

Cardiff School of Computer
Science & Informatics
Postgraduate Programmes



Contents



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[www.cardiff.ac.uk/
computerscience](http://www.cardiff.ac.uk/computerscience)

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Welcome to the Cardiff School of Computer Science & Informatics



It gives me great pleasure to welcome you to the School of Computer Science & Informatics here at Cardiff University.

Based in Europe's youngest capital city, we are blessed with a great location and excellent facilities for you to reach your full potential. Indeed, our students consistently vote us among the top three in the UK for learning resources and environment and we are seeing increasing international interest from students overseas wishing to join the School.

Now more than ever the prospects for employment post studying Computer Science remain very strong indeed. Across most of our MSc programmes, we offer the opportunity to study with a placement which allows students the opportunity to gain valued experience in paid employment. We are proud of our employability record and have recently seen our graduates move on to some of the major UK recruiters - you are welcome to check out what our alumni are doing on LinkedIn.



Alongside this, our staff are technologists and computer scientists, being leaders in areas of their expertise and keen to share their skills, knowledge and understanding. Much of the research that our School undertakes is internationally leading and part of our mission is to share the excitement of discovery and the state of the art with our students.

If you want to learn more about life in our School, please feel free to join us on Facebook and Twitter. It would be a pleasure to see you in Cardiff, and on behalf of all staff here at the School of Computer Science & Informatics, may I wish you the best of luck with your future studies.

Professor Stephen Hurley
Head of School



Professor Alun Preece
Director of Research



Dr Stuart Allen
Director of Teaching



Dr Wendy Ivins
Postgraduate Programme Operation's Team Leader

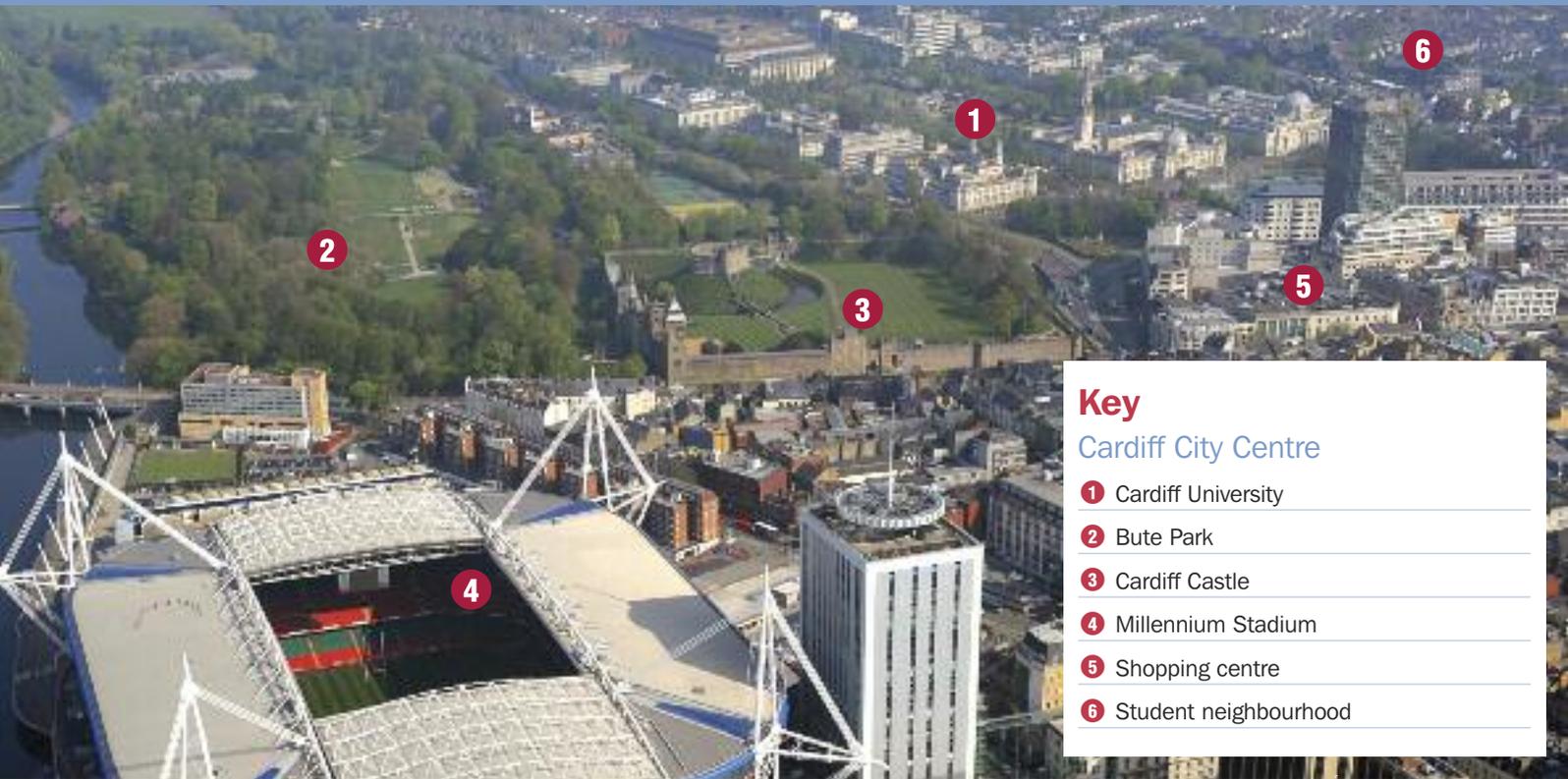


Dr Leigh Hodge
Postgraduate Admissions Tutor



Gemma Murphy
International Student Recruitment Officer

Cardiff: the Capital City of Wales



Key

Cardiff City Centre

- 1 Cardiff University
- 2 Bute Park
- 3 Cardiff Castle
- 4 Millennium Stadium
- 5 Shopping centre
- 6 Student neighbourhood

Cardiff is a thriving and attractive city which is widely recognised as an outstanding place in which to live and study.

Location

Cardiff is located on the coast of South Wales, which has beautiful national parks and beaches only 30 minutes away. Cardiff is approximately 230km (145 miles) west of London and is easily accessed by train in about 2 hours. Cardiff has excellent transport links (ranked 1st in the UK for the most transport friendly city) with an international airport that has flights to many cities in Europe.



The perfect student city

Cardiff is a small city with a population of about 340,000 people. Approximately 20% of the population are students, which makes it safe, friendly and affordable (see pages 6-7). Cardiff, however, is also a capital city with all the culture, sports, shops, entertainment, work opportunities and atmosphere you would expect of a modern European metropolis.





