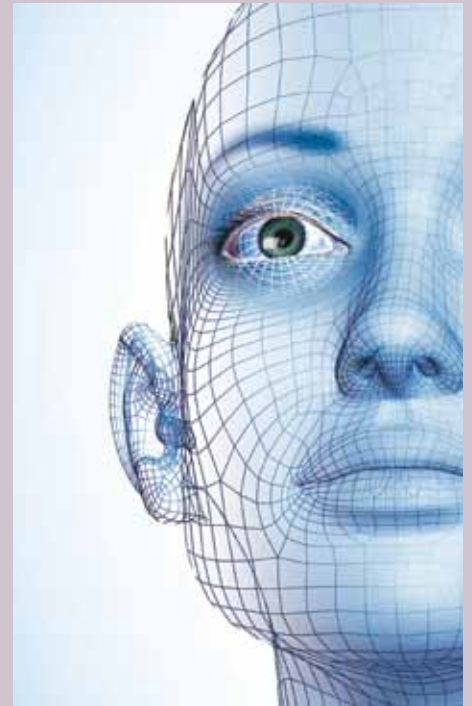
Whilst at City, you will become proficient in a broad range of programming languages and software design techniques, as well as expert in computer games programming, software and technologies. You will develop commercially valuable skills in our computing laboratories and work with our research groups.

Topics covered include:

- Game engine architectures
- The games development process
- 2D and 3D graphics
- Game physics and sound
- Scripting
- NPCs and game AI
- Programming in C++

As a Computer Science with Games Technology graduate you will already have much of the technical expertise sought after by companies in the computer games industry. Your broad knowledge of computer science and sophisticated programming skills will make you attractive to employers in other industries too.

This degree is available as a three-year full-time course, or four years with either a one-year placement or our Professional Pathway scheme.



James Mitchell

“My ambition after graduating is to work as a games developer in the computer games industry. I chose this course as it has the right mix of games-development skills along with a strong foundation in computer science, which will help me succeed in becoming what I want to be.”



With our Information Systems degree course you will gain:

- The technical knowledge to use and apply computer technologies in industry.
- The skills to design and manage innovative information systems.
- Expertise in high demand areas of the computing industry, such as electronic commerce and information security.

This degree is suitable for you if:

- You want a creative role in developing future innovative IT applications.
- You have the determination to see technical projects through to the end.
- You want a head start in your career as an information systems professional.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

Building information systems for today's information age requires these qualities and more.

Today's information age has an ever-increasing need for information systems and graduates who can understand and use them.

A degree in Information Systems from City will help you develop your career as an information systems professional.

Whilst at City, you will learn to construct software and design information systems to create information-rich working environments. You will develop commercially valuable skills in our computing laboratories and work with colleagues on collaborative software projects. For your final year project, you can work with our internationally renowned research centres.

Topics covered include systems for supporting decision making and information management. Techniques for internet and information search are covered, and methods for securing information systems from unauthorised access are studied.

As an Information Systems graduate, you can expect to find employment designing, building and managing information systems. Your degree prepares you for a career that can encompass a technical role, leading teams on the largest software projects, or a managerial role with responsibility for computerised information services.

This degree is available as a three-year full-time course, or four years with either a one-year placement or our Professional Pathway scheme.



Michael Anderson Business Analyst, Capita

"City University definitely equipped me with the necessary skills to progress my career quickly. Within only my first year of employment I was able to contribute significantly to a number of major IT projects using both the technical and interpersonal skills I'd acquired."

Software Engineering

Are you interested in programming and software development?

18



Software development is a central activity in the IT industry and there is demand for computing professionals who can develop dependable software systems to deadline and within budget.

A common first year syllabus enables you to make your final choice of degree at the end of your first year.

A degree in Software Engineering provides specialist focus on the programming and development of large, complex software, with an emphasis given to systems in which failure may involve significant financial loss, or even loss of life.

You will graduate with expertise in a variety of computing technologies including specialist methods and tools for implementing mission-critical software. You will be armed with real industrial experience and the skills needed to communicate your knowledge to non-technical personnel and clients. Most importantly you will gain paid experience of real industrial software development projects.

