

# Computer Science

 GUARDIAN UNIVERSITY GUIDE 2018  
4TH IN THE UK FOR COMPUTER SCIENCE

 NSS 2017  
TOP 5 IN THE UK FOR OVERALL  
SATISFACTION IN COMPUTER SCIENCE

 DHLE 2015/16  
£28,500+ AVERAGE ANNUAL GRADUATE  
SALARY WITHIN SIX MONTHS OF GRADUATION





## Why Computer Science?

Computer Science is a rapidly evolving and increasingly important field, pervasive in almost all areas of science and modern day life. Computer Science graduates are therefore in high demand across an increasingly diverse range of industries.

At Loughborough University, the Department of Computer Science has been equipping students with the cutting edge skills and knowledge needed to work in this constantly advancing field since 1974. Based centrally on campus, the Department offers a stimulating learning environment that boasts state-of-the-art lab facilities, study areas and seminar rooms, and ongoing investment in resources.

Our students benefit not only from excellent facilities and world-class cutting edge research carried out by staff, but from our enviable international industry links. Our Industry Liaison Committee represents leading UK and international companies and provides regular input to curriculum development, career advice to students and additional teaching resources.

These links with industry ensure the Department of Computer Science sits at the forefront of technological development – and also provide early opportunities for students to secure employment. The demand for our graduates is high across a diverse range of industries, as is reflected by their continued success and consistently high starting salaries.

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DHLE 2015/16  
96% IN GRADUATE-  
LEVEL EMPLOYMENT  
(OF THOSE IN FULL-  
TIME EMPLOYMENT  
WITHIN SIX MONTHS  
OF GRADUATION)



SEVERAL COURSES  
ACCREDITED  
BY THE BRITISH  
COMPUTER SOCIETY  
(BCS) AND THE  
TECH PARTNERSHIP



GUARDIAN UNIVERSITY  
GUIDE 2018  
UNIVERSITY  
RANKED 6TH

## Outstanding facilities

The Department of Computer Science is based in the recently £5 million refurbished Haslegrave building and provides an excellent environment in which to study, boasting state-of-the-art facilities and teaching resources.

In addition, as a Loughborough student, you will have access to the wide-ranging high quality facilities on campus, including round-the-clock access to computer labs and our extensive computer library resources.



## Your Computer Science department

As a student within the Department you will have access to six computer laboratories for the use of School of Science students that feature triple boot (Windows/Linux/MacOs) computers.

In addition, our labs offer 24-hour access for students, as well as support from a team of systems specialists.

The building also provides modern study rooms, seminar rooms and specialist labs for student project work on hardware and robotics.

Ongoing investment has seen our new robotics lab open recently, featuring advanced robotics equipment including a pair of Aldabaran Robotics NAO robots. The lab is used to conduct cutting edge research into robotic programming using deep learning AI techniques. The lab is equipped with testing facilities designed to explore the future potential for robotics in society. The NAO robots build on our existing complement of robotic equipment which includes a number of quadcopters, robotic animals and E-Pucks.

As a Loughborough University computer science student, you will have access to our peer mentoring scheme. There to provide encouragement, advice and signpost you to relevant staff and services, your peer mentor will support your transition into university life.

—  
*“Everyone is really friendly and encourages you to participate in the different clubs the University has on offer. Being part of the Afro-Caribbean Society (LSU ACS) has been a great way to interact with people from a similar culture. Being at Loughborough is such a great environment to be in.”*

—  
 Lizz Olabusi  
 BSc Computing and Management

# Our courses

Our undergraduate courses are informed by industry needs and give students a thorough grounding in the fundamentals of computing, as well as transferable skills in problem-solving and project work. In addition to the academic content of our degree courses, emphasis is placed on the development of your personal, managerial and presentation skills.

We continually monitor course content for quality and make improvements based on feedback from students, senior industrialists and accrediting bodies such as the British Computer Society and The Tech Partnership. Major companies are directly involved in sponsoring our modules, supporting project work and providing guest lectures and prizes.

Several of our BSc and MSci courses are accredited by the British Computer Society (BCS). Our Information Technology Management for Business course is accredited by The Tech Partnership.

The courses we offer are:

Computer Science  
 Computer Science and Artificial Intelligence  
 Computer Science and Management  
 Computer Science with Mathematics  
 Information Technology Management for Business  
 Computer Science with a Foundation Year

## The MSci degree

The Masters in Science (MSci) degrees provides an ideal preparation for research and development work in industry or for a PhD. They are designed to create leaders in the subject area by giving in-depth experience of cutting edge research.