12 Facts About Cardiff

- ▶ Cardiff University is in the city centre of Cardiff.
- ▶ Cardiff Airport has more than 30 flights a day to UK and European cities.
- ▶ Cardiff is only 2 hours from London by train.
- ▶ Cardiff has a new £675 million shopping centre in the city centre.
- ▶ Voted the UK's seventh best nightlife city in 2011 by TripAdvisor users.
- ▶ Cardiff has a 70,000 seated stadium, an international sports village and a football league soccer club: Cardiff City FC.
- ▶ Cardiff has more than 330 parks and gardens.
- ▶ Cardiff was one of National Geographic's top 10 summer destinations 2011.
- ▶ The popular TV shows Doctor Who and Torchwood are filmed in Cardiff.
- ▶ Selected as the European Capital of Sport for 2014.
- ▶ Named as 6th best shopping destination in the UK.
- ▶ Home to Europe's oldest living language, Welsh is spoken by 20% of the population, but don't worry everybody speaks English!

The University is surrounded by attractive parkland and is adjacent to Cardiff Castle and the city centre

With its distinctive character, good quality of life, and growing national and international reputation, it hosts many high-profile sporting and cultural events, including international rugby, soccer, cricket and motor sport, Cardiff Singer of the World and is home to the biannual Artes Mundi exhibition and prize (the UK's biggest art prize).

Home to the world-renowned Welsh National Opera, it boasts prestigious concert venues such as the Wales Millennium Centre, St David's Hall and the Motorpoint Arena, as well as the iconic Millennium Stadium, the National Museum and Gallery of Wales, several theatres and the historic Cardiff Castle.

Cardiff is the location for award-winning television productions, including Dr Who, Sherlock, Torchwood and Casualty, and the

Dr Who Experience in Cardiff Bay is a popular new attraction.

This means you get a small inexpensive city you can easily walk around, but also an exciting city where there is always something to do. To find out more about the city of Cardiff visit:

www.cardiff.ac.uk/postgradlife

A diverse, international city

Cardiff was one of the UK's first multi-cultural cities and an estimated 94 languages are spoken here. This is a real benefit for international students because many of the food and ingredients you have in your country are also sold in Cardiff. You can also be assured that there are many religious and cultural facilities across the city, including mosques, synagogues, churches and temples.



Weather in Cardiff

The average temperature in Cardiff in Winter is 7°C, and in Summer temperatures can reach up to 30°C. With four seasons, the weather in the UK is generally unpredictable and can vary considerably, however, Cardiff experiences less rainfall than other areas of Wales and is consistent with the rest of the UK.

Cardiff: the University



Cardiff University has an international reputation for excellence in teaching and research, built on a history of service and achievement since 1883, and recognised by our membership of the Russell Group of leading research-led universities.

The Complete University Guide 2015

Top 30 British universities
(Complete University Guide 2015)

Rank	University
1	University of Cambridge
2	University of Oxford
3	London School of Economics
4	University of St Andrews
5	Durham University
6	Imperial College London
7	University of Warwick
8	University of Bath
9	University College London
10	University of Exeter
11	Lancaster University
12	University of Surrey
13	Loughborough University
14	University of York
15	University of East Anglia
16	University of Southampton
17	University of Birmingham
18	University of Bristol
19	University of Leicester
20	Newcastle University
21	Edinburgh
22	University of Kent
=23	Cardiff University
=23	University of Leeds
=23	University of Nottingham
26	University of Sheffield
27	Aston University
=28	King's College London
=28	University of Manchester
30	University of Glasgow

A History of Achievement

The University was founded in 1883 when it was granted its own Royal Charter. Today, Cardiff is a member of the Russell Group, the UK's top 24 research intensive universities. It attracts students from more than 100 countries and substantial research funding from the Research Councils, public bodies, industry, commerce and other sources.

Cardiff University has celebrated a number of notable achievements during the past few years. Foremost among these was the award of the Nobel Prize for Medicine to Professor Sir Martin Evans of the School of Biosciences; Sir Martin becoming Cardiff University's second Nobel Prize winner, joining Professor Robert Huber of the School of Chemistry. The University was also awarded its fifth Queen's Anniversary Prize – an award which recognises universities and colleges across the UK for work of outstanding excellence.

Looking to the future, further increasing partnerships and collaboration are central to the University's mission to be a world-leading university; both internally – through interdisciplinary teams – and externally, through links with organisations of all types, nationally and internationally.

Location

The University's Cathays Park campus is located in and around the impressive Portland stone buildings, parks and wide tree-lined avenues that form Cardiff's attractive civic centre. The majority of academic schools are located here - just a few minutes' walk from the city centre. The four academic schools offering healthcare courses (excluding Optometry and Pharmacy) are based at the Heath Park campus, approximately one mile away, which is also home to the University Hospital of Wales.

The School of Computer Science & Informatics is located in the Cathays Park campus and is in very close proximity to the city centre. Further details can be found on page 6.

Facilities

Although dating from 1883, Cardiff is focused on the 21st century, and has modern state-of-the-art buildings and facilities. The University has invested £200 million in its estate in recent years and most academic schools have benefited from major refurbishment, including new and well-equipped laboratories, lecture theatres, libraries and computing facilities.



10 Facts About Cardiff University

- ▶ Ranked 15th in the UK based on Research and top 1.5% in the world.
- ▶ Cardiff University is a member of the elite Russell Group top 24 UK research-led universities.
- ▶ The University teaches more than 28,000 students from more than 110 countries.
- ▶ Employment rates for Cardiff are higher than the UK average (HESA 2012/13).
- ▶ Accommodation in University residences is guaranteed for most international students and is within walking distance of the University.
- ▶ The University has 18 libraries, 28 IT suites, a Wi-Fi enabled campus and more than 1.5 million books.
- ▶ The University is on two campuses at the very centre of Cardiff, the capital city of Wales. Cardiff is only 2 hours from London by train.
- ▶ Teaching at the University was given the highest possible award in the last UK Government review. The University's degree programmes are also recognised by more than 40 professional bodies.
- ▶ The University generates more than £100 million annually from research grants and contracts.
- ▶ University Professor Sir Martin Evans FRS, is a Nobel Prize winner for Medicine.

The Graduate Centre

A Dedicated Space for Postgraduates

Our Graduate Centre is dedicated to meeting the needs of postgraduate students, through provision of a wide range of study and social resources and services, exclusive to postgraduates, which complement those offered by our academic schools. The Centre provides a focal point for the broader taught and research postgraduate community, giving you the opportunity to meet and socialise with others in a friendly and relaxed environment. A smaller facility is located in the Main Hospital for postgraduates based at the Heath Park Campus.

Study Facilities

There is wireless access to the University's computing network throughout the Graduate Centre and a dedicated computer room with 35 networked terminals, printers, scanner and photocopier. Five meeting rooms provide space for study and project groups, training workshops, seminars, presentations and meetings. A reading room offers individual quiet study space for up to 35 people. The Lounge provides an informal space for group study, as well as additional computing. At Heath Park, there is a study room which is also equipped with a projector and a whiteboard, so it can be booked by postgraduates for seminars or meetings.

Social Venue & Activities

The Graduate Centre hosts a programme of social events specifically for postgraduates, to give you the opportunity to meet and get to know your fellow students. These include two weeks of welcome events for new students in October, plus weekly film nights, quiz nights during the autumn term, a summer party in June and other one-off events throughout the year.