Topics covered include software measurement that allows rigorous measurement and management of the quality of software, and formal methods to prove whether or not a program will work using mathematics. City's research strengths in software engineering feed into this coverage as well as advanced topics such as Requirements Engineering.

As a Software Engineering graduate, you will find employment implementing dependable computer systems as part of a software development team. Your transferable skills, expertise and experience in software development will be highly prized in the IT industry.

As a successful software engineer, experience of real, large-scale system development is essential. Therefore, an industry-based component, either as an industrial placement year or with our Professional Pathway scheme, is part of an integrated four-year course.

With our Software Engineering degree course you will gain:

- Essential skills in programming and software development.
- Expertise in the latest methods and frameworks for specifying and implementing large scale systems.
- Paid experience of software development in the IT industry.

This degree is suitable for you if:

- You want to be taught by researchers and practitioners with an international research reputation.
- You want to be involved in the development and management of large, complex, mission-critical software.
- You aspire to a successful career in software development.

City University London ranks tenth amongst the UK's top universities offering graduates the best prospects following their studies, according to the Times Complete University Guide 2011.





Dr Jacob Howe

Lectures on programming and is a specialist in techniques for the understanding of declarative programming.

“There is increasing demand for machines to anticipate human needs, solve complex problems and act autonomously. Whilst at City you will learn techniques to allow you to create cutting-edge artificial intelligence software solutions and participate in advances in the area.”



Chris Child

Lecturer, and Computer Game Company Director, Childish Things Ltd.

“The video games industry is a booming sector -in the last few years we experienced record-breaking sales, generating more revenue than the film industry. Describing it as ‘exciting’ to work behind the scenes is somewhat of an understatement. We will teach you technical games-building skills, as well as a more general computer science education.”



Dr Seb Hunt

Lectures on programming and is a specialist in the automated analysis of software, with an emphasis on the analysis of security properties.

“As software systems become more and more complex, developers increasingly depend on automatic tools to analyse their behaviour and identify faults and vulnerabilities. We will teach you the fundamental theory, techniques and principles which underpin this rapidly developing area of research.”



Dr Andrea Zisman

A reader in the Department of Computing, Andrea lectures and researches in the areas of software and services engineering.

“Existing large and complex software systems require the use of methods, techniques and tools to support their development. Our up-to-the-minute curriculum will teach you about these methods and techniques, introduce you to new advances in the field, and equip you with tools to help you build software systems.”



Our research: your learning

Be taught by international experts

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At City University London your professors and lecturers are researching into new areas of computing. This research feeds into the courses we teach and ensures that you learn about the very latest developments during your degree. Our staff are recognised experts in their fields, undertake consultancy, write patents and publish regularly in leading international journals.

Our staff undertake research in three high-profile areas – software engineering, human-computer interaction and artificial intelligence.

Fun and games

Computer games are now part of our social life. Research at our school is looking into the interface interaction as well as the social interaction with 3D virtual worlds such as World of Warcraft, Second Life and other computer games such as Wii. Our goal is to explore and identify usability and sociability issues within such environments.

Handing over safety

Clinical handover is an essential aspect of hospital patient safety, yet current practice varies from ward to ward and hospital to hospital. Handovers are often impromptu, informal and supported by ad hoc technologies. In the GHandI project we are investigating handover and the role of innovative handover support technologies in a range of different clinical settings at Guys, Great Ormond Street, the Royal Brompton and Kings College Hospitals in London as well as the Princess Royal University Hospital in Bromley.

Research

The last UK national Research Assessment Exercise found that 85 per cent of our academic staff were undertaking research of national or international excellence (rating 4). In the past five years, we have received more than 3.5 million pounds of external research income and won 5.5 million pounds of new research income from industry, research councils and the European Union. Your degrees are also enhanced by relevant internationally-renowned research in information management and business elsewhere in the University.