# Computer Science

**MSci (Hons) DPS\*** 5 years full-time sandwich  
**UCAS code:** G403

**MSci (Hons)** 4 years full-time  
**UCAS code:** G402

**BSc (Hons) DPS\*** 4 years full-time sandwich  
**UCAS code:** G401

**BSc (Hons)** 3 years full-time  
**UCAS code:** G400

## Typical offers

**A level:** AAA (MSci) / ABB (BSc) including Mathematics (or AAA (MSci) / ABB (BSc) plus AS level Mathematics at Grade A)

**IB:** (MSci) 37 (6,6,6 HL) / (BSc) 34 (6,5,5 HL) including HL Mathematics

**BTEC Level 3 National Extended Certificate:** BTEC Level 3 National Extended Certificate/National Diploma: (MSci) AA in 2 A levels including Mathematics plus D\* / (BSc) AB in 2 A levels including Mathematics plus D or A level Mathematics at Grade B plus D\*D\*

**GCSE:** Minimum 5 GCSEs Grades A\*-B (9-6) including Mathematics



Computer science is a rapidly evolving and increasingly important field, pervasive in almost all areas of science and modern day life. Our Computer Science course is firmly grounded in theory and practice, with a strong emphasis placed on logic, programming and mathematical ability. The course can be tailored to a variety of career paths via the choice of specialist modules.

This course provides a strong foundation in the critical areas of the subject whilst also giving the opportunity to tailor the degree to your strengths, interests and career aspirations via the choice of specialised modules and project work, taught and supervised by world leading experts.

*"I love how we don't just focus on programming. We are taught a wide range of skills ranging from technological to business. I think this makes us well rounded people, who can hopefully do anything!"*

Jonathan Smith  
 MSci Computer Science

# Computer Science and Artificial intelligence

## Computer Science and Artificial Intelligence

**MSci (Hons) DPS\*** 5 years full-time sandwich  
**UCAS code:** GGK7

**MSci (Hons)** 4 years full-time  
**UCAS code:** GG4R

**BSc (Hons) DPS\*** 4 years full-time sandwich  
**UCAS code:** GG47

**BSc (Hons)** 3 years full-time  
**UCAS code:** GG4T

## Typical offers

**A level:** AAA (MSci) / ABB (BSc) including Mathematics (or AAA (MSci) / ABB (BSc) plus AS level Mathematics at Grade A)

**IB:** (MSci) 37 (6,6,6 HL) / (BSc) 34 (6,5,5 HL) including HL Mathematics

**BTEC Level 3 National Extended Certificate:** BTEC Level 3 National Extended Certificate/National Diploma: (MSci) AA in 2 A levels including Mathematics plus D\* / (BSc) AB in 2 A levels including Mathematics plus D or A level Mathematics at Grade B plus D\*D\*

**GCSE:** Minimum 5 GCSEs Grades A\*-B (9-6) including Mathematics



Artificial Intelligence (AI) is the science of mimicking human intelligence inside a computer. The Computer Science and Artificial Intelligence degree course is a computing degree that allows students to specialise in AI through their project work and a number of specialist AI modules. It contains broad coverage of all major Computer Science topics as well as specialist modules in artificial intelligence, taught by world leading experts from our Vision, Autonomous and Human-Computer Systems research group. Our research constantly feeds into our teaching curriculum meaning you will learn cutting edge techniques whilst studying this topic.

 [www.lboro.ac.uk/compsci](http://www.lboro.ac.uk/compsci)

# Computing and Management

**MSci (Hons) DPS\*** 5 years full-time sandwich  
**UCAS code:** GNL2

**MSci (Hons)** 4 years full-time  
**UCAS code:** GN4F

**BSc (Hons) DPS\*** 4 years full-time sandwich  
**UCAS code:** GN42

**BSc (Hons)** 3 years full-time  
**UCAS code:** GNK2

#### Typical offers

**A level:** AAA (MSci) / ABB (BSc)

**IB:** (MSci) 37 (6,6,6 HL) / (BSc) 34 (6,5,5 HL)

**BTEC Level 3 National Extended Diploma:** (BSc only)  
 D\*D\*D\* in Computing or IT (see online prospectus for  
 MSci and BTEC / A level combinations)

**GCSE:** Minimum 5 GCSEs Grades A\*-B (9-6) including  
 Mathematics

This degree course provides an excellent preparation for a challenging and rewarding career, offering a high level of knowledge and practical skills in both Information Technology (IT) and management. Graduates possessing these 'hybrid' skills are highly sought after in industry.

The course is approximately evenly divided between IT and management subjects and is taught in conjunction with the highly rated School of Business and Economics.