We also run a programme of coach trips with fortnightly excursions to various UK destinations such as Oxford, Stonehenge, Longleat Safari Park and more.

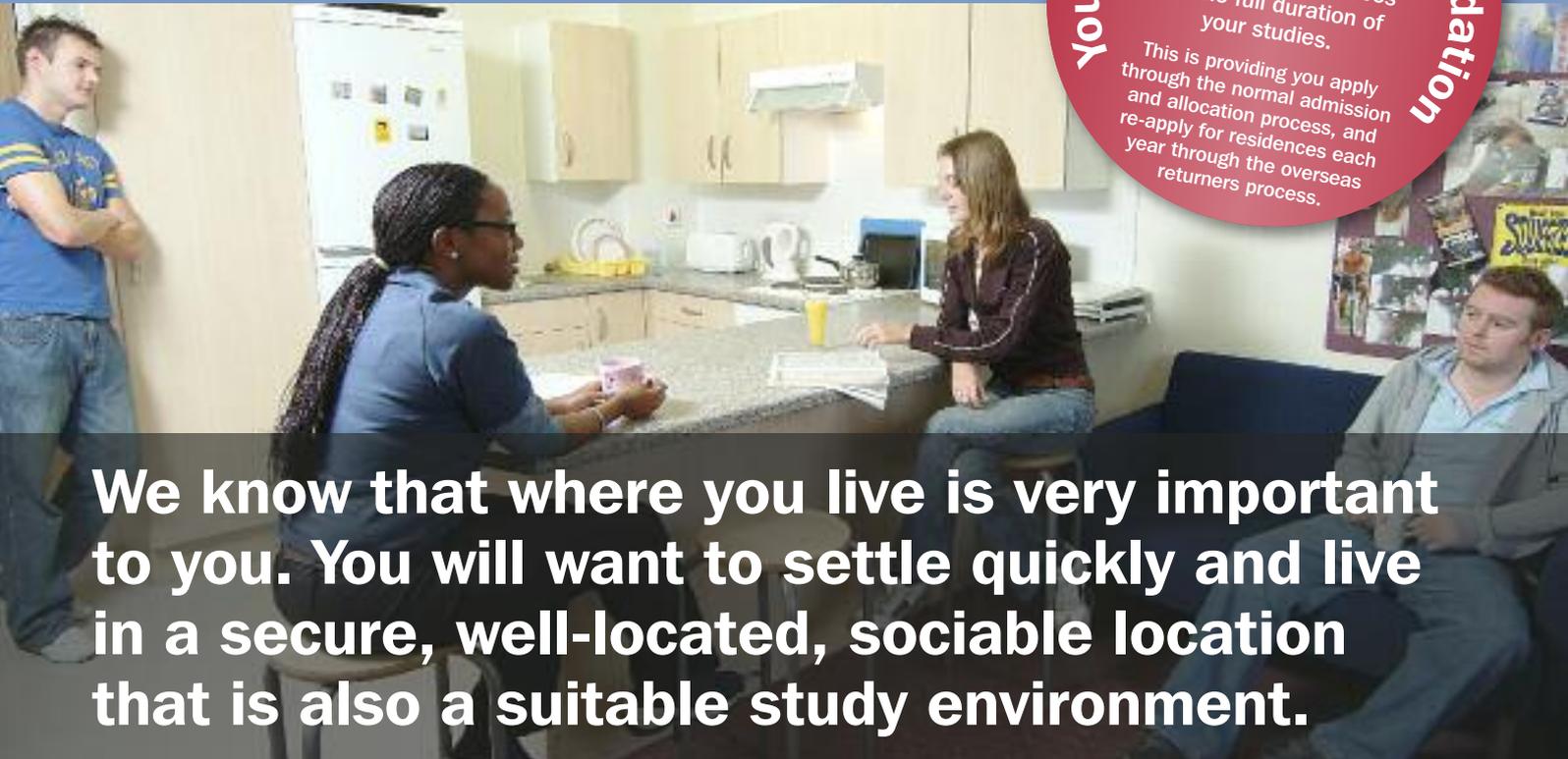
The Café Bar is modern and cosy, providing space for postgraduates to relax with friends, watch TV, play on the Wii, and take a break from their studies. It can also be booked free of charge for postgraduate-led events. At Heath Park, the social space also includes a TV, BluRay player and Wii console.

There is a licensed bar service, run by the Students' Union, which is open some weeknights and for special events.
grad-centre@cardiff.ac.uk

Looking to the future, further increasing partnerships and collaboration are central to the University's mission to be a world-leading university . . .

Accommodation

Your Guarantee of Accommodation
 International/EU postgraduate students are guaranteed a single-occupancy place in University residences for the full duration of your studies.
 This is provided you apply through the normal admission and allocation process, and re-apply for residences each year through the overseas returners process.



We know that where you live is very important to you. You will want to settle quickly and live in a secure, well-located, sociable location that is also a suitable study environment.

This is why Cardiff University provides all international/EU postgraduate students a guarantee of accommodation in one of our highly-ranked University residences.

The University has numerous residences, each with different facilities, in different locations and at different costs. All international/EU postgraduate students are guaranteed a single occupancy place in University residences, providing they submit an online application and make a pre-payment by the specified deadline. Living in a university residence provides an opportunity to meet and get to know students from a variety of backgrounds, studying a range of different subjects. Your choices include:

- ▶ single or mixed gender accommodation.
 - ▶ private or shared bathrooms. About 70% of University residences have private bathrooms (called 'ensuite').
 - ▶ self-catered, part-catered or fully catered (with vegetarian options).
 - ▶ a variety of social and sporting facilities.
- You will have your own study bedroom.

Cardiff University does not have shared rooms or dormitories.

There is a very limited supply of residences suitable for couples and families. We are therefore unable to guarantee this type of residence and priority in the allocation process is given to students coming from overseas for their first year of study. You should not bring your family to Cardiff until suitable accommodation has been secured.

Close to the School

Cardiff's residences are very well located, with many residences being a short distance from the Queen's building complex in which the School of Computer Science & Informatics is located. The majority of students are able to easily walk or cycle to their lectures everyday. The table below gives the approximate walking times from three residences to the School (see table below).

	Gordan Hall	Senghennydd Court	Talybont Court
School of Computer Science & Informatics	3 minutes	2 minutes	22 minutes
Main Building & Students' Union	8 minutes	5 minutes	15 minutes
City Centre	6 minutes	5 minutes	20 minutes

You will also find that like the University, residences are within easy reach of shops, the city centre and parks

Safe and supportive

One of the advantages of University residences is the support you are offered. Each residence has a network of residences staff, student wardens and security staff that provide 24 hour assistance. Only students, guests of students and staff are allowed on University residences sites. This makes them safe and secure.

What do University residences provide

A typical apartment in University residences could include 6 study bedrooms, each with their own bathroom. Six occupants would share a kitchen. Every student has their own bedroom. Each room has a bed, desk, chair, wardrobe and storage.