Saving the world

Air travel is a major contributor to global warming and other forms of environmental pollution. And this problem will get worse as we build more airports so that we can travel to more destinations. Clearly new and innovative solutions are needed. At City we are working on a large DTI-funded project to develop new computerized systems that are designed to minimize the environmental impact of airport movement during landing, taxiing and take-off. We are currently piloting these systems at Belfast City Airport.

Do you really trust computer systems?

Hospitals, power stations and other essential services have to rely on their computers. The Centre for Software Reliability at City is a major partner in projects which develop new ways of making sure that computer systems are more reliable, more dependable and more trustworthy. The interdisciplinary projects examine all aspects of computer system dependability, from safety to security, in applications ranging from nuclear power plants to medical diagnosis.

Talking to the telly

Some people find it hard to use conventional remote controls when satellite TV with its interactive services could offer them so much. In the VISTA project with BSkyB and the Independent Television Commission we developed a virtual human interface that you can talk to via a microphone in the remote control.





Capital City

Studying in London puts you at the centre of great social, cultural and educational opportunities. The University is based in Islington in EC1 and is close to both the West End and the City. For most people, the West End is home to what makes London famous – landmarks, shopping and entertainment; restaurants, bars and clubs; cinemas and theatres; parks, museums and galleries. There is no shortage of things to see and do, and places to visit. Range and diversity are the watchwords – London caters easily for different tastes, styles, cultures, values and communities.

Being a student in London also puts you at the heart of business, finance, and the IT capital of Europe. You can benefit from opportunities for professional placements, work experience and networking. You will also be able to access a number of specialist libraries and institutes.

Student Centre

When it comes to student support services, you'll find everything you need conveniently located within our Student Centre.

The student centre can offer you information and help on a whole range of matters and should be your first point of contact for:

- General enquiries
- Financial support
- Housing
- International student support
- Disability services
- Payment of fees
- Academic learning support
- University ID cards
- Student mental health and wellbeing support
- Student appeals and complaints

The Student Centre Advisers can also provide information and advice on other University services and events, including:

- Course registration procedures
- E-learning and CitySpace
- University libraries and computing services
- Graduation ceremonies



Students' Union

The Students' Union offers you access to over 50 clubs and societies; as well as the Active8 programme which is a completely flexible, no commitment opportunity to try activities such as ice skating, rock climbing and horse riding. The Students' Union new venue Ten² is the perfect place to relax after a hard day studying, and has a deli, a shop, a chill-out area and a bar for you to use.

Library Information Services

The main University Library is at Northampton Square. Occupying the top five floors in the University Building, it provides a modern and well-equipped environment in which to work. It also houses a law library and other specialist collections.

The total library stock is more than 350,000 volumes across five library sites, of which around two-thirds are books that may be borrowed. Undergraduates may borrow up to 15 books for up to three weeks. The libraries also hold about 100,000 volumes of scholarly periodicals and provide access to an increasing number of electronic journals, another important resource for academic study. There are more than 1,100 study spaces and facilities are available for laptop use.

Library Information Services supplements its own collections through the national interlibrary loan network and information is available about national schemes allowing access to other academic and specialist libraries, many of which are based in London.





IT Services

Once you've started at City, you'll have your own IT account, so you can use any of the 1,100 PCs across the University. You'll also have your own University email address, web space and backed-up file storage space.

The equipment is compatible with the requirements of IT in the corporate world, and the networked workstations run a wide range of software including access to the internet and e-mail. Specialist IT development software is also available. The University is linked to other academic institutions via the internet. Network connections are available in the halls of residence. There is a one-off fee for access to the datapoint for IT services in the halls.

The Computing Services shop supplies computers, consumables and related peripherals at competitive prices. Software related to your studies is available at a discount price. The shop also provides advice and an after-sales service.

SAP Products Laboratory

City launched the first laboratory in the UK dedicated to teaching software engineering with enterprise resource planning packages, a market in which SAP's R/3 software package is a leader. Our undergraduate courses are the first in the UK to make use of this teaching facility.

Accommodation

The University has invested in new and refurbished halls of residence and each room has its own telephone and data points, enabling direct access to the University's residential network. The Accommodation Service at City serves all prospective and registered full-time students and is responsible for the administration and allocation of places in the University's halls of residence.