# Computer Science and Mathematics

**MSci (Hons) DPS\*** 5 years full-time sandwich  
**UCAS code:** GGL1

**MSci (Hons)** 4 years full-time  
**UCAS code:** GJK1

**BSc (Hons) DPS\*** 4 years full-time sandwich  
**UCAS code:** GG4D

**BSc (Hons)** 3 years full-time  
**UCAS code:** GG4C

#### Typical offers

**A level:** AAA (MSci) / ABB (BSc) including Grade A in  
 Mathematics

**IB:** (MSci) 37 (6,6,6 HL) / (BSc) 34 (6,5,5 HL) with 6 at  
 HL Mathematics

**BTEC Level 3 National Extended Certificate:** BTEC Level  
 3 National Extended Certificate/National Diploma: (MSci)  
 AA in 2 A levels including Mathematics plus D\* / (BSc) AB  
 in 2 A levels including Mathematics at Grade A plus D or A  
 level Mathematics at Grade A plus D\*D

**GCSE:** Minimum 5 GCSEs Grades A\*-B (9-6) including  
 Mathematics

Many real-world problems are solved by a close-knit combination of mathematical and computational techniques. This degree course aims to equip students with a powerful skills-set to deal with such tasks, which also provides an excellent grounding for any career in either computing or mathematics.

The course is divided equally into topics from computer science and mathematics, and is taught in conjunction with the Department of Mathematical Sciences, so that graduates have a wide range of experience in both areas.



# Information Technology Management for Business

**MSci (Hons) DPS\*** 5 years full-time sandwich  
**UCAS code:** G500

**MSci (Hons)** 4 years full-time  
**UCAS code:** G501

**BSc (Hons) DPS\*** 4 years full-time sandwich  
**UCAS code:** GN51

**BSc (Hons)** 3 years full-time  
**UCAS code:** GN52

#### Typical offers

**A level:** AAA (MSci) / ABB (BSc)

**IB:** (MSci) 37 (6,6,6 HL) / (BSc) 34 (6,5,5 HL)

**BTEC Level 3 National Extended Diploma:** (BSc only)  
 D\*D\*D\* in Computing or IT (see online prospectus for  
 MSci and BTEC / A level combinations)

**GCSE:** Minimum 5 GCSEs Grades A\*-B (9-6) including  
 Mathematics

The Information Technology Management for Business (ITMB) course has been designed in partnership with some of the world's leading employers to prepare students for a successful career in IT. The course enables students to gain practical experience working on real world business challenges and is taught in conjunction with the School of Business and Economics, providing experienced teaching and support.

The course is supported by a partnership of leading industry employers including BA, BBC, BT, The Cabinet Office, Cisco, Deloitte, Ford, Fujitsu, HP, IBM, ITV, LogicaCMG, The Met Office, Morgan Stanley, Norwich Union, Royal Bank of Scotland, Sainsbury's, Symantec and Unilever.



# Computer Science with a Foundation Year

**UCAS code:** G404

Computer Science with a Foundation Year is for candidates who for some reason have not had the opportunity to study the pre-requisite subjects needed for first year entry. Offers will not normally be made to those who apply simply because their A level grades/predictions are below the requirements for direct entry.

Successful completion of the one year Foundation course allows you to progress onto any of the courses in our Department.

[www.lboro.ac.uk/foundation](http://www.lboro.ac.uk/foundation)



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## Placements and careers

All our degree courses are informed by our Industrial Liaison Committee, which represents leading UK and international companies and provides input to curriculum development. The committee also helps us provide career advice to students and additional resources for teaching.

Our strong industry links help us deliver one of the strongest placement schemes in the country.

### Outstanding placement opportunities

All our courses carry the option of a year-long placement and we have been highly successful at helping our students find placements within major IT and business sector companies.

Recent placement destinations include:

- Barclays Capital
- CERN
- Hewlett Packard
- IBM
- Mars
- Microsoft
- Morgan Stanley
- Renault F1
- 3COM

 Watch our placement video here: [www.lboro.ac.uk/departments/compsci/undergraduate/industrial-placement/](http://www.lboro.ac.uk/departments/compsci/undergraduate/industrial-placement/)

*“Loughborough University has inspired me in many ways. The Career Network has given me confidence in finding a job; the extra-curricular activities (such as committees, programme representing and volunteering) have improved my communication and networking skills. Finally, my lecturers have motivated me to focus on my ambitions. Collectively, these have inspired and developed me so much over the past four years.”*