You won't need to buy additional furniture. Also Halls of Residence bedrooms are connected to the University network and highspeed internet. In your flat you will have access to a shared kitchen/dining room. This area includes a cooker, refrigerator, sink, table and chairs. If you choose 'ensuite' you will have your own bathroom with shower.

How much do University residences cost?

The cost of residences depends on several factors, including the residence you choose, length of stay, meal options and whether you want private bathroom facilities. University residences are very good value as the cost includes water, electricity, security, furniture and internet access. As everything is included in one price, it helps you more easily budget.

For the 2014/15 year self-catering residences ranged from £82 – £115 a week. Part/fully catered residences ranged from £99 – £119 a week. Rooms with private bathrooms are generally more expensive than rooms with shared bathrooms.

Private Sector Accommodation

For students who wish to rent privately-owned accommodation, there is a great choice of accommodation available for rental in the city – including a good variety within walking distance of the University and city centre.

The University's Residences Office can help by providing you with lists of properties that are currently available to rent. Detailed advice on tenancy agreements and other aspects of living in private sector accommodation is made available via the University's Student Support Centre or the Students' Union Advice and Representation Centre. The Students' Union also runs a letting agency, details of which can be found at:

www.cardiffstudentletting.com

If you are looking for private accommodation you should arrange to visit Cardiff before the start of term as it is not advisable to arrange such accommodation either by post or telephone. When you come to Cardiff for this purpose, you can take advantage of low cost accommodation in our halls provided your visit is outside term-time and that you arrange this with us in advance. Details can be found at:

www.cardiff.ac.uk/summer

The University organises an annual House Hunting Event usually taking place during August aimed at new and current Cardiff University postgraduate students who are looking for shared rented accommodation for the next academic year.

Further details here:

www.cardiff.ac.uk/for/prospective/accommodation/postgraduates/uk/house-hunting.html

How does Cardiff compare with other places?

Cardiff has many advantages which make it a cheaper place to study than other university cities. These include:

- ▶ Cardiff is a compact city and the University is in the middle – therefore you won't have far to travel between the University, city centre shops and your accommodation.
- ▶ Cardiff is also very flat making it easy to walk or cycle around. You won't need to spend money on buses or taxis.
- ▶ Cardiff council runs bicycle and car sharing schemes. This will make it even easier for you to get around without large extra costs.

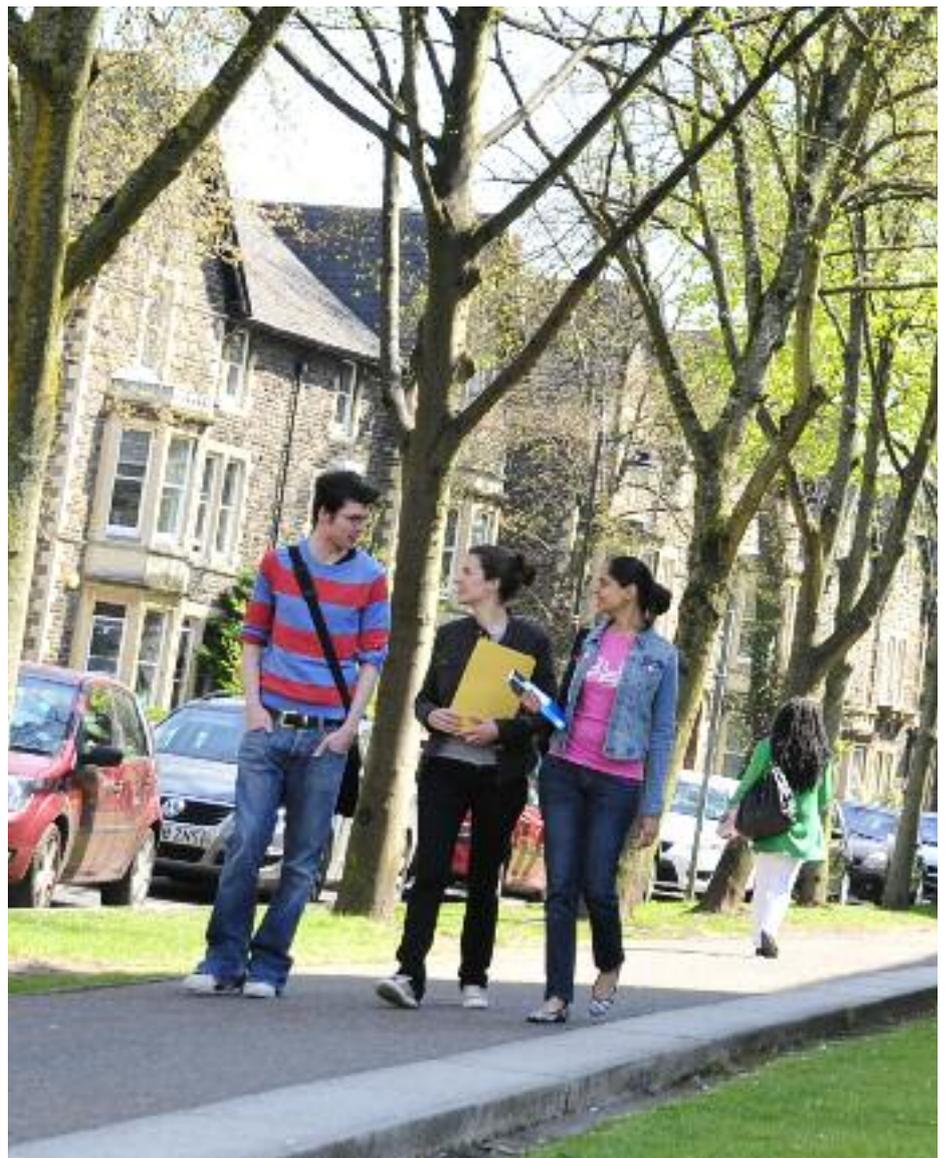
Cardiff is also one of the most affordable of the traditional university cities. Accommodation for students.com placed Cardiff as one of the top 10 cheapest university cities.

Living Expenses

The University estimates that a single student in Cardiff would need £800 a month. These estimates are based on the actual experiences of students living in Cardiff. This means for the year that a postgraduate student (September – June) needed £9,573 a year. These estimates include accommodation, bills, food, books, clothes, travel, telephone and social expenses.

Accommodationforstudents.com placed Cardiff in their list of the top 10 cheapest university cities.

If you are intending to bring family members, such as a spouse or child, you will need to have at least an extra £400 a month for each family member.



Introduction to the School of Computer Science & Informatics



The exciting and dynamic fields of Computer Science and Informatics underpin many aspects of modern life.

Our stimulating and cutting-edge Master's degree programmes will give you a real advantage in the job market, with an advanced qualification highly regarded by employers, and allow you to position yourself to take full advantage of future technological developments.