All first year students living outside Greater London who both firmly accept an unconditional offer or conditional offer by 15 May and return their completed application form to the Accommodation Service by 15 May are guaranteed a room in a University hall of residence.

Study Abroad

Students who perform well during their degree may have the opportunity to spend a year studying abroad, usually in the second year. Recently, some of our students have spent a year at Syracuse and Stanford Universities in the United States.

City Interaction Lab

The City Interaction Lab is a new research facility at City University London established with the generous support of The Vodafone UK Foundation. The Interaction Lab provides state of the art technologies (e.g. eye-tracking) and software for evaluation of the usability and accessibility of interactive computer systems.

Sports Activities

City students have full access to the range of recreational facilities provided by the University. Grounds in North London cater for field sports, while the nearby Saddlers Sports Centre provides a comprehensive programme of indoor recreation and sport and houses an extensive range of cardio equipment. You also have the opportunity to take part in sports activities organised by City's student clubs, such as sub-aqua, canoeing, sailing, football, rugby, hockey, tennis, cricket and netball.





Entrance requirements

Our typical conditional offer for applicants taking A-Levels is 320 UCAS tariff points excluding key skills (eg BBC plus extra AS at grade C). When making a decision we evaluate all aspects of the application, such as the personal statement, reference and relevant work experience, not solely exam grades.

Science, technology and mathematics subjects are preferred, and at least one such subject should be offered (though all subject combinations will be considered on their merits).

We welcome applicants offering other qualifications such as the BTEC National Diploma (typical offer DDM) in relevant subjects and the International Baccalaureate (29 IB points).

We accept the new Advanced 14-19 Diploma on the same standing as A-Levels based on the UCAS tariff.

We usually require applicants to present at least 18 units (three A-Levels) or equivalent.

We do not accept A-Levels in general studies or in any foreign language that is the first language of the applicant.

Key skills will not usually form part of conditional offers, but will be taken into account if the applicant falls short of the stated offer.

Overseas and non-standard qualifications and applications based on substantial relevant work experience will be considered. Although we aim to be flexible, decisions will be made on the basis of equivalence to our A-Levels intake.

A detailed document describing our admissions policy is available from our website www.soi.city.ac.uk/ugdetails/admissions.html

English language requirements

If your first language is not English, we will require evidence of your English language proficiency.

TOEFL: 550

TOEFL: 79 (internet-based version)

IELTS: 6.0 or above.

Other English language qualifications may also meet our requirements. Please check with Undergraduate Admissions before application.

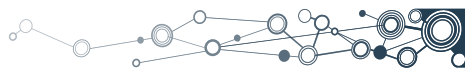
International Foundation Programme at City

City has a number of successful partnership arrangements offering foundation courses for international students seeking entry to undergraduate degrees. These courses will offer a guarantee of entry to a specific degree at City - provided that students achieve the grades required to proceed.

Foundation and preparatory courses leading to study at City University London include: INTO, City and Islington College and Kaplan International College London. For further information please visit the appropriate website.

Other foundation years

Other foundation courses that the University recognises are offered at David Game College (www.davidgame-group.com), Bellerbys College (www.bellerbys.com) and a variety of other colleges. Students are advised to contact our Undergraduate Admissions Team for advice on the recognition of other foundation courses.



How to apply

All applications should be made online through UCAS, the Universities Central Admissions Service. For further information, please visit:

<http://www.ucas.ac.uk/students/applying/howtoapply/>

The institution code for City University London is C60. The course codes are detailed below. It is strongly recommended that you apply before the closing date of 15 January of the year of entry. Applications received after this date will be considered depending on the availability of places.