—  
Abhishek Sunil  
MSci Computer Science and Artificial Intelligence



## Excellent career prospects

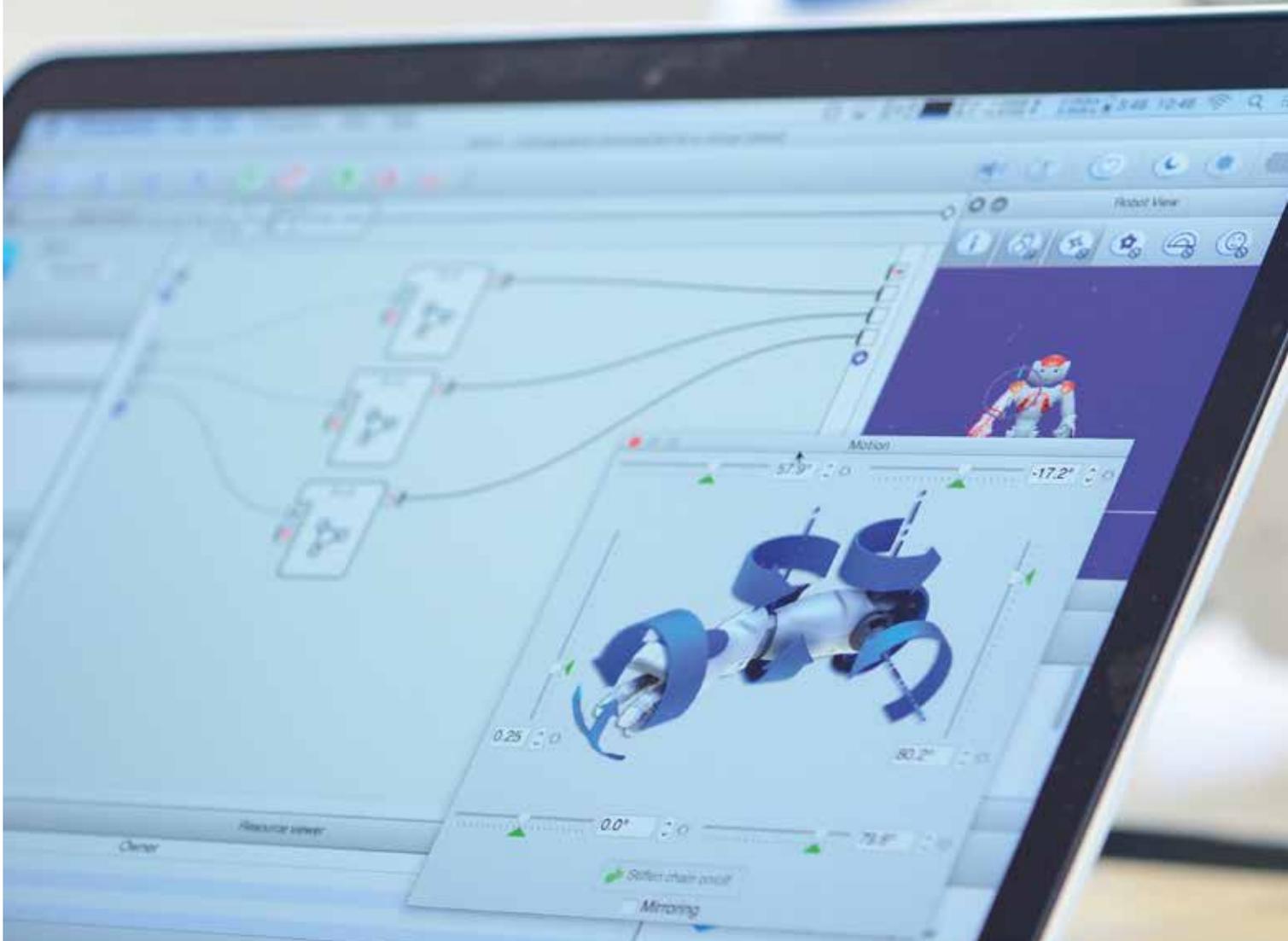
95% of our graduates were in employment and/or further study within six months of graduation (DLHE 2015/16). The employment level of our graduates is consistently higher than the national average and is reflected by their exceptionally high average starting salary of over £28,500.

Here are some of the jobs our graduates have:

- Analyst/Software Engineer, Accenture
- IT Graduate, Aston Martin
- IT Consultant, BBC
- Project Manager, Dyson
- Project Support Officer, The Tech Partnership
- IT Systems Analyst, GlaxoSmithKline
- Technical Consultant, Microsoft
- Mobile Web Developer, Netplay TV
- Risk & Implementation Analyst, Santander
- Business Technology Graduate, Siemens
- Future Leaders Programme, Unilever
- Business Analyst, William Hill



TIMES HIGHER  
EDUCATION STUDENT  
EXPERIENCE SURVEY  
BRITAIN'S BEST  
STUDENT EXPERIENCE  
OVER THE LAST  
10 YEARS 2007-2017



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