The Cardiff School of Computer Science & Informatics has an established reputation for being at the forefront of the field for its innovative teaching and cutting edge research.

Teaching, Learning and Assessment

Most modules are delivered through a series of full-day contact sessions, which include lectures, seminars, workshops, tutorials and laboratory classes. Most of your taught modules will have further information for you to study and you will be expected to work through this in your own time according to the guidance given to you by the lecturer for that module.

You will study taught modules to a total of 120 credits during the Diploma stage of your degree. All taught modules are worth 20 credits. The Placement stage (if you are doing one) is worth 120 credits. The Master's stage of your degree will be an individual project (worth 60 credits) which you will write up as a dissertation, after the Diploma or Placement stage.

During the Diploma stage, full time students must take all core modules and then select further optional modules to make up their 120 credit total. Part-time students take 60 credits per year.

The teaching year is split into two semesters (Autumn: 14 weeks, Spring: 17 weeks). Each semester consists of 11 teaching weeks followed by a revision week and an assessment period which is two weeks in the Autumn semester and five weeks in the Spring semester.

Friendly Staff and Support

At the start of the course you are allocated a personal tutor, who is an academic member of staff in the School and serves as a point of contact to advise on both academic and personal matters in an informal and confidential manner. Your personal tutor will monitor your academic progress and will also supply references in support of any job applications that you make.

Your personal tutor will monitor your progress throughout your time at university and will support you in your Personal Development Planning. You will see your personal tutor at least once each semester. Outside of scheduled tutor sessions, our senior personal tutor runs an open door policy, being on hand to advise and respond to any personal matters as they arise.

As a School, we pride ourselves on providing a supportive environment through which we are able to support our students with the majority of personal problems that arise. However, as in life, there are things that can crop up that require more specialist help. The university provides a range of specialist services, all free of charge, that students can be referred to if needed. These encompass advice services covering health, careers, finances, counselling and personal development, to name a few.



The school has 5 dedicated cross-platform laboratories, comprising Macs, Windows and Linux based machines.

Student Feedback Mechanisms

We believe that providing suitable feedback mechanisms is crucial to ensure that the best programmes of study are available to our students. The School has a student/staff panel consisting of elected student representatives and members of teaching staff who meet to discuss academic issues. Any issues that you feel need attention can be highlighted to your student representative, who will raise the query with the panel.

In conjunction with the work of the panel, all students are provided with an opportunity to complete feedback questionnaires at the end of the Autumn and Spring semesters. These mechanisms allow the School to constantly review courses and our students to receive the best provision, delivered in a consistent manner, across all of our degree programmes.

The School also has an Equality and Diversity Committee, comprising representatives of both staff and students, which regularly reviews the School's commitment to providing equal opportunities for all its staff and students, regardless of age, colour, race, ethnic or national origins, sexual orientation, marital status, family responsibilities, physical or sensory disabilities, political or religious beliefs.

Library Facilities

The School library is conveniently located in the Trevithick building, within the same complex as the School itself. Students can borrow up to 12 books at any one time, with a standard loan period of up to three weeks. Heavily demanded books, such as recommended texts, can usually only be borrowed for shorter periods of time. Some books can also be accessed electronically.

The library staff are on hand to offer specialist assistance and provide workshop training in information searching and literature research. The Trevithick Library also contains a PC room, 24 open access computers, self service issue/return, 24 hour book return and four bookable group study rooms, each equipped with plasma screens.

School Facilities

The School has 5 dedicated cross-platform laboratories, accessible solely by students from the School, comprising Macs, Windows and Linux based machines, as well as a specialist cybersecurity and computing forensics facility. The majority of these labs can be accessed on a 24/7 basis and provide our students with free printing facilities.

The University campus is covered by the Cardiff University Wireless Network, which is freely available upon registration to staff, students and invited guests offering flexible

access to online resources via laptop, tablet and Wi-Fi enabled phones. Our facilities are consistently rated among the top three of all computing schools in the UK, by students voting in the annual National Student Survey.

Development

You may have participated in a process of Personal Development Planning (PDP) during your previous studies or in the workplace. During your Master's course, PDP is designed to help you to adjust to the intensity and level of study and to build on and enhance the variety of skills which you will have developed during your previous studies and work experience. PDP will help you to get the most out of your student experience at Cardiff and make your Master's year a success by encouraging you to take responsibility for your own learning and development.

The records you keep as part of the PDP process will constitute a valuable profile of what you have achieved during your time at university, both academically and in a wider sense.

Your personal tutor and dissertation supervisor will support you through the PDP process, and the School will provide you with support, guidance and facilities for recording your achievements and reflective statements.

Postgraduate Study at Cardiff School of Computer Science & Informatics

The School of Computer Science & Informatics aims to educate and inspire the next generation of national and international leaders in the discipline.

We are proud to cater for a diversity of interests, backgrounds and aspirations for graduates from the UK and overseas.

The School has significant experience of running MSc Programmes, both generalist (conversion) and specialist. This portfolio of MSc programmes has recently been updated to ensure the content is contemporary and relevant, placing emphasis on both research-led teaching (through specialist modules and programmes) and employability. The design of the new postgraduate taught course portfolio has been influenced by feedback from alumni, and industrial and academic experts.

Many of our degrees are professionally accredited by the BCS, the Chartered Institute for IT. Ensuring that our degrees are relevant to the latest demands from industry is a further highly regarded endorsement for potential employers.

The portfolio has been designed to allow students to select the option that best fits their interests and career aspirations. The School offers conversion Master's degrees which provide the opportunity to transfer to a career in computing, whilst the specialist Master's programmes provide graduates of computing with the opportunity to enhance their knowledge, skills and understanding, through modules taught by research experts in a given area.

Postgraduate Research Degrees

The School offers cutting edge research degrees that offer you the opportunity to become part of a strong, dynamic and internationally successful research school. The exciting development of our new MRes degrees are aimed at students who are more orientated towards a research career. For full details about our internationally recognised research areas and about studying for our MRes or PhD degrees, please see pages 24-27.

Postgraduate Taught Degrees

We offer a variety of challenging and stimulating Master's degrees that are suitable for students with diverse academic backgrounds.

Specialist Masters Programmes

Our MSc's in Advanced Computer Science and Information Security & Privacy are for students who have completed a degree in computer science or related subject. These degrees will allow you to hone and expand your existing skills to an advanced level, so you will graduate with specialised expertise at the forefront of your chosen field.

Conversion Courses

We offer two distinctive conversion Master's programmes, each with a particular flavour and focus which have been specifically designed for graduates who want to move into computing from another discipline. MSc Computing offers a structured programme of study which will allow you to enter a broad range of computing jobs and roles. The introduction of our MSc Computing and IT Management caters for those who wish to focus more on the managerial aspects of modern computing systems and their interaction with organisations.

Joint Degrees

This MSc Computational Journalism is a joint honours degree with Cardiff School of Journalism, Media and Cultural Studies. It develops knowledge and skills through research-informed learning in digital journalism, data science, computer coding and digital development.