UCAS contact details

Customer Services Unit
UCAS
PO Box 28
Cheltenham
Gloucestershire
GL52 3LZ

Tel: 0871 468 0468 (or 0044 871 468 0468 for overseas students)

Email: enquiries@ucas.ac.uk
www.ucas.ac.uk

UCAS codes

▪ BSc (Hons) Computer Science	G400
▪ BSc (Hons) Business Computing Systems	G422
▪ BSc (Hons) Computer Science with Games Technology	G490
▪ BSc (Hons) Computer Science with Artificial Intelligence	G4G7
▪ BSc (Hons) Information Systems	G501
▪ BSc (Hons) Software Engineering	G600

City University London tuition fees

UK/EU students	£3,290 per year
International students	£10,350 per year

Fees above are for 2010 entry; they are subject to change in 2011 and subsequent years.

City University London bursaries

You may be eligible for a City University London Bursary (for example, £770 for each year that you receive a full maintenance grant of £2,906 and are paying full tuition fees of £3,290 – amounts correct at time of publication). For further information, please visit:

www.city.ac.uk/studentcentre/support/undergraduate/bursary.html

More bursaries and scholarships

There are also a number of additional bursaries and scholarships available to full-time undergraduate students at City. Contact the Student Centre for more information:
www.city.ac.uk/studentcentre/support/undergraduate/bursary.html



Contacting us

You can contact our Undergraduate Admissions team as follows:

Undergraduate Admissions Team
Programmes Office
School of Informatics
City University London
Northampton Square
London
EC1V 0HB
United Kingdom

Tel: +44 (0)20 7040 8406
Fax: +44 (0)20 7040 8587
Email: ugenquire@soi.city.ac.uk

If you are enquiring about the progress of an application you have made through UCAS, please remember to provide your UCAS application number.

Additional information and frequently asked questions (FAQ)

Additional information can be found on our undergraduate courses web page at: www.soi.city.ac.uk/ugcourses including answers to the most frequently asked questions www.soi.city.ac.uk/ugdetails/faq

Please get in touch – we are happy to answer your questions and we look forward to hearing from you!





Services for students with disabilities or specific learning difficulties

Disability Services offers advice and support to students with disabilities and also houses the Dyslexia Support Unit. Applicants who may require these services and support are advised to contact Disability Services at an early stage on +44 (0)20 7040 0246 or email disability@city.ac.uk to discuss their individual requirements.

Disclaimer

The information contained in this brochure is correct at the time of going to press in September 2010. The University reserves the right, arising from unforeseen events or circumstances beyond our control, to add to or remove courses, and to make changes in regulations, syllabuses, course options, timetables and modules fees etc, without prior notice.

General information about the University including fees, general entry requirements, accommodation and social and welfare services, is given in the Undergraduate Prospectus, which can be viewed or ordered online on the University's website: www.city.ac.uk/study

Location map



This map is intended as a guide only and is not to scale.

City sites

- | | | | |
|----|----------------------------------|----|---|
| 1 | Northampton Square | 13 | Francis Rowley Court |
| 2 | Parkes Building Health Centre | 14 | St Bartholomew School of Nursing & Midwifery (West Smithfield site) |
| 3 | Myddelton Building | 15 | Cass Business School |
| 4 | Goswell Place | 16 | St Bartholomew School of Nursing & Midwifery (Whitechapel site) |
| 5 | Social Sciences Building | 17 | 2-10 Princeton Street (Inns of Court School of Law) |
| 6 | Innovation Centre | 18 | 2 Atkin Building (Inns of Court School of Law) |
| 7 | Gloucester Building | 19 | 4 Gray's Inn Place (Inns of Court School of Law) |
| 8 | 41-53 Goswell Road | | |
| 9 | Fight for Sight Optometry Clinic | | |
| 10 | Walter Sickert Hall | | |
| 11 | Saddlers Sports Centre | | |
| 12 | Finsbury Hall | | |
| 13 | Peartree Hall | | |
| 14 | Heyworth Hall | | |



www.soi.city.ac.uk/jgcourses ■ Telephone: +44 (0)20 7040 8406 ■ jgenquire@soi.city.ac.uk

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Undergraduate courses Computing and Information Technology



- BSc Business Computing Systems
- BSc Computer Science
- BSc Computer Science with Artificial Intelligence
- BSc Computer Science with Games Technology
- BSc Information Systems
- BSc Software Engineering



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