Programme	Type	Part Time	Full Time	Details
MSc Advanced Computer Science	Specialist	3 Years	1 Year	
MSc Advanced Computer Science with Placement *	Specialist	Not Available	2 Years	Pages 12-13
MSc Information Security and Privacy	Specialist	3 Years	1 Year	Pages 14-15
MSc Computing	Conversion	3 Years	1 Year	
MSc Computing with Placement *	Conversion	Not Available	2 Years	Pages 16-17
MSc Computing and IT Management	Conversion	3 Years	1 Year	
MSc Computing and IT Management with Placement *	Conversion	Not Available	2 Years	Pages 16-17
MSc Computational Journalism	N/A	Not Available	1 year	Page 18
MRes / PhD	Research	Not Available	1 Year	Page 27

* Our two-year "with Placement" programmes give you the opportunity of gaining 7-10 months professional work experience on a salaried placement (further details on page 19).

Diploma Stage Module Structure for our Master's Programmes

Autumn Semester			
Advanced Computer Science	Information Security and Privacy	Computing and IT Management	Computing
Security Techniques			Software Engineering
Programming Paradigms	Secure Applications, Identity and Trust	Information Processing in Python	
High Performance Computing			
Pattern Recognition and Data Mining			
Visual Computing		Computational Systems	
E-Commerce and Innovation		E-Commerce and Innovation	
Information, Networks and Cyber Security			
		Business and IT Management	

Spring Semester			
Advanced Computer Science	Information Security and Privacy	Computing and IT Management	Computing
Programming Paradigms			Software Engineering
Informatics	Business and IT Management		Object Oriented Development with Java
Computational Operational Research	Secure Applications, Identity and Trust		
Web and Social Computing			
E-Commerce and Innovation		E-Commerce and Innovation	
Distributed and Cloud Computing			
Human Centric Computing		Human Centric Computing	
Digital Forensics		Information Modelling and Database Systems	

2015/16 Academic Year

Enrolment Week
Monday 21 September 2015 to Friday 25 September 2015

Autumn Semester	
Semester Dates	Start: Monday 28 September 2015 Finish: Sunday 24 January 2016
Christmas Recess	Start: Saturday 12 December 2015 Finish: Sunday 3 January 2016
Examination Period	Start: Monday 11 January 2016 Finish: Friday 22 January 2016

Spring Semester	
Semester Dates	Start: Monday 25 January 2016 Finish: Friday 10 June 2016
Easter Recess	Start: Saturday 19 March 2016 Finish: Sunday 10 April 2016
Examination Period	Start: Monday 9 May 2016 Finish: Friday 10 June 2016

2016/17 Academic Year

Enrolment Week
Monday 19 September 2016 to Friday 23 September 2016

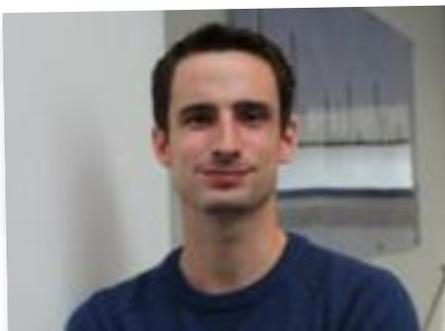
Autumn Semester	
Semester Dates	Start: Monday 26 September 2016 Finish: Sunday 22 January 2017
Christmas Recess	Start: Saturday 10 December 2016 Finish: Sunday 1 January 2017
Examination Period	Start: Monday 9 January 2017 Finish: Friday 20 January 2017

Spring Semester	
Semester Dates	Start: Monday 23 January 2017 Finish: Friday 9 June 2017
Easter Recess	Start: Saturday 8 April 2017 Finish: Sunday 30 April 2017
Examination Period	Start: Monday 8 May 2017 Finish: Friday 9 June 2017

MSc Advanced Computer Science



Designed for computing graduates who wish to differentiate themselves further through an advanced mastery of the discipline.



Programme Leader:
Dr Matthew Williams

Email:
M.J.Williams@cs.cardiff.ac.uk

Phone:
+44 (0)29 2087 4683

"This MSc focuses on advanced topics in Computer Science, with an emphasis on subjects which reflect the research strengths of the School. We look forward to working with students from a technical background for this advanced qualification."

This flagship programme offers exposure to state-of-the-art topics that are driving key technological developments and trends.

You can opt for a two-year programme on this course and apply for a paid 7-10 month work placement (see page 19 for further details).

The course

Computer Science is one of the fastest moving academic disciplines, and the outcomes of research and innovation in this field have a massive social impact. The subject spans all aspects of modern life, and this programme offers you the opportunity to apply new skills and advanced techniques to the area of your choice, whilst allowing you to demonstrate that you are at the forefront of your discipline.

This MSc programme will allow you to hone and expand your existing skills whilst

demonstrating independent learning through the duration of the course.

Core to this programme is the opportunity to further develop the scope of your problem solving skills by studying advanced programming languages and new programming paradigms. A module in e-commerce and innovation will enhance your transferable skills and employment prospects. You will choose to study optional research-led modules that allow the freedom to build a distinctive personal portfolio of skills and knowledge. These are structured around advanced topics in the School's three core research areas: Informatics, Visual Computing, and Distributed and Scientific Computing

main image: Cardiff University's ARCCA (Advanced Research Computing @ Cardiff), SRIF-3 Cluster, codenamed 'Raven', that is enabling and transforming research across the University

The subject spans all aspects of modern life, and this programme offers you the opportunity to apply new skills and advanced techniques to the area of your choice.



During the summer months you will undertake an individual research project and complete a dissertation under the supervision of a number of academic research staff. The topic will be driven by your own interests. 60 credits of the 180 credit programme concern the dissertation and individual supervision. The programme is delivered in our cutting edge learning facilities, which are consistently voted as among the best in the UK by students.

Successful graduates will be able to demonstrate to employers both a deep understanding and broad knowledge concerning state-of-the-art computer science from a research and development perspective.

Graduates from this course will be ideally placed to pursue a number of careers such as systems architects, programmers and software developers, and will be in a strong position to pursue a research career via doctoral studies.



MSc Advanced Computer Science Modules		Semester	Credits	MSC CS	Assessment Schedule	
Module Code	Module Title				Coursework	Examination
Key: A - Autumn S - Spring AS - Both semesters ■ Compulsory Module ● Optional Module						
CMT302	E-Commerce and Innovation	AS	40	■	100%	
CMT304	Programming Paradigms	AS	20	■	50%	50%
CMT104	Information, Networks and Cyber Security	A	20	●	100%	
CMT105	Security Techniques	A	20	●	30%	70%
CMT106	High Performance Computing	A	20	●	30%	70%
CMT107	Visual Computing	A	20	●	30%	70%
CMT108	Pattern Recognition and Data Mining	A	20	●	50%	50%
CMT111	Web and Social Computing	S	20	●	30%	70%
CMT202	Distributed and Cloud Computing	S	20	●	30%	70%
CMT213	Digital Forensics	S	20	●	30%	70%
CMT206	Human Centric Computing	S	20	●	50%	50%
CMT209	Informatics	S	20	●	50%	50%
CMT211	Computational Operational Research	S	20	●	50%	50%
Optional Module Selection		A		40 Credits		
		S		40 Credits		

MSc Information Security and Privacy



Programme Leader:
Professor Omer Rana

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"With our increasing reliance on information services that are provided over distributed computing infrastructures (such as Cloud computing and mobile/handheld devices such as Android phones), information security has become one of the most significant challenges for both consumers and providers of such services. The increasing use of social media and microblogging platforms also introduces security and privacy concerns that must be acknowledged and responded to. This MSc will equip students with an understanding and awareness of security and privacy issues in a business context, along with skills using techniques and software tools to address some of these concerns."

Appropriate security measures are an essential part of any modern enterprise.

A detailed understanding of the key threats and techniques for ensuring security, privacy and trust are fundamental requirements for successful information systems. Professionals in this field are well placed for a wide variety of employment opportunities.

The course

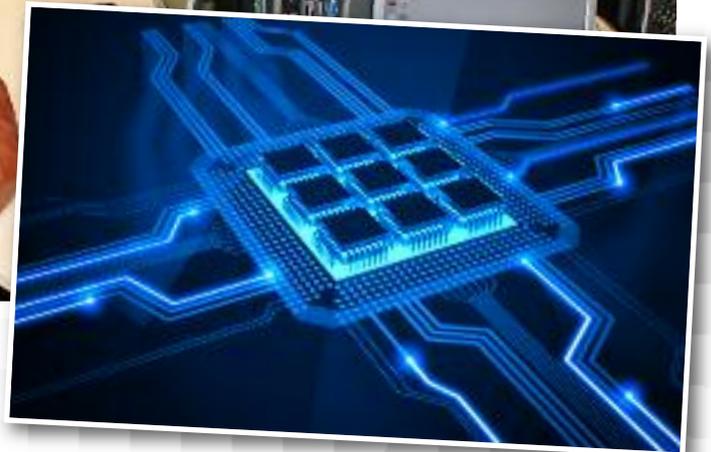
This programme addresses the key security issues that are faced by global communications and information systems. The programme provides a mix of business context with core security, trust and privacy issues that challenge the IT sector. As well as studying themes such as trust and identity and forensic investigation, security techniques and information, network and cyber security, the programme provides an understanding of the e-Commerce and business environment. This combined business/security approach provides valuable training for interacting with organisations, and understanding their business functions in a deeper context.

Using case based analysis the programme also gives students the opportunity to learn about forensic approaches to investigation across multiple platforms. On a practical level, students have the opportunity to gain external accreditation for use of market leading forensic software, as taught in our "sandpit lab" (see photo on facing page).

The School is one of only five universities in the UK to offer training (at a small additional fee for those students wishing to partake) in Microsystemation XRY, an industry-leading mobile phone forensics tool used by more than 85% of police forces and all major forensics laboratories in the UK and Ireland. We are also able to offer the top 10 performing students from the *ethical hacking* module the opportunity to sit the EC-Council Certified Ethical Hacker (CEH) examination, giving them an industry-recognised accreditation on top of their MSc. We are one of only eight universities in the UK that currently offer this EC-Council CEH qualification.



main image: Our new Forensics and Cyber Security Lab (aka the "sandpit" lab) in which some of your classes will take place



MSc Information Security & Privacy Modules		Semester	Credits	MSc ISP	Assessment Schedule	
Module Code	Module Title				Coursework	Examination
CMT301	Business and IT Management	AS	20	■	100%	
CMT306	Secure Applications, Identity and Trust	AS	20	■	100%	
CMT104	Information, Network and Cyber Security	A	20	■	100%	
CMT105	Security Techniques	A	20	■	30%	70%
CMT202	Distributed and Cloud Computing	S	20	■	30%	70%
CMT213	Digital Forensics	S	20	■	30%	70%
Optional Module Selection		A S		N/A 20 Credits		

MSc Conversion Courses

MSc Computing

Designed for graduates who want to move into computing from another discipline, this one-year programme attracts students from diverse career and subject areas who wish to be introduced to the skills required for a career in Software Development. The MSc Computing programme provides students with an appropriate balance of the software engineering skills and technical abilities needed to develop effective software and systems. This course is recognised by BCS, the Chartered Institute for IT.

To enhance your CV further you can opt for a two-year programme and apply for a paid 7-10 month work placement (see page 19 for further details).

The course

Through this programme you will get a first hand understanding of the vital problem solving role of software, the interdisciplinary opportunities available and what computational systems can achieve. You will learn, practice and demonstrate the professional skills required by all software engineers, individually or as part of a team, when developing a software solution.

Through a gentle introduction and intensive support, you will be introduced to programming skills using important languages such as Java™ and Python™. The set of compulsory modules is rounded off with a module on e-commerce and innovation aimed at equipping students with an understanding of new business opportunities and how to approach the tasks associated with researching and setting up a high-tech business or social enterprise venture.

A choice of taught optional modules allows you to develop skills in SQL (Structured Query Language) for advanced database functionality using industry standard products such as Oracle™, or to learn about the exciting new area of distributed and cloud computing.

Finally 60 credits of the 180 credit programme concern a dissertation with individual supervision.

MSc Computing and IT Management

Designed for graduates who want to move into computing from another discipline, this one-year programme provides you with a broad technical knowledge and a sound business context for managing IT systems. These are required to meet fundamental IT sector needs such as planning major projects or improving business processes, and are essential for those with aspirations of a management role in the IT sector.

To enhance your CV further you can opt for a two-year programme and apply for a paid 7-10 month professional work placement. (see page 19 for further details).

The course

Through this programme you will get a fundamental understanding of software development and supporting technology relating to programming and database management. You will understand the professional skills required to lead IT managers, individually or as a part of a team, working on business change projects.



Programme Leader:
Miss Helen Phillips

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"The School is proud to introduce this redeveloped MSc Computing course, building on the success of a long standing postgraduate programme, which in the past, has seen students move into career areas such as web development and software development, whilst others have selected to remain in academia to do research degrees. We are looking forward to working with students holding various first degrees in either an arts or science subject, and introducing them to the discipline of computing."



Our MSc Conversion programmes are designed to take graduates from non computing backgrounds who wish to pursue a career in the industry.



Programme Leader:
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"MSc Computing & IT Management is for students whose first degree has little or no computing content. It builds on the strengths of our successful MSc Computing but offers a stronger business focus. We are looking forward to working with students who want to expand their knowledge and practical skills to enable them to develop and manage business applications and information systems for organisations."

With an emphasis on how computational systems can support business operation and the role of e-commerce, you will understand in detail the dependency between business operations and IT systems. You will be made aware of the challenges in IT management and develop an appreciation of the many factors on which successful IT projects depend.

In addition to being taught industry standard products like ORACLE™, you will

have the option of learning about new and emerging technologies, such as cloud computing, that are radically changing the opportunities and threats for the provision of IT systems. You may also opt for human centric computing which focuses on defining and delivering effective information systems from a human centric perspective.

Finally 60 credits of the 180 credit programme concern a dissertation with individual supervision.

MSc Modules		Semester	Credits	MSc Computing	MSc Computing & IT Management	Assessment Schedule	
Module Code	Module Title					Coursework	Examination
Key: A - Autumn S - Spring AS - Both semesters ■ Compulsory Module ● Optional Module							
CMT301	Business and IT Management	AS	20		■	100%	
CMT302	E-Commerce and Innovation	AS	20	■	■	100%	
CMT303	Software Engineering	AS	20	■		100%	
CMT102	Computational Systems	A	20	■	■	30%	70%
CMT103	Information Processing in Python	A	20	■	■	50%	50%
CMT202	Distributed and Cloud Computing	S	20	●	●	30%	70%
CMT205	Object-Oriented Development with Java	S	20	■		30%	70%
CMT206	Human Centric Computing	S	20	●	●	50%	50%
CMT207	Information Modelling and Database Systems	S	20	●	■	50%	50%
Optional Module Selection		A		N/A	N/A		
		S		20 Credits	20 Credits		

MSc Computational Journalism



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+44 (0) 29 208 74767

 [@MScCompJCardiff](https://twitter.com/MScCompJCardiff)

MSc Computational Journalism is an innovative new joint honours degree delivered by Cardiff University's respected and distinguished Schools of Journalism, Media and Cultural Studies and Computer Science & Informatics.

The programme focuses on the development of knowledge and skills through research-informed learning in digital journalism, data science, computer coding and digital development.

During this 1-year, full time programme, you will benefit from a combination of lectures, seminars and workshops to develop your skills in an open, discussion driven environment.

You will initially gain a solid foundation in journalism and computing, before specialising in your areas of interest and finally completing a practical and research based dissertation project using the unique skills that you have acquired.

A joint honours degree with Cardiff School of Journalism, Media and Cultural Studies.

- ▶ the perfect foundation for a career at the forefront of digital journalism
- ▶ designed to respond to a shortage in skills reported by employers
- ▶ built to develop professional writing and editorial skills
- ▶ delivers specialist training to understanding data, coding and web application development

Who should study this course?

The Master's degree in Computational Journalism provides the perfect vantage point from which to succeed in the world of digital journalism. No previous knowledge of computing is necessary and the programme is open to graduates from any discipline.

This MSc is ideal for recent graduates looking for specialist skills in digital journalism and coding that are proven to be in demand by leading organisations.

- ▶ *This innovative programme is the first of its kind in the UK and is supported by leading industry bodies such as the Financial Times, the BBC and the Office for National Statistics*
- ▶ *An exciting guest lecture series will feature leading figures in the world of digital journalism and computing*
- ▶ *Specialist modules include science reporting, business journalism, crisis reporting, visual communication and information design*

Course structure and modules

The course is structured in three phases – Foundation, Application and Specialisation, Dissertation – in order to support students in the development of skills and knowledge in the key aspects of the course. Each student is appointed a personal tutor to support them during their studies.

Semester 1 – Foundation phase

Core modules:

- Information Processing in Python
- Web Application Development
- Digital Journalism
- Reporters and the Reported

Semester 2 – Application & Specialisation

Core modules:

- Digital Investigation

Optional modules:

- Computing (choose one)
 - Web and Social Computing
 - Human Centric Computing
 - Visual Communication and Information Design
- Journalism (choose two)
 - Reporting Business, Finance and Economics
 - Reporting Health and Science
 - Global Crisis Reporting
 - Managing Print in a Digital World

Semester 3 – Dissertation project

Professional Placement

An opportunity to put theory into practice and gain valuable real world experience.

Our School is one of only a few in the UK to offer postgraduate work placement opportunities in the field of Computer Science and Informatics.



The School works alongside professional placement consultants to ensure you have access to a broad variety of opportunities ...

Professional Placements

To ensure you really stand out from the crowd in the competitive job market, we offer students the valuable opportunity to undertake your Master's degree over two years with a salaried placement.

The aim of our With Placement degrees is to provide you with the opportunity to gain valuable work experience as part of your Master's programme. Employers recognise the mutual benefits to be gained by giving students the chance to learn within a working environment before you progress your career.

How does it work?

Your placement will normally last between seven and ten months, normally taking place at the end of the Spring Semester in July between the taught elements of the course and your final dissertation, allowing you to practice the new skills you have learned and apply the knowledge you have acquired, in the workplace.

You will return to university following successful completion of your work placement at the start of the Summer semester the following year to undertake your individual project and write your dissertation, with the aim of completing the course within 24 months of entry. A further benefit of choosing our Placement option is that you will have the opportunity to draw upon the practical real life situations you encounter during your industrial experience and incorporate it into your final dissertation.

Whilst students are responsible for finding their own placements, the School works alongside professional placement consultants to ensure you have access to a broad variety of opportunities, and that you receive constant support and guidance throughout the whole process. This will begin with a series of workshops and talks provided before the industrial experience to give advice on applying for a placement and on preparing you to get the most from your placement opportunities.

Overseas placements

If you are an international student, it is possible for work placements to be undertaken overseas, allowing you to carry out your industrial placement in your home country if you are able to secure a suitable position. Suitable overseas placements can also be taken by Home and EU students. As with UK placements, this would be subject to the Board of Studies deeming the placements as suitable. Under current UK BA Tier 4 visa regulations International students can undertake paid work for up to 50% of their visit duration, so students enrolled on the two year programmes "with placement" will have a valid visa to work in the UK for their placement period. Tuition fees are set a reduced rate of the maximum full-time tuition fee for students undertaking the work placement.

Further information

Students who are registered on a With Placement programme but who are unable to secure a suitable placement within a company, will transfer their registration to the equivalent degree programme without placement and continue their studies in the Summer semester by undertaking their individual project, and subject to satisfactory performance will graduate within one year of commencing their studies.

It is expected that students on placement will be paid by the companies or institutions for the duration of the placement.

The School does not guarantee that a placement can be found for all students.

The placement you secure will also need to be deemed suitable by the Board of Studies.

Professional Accreditation

Core to the placement will be the ability to demonstrate competency to Level 4 in one or more of the Professional Skills from the Skills Framework for the Information Age (SFIA) framework, the world's most popular definition of IT skills. During the Placement students will engage in Continuing Professional and Personal Development activities.

The placement therefore provides a strong platform for post-MSc future personal development planning to enable students to continue to develop their skills to Level 5 in the SFIA framework, which is required for Chartered IT Professional Status under the BCS – The Chartered Institute for IT.

Postgraduate Student Support Services



You might be wondering what life is like for the 28,000 students at Cardiff University?

Outside of academia you will find a vast range of opportunities to try new things, meet new people and enjoy the exciting atmosphere on campus.

The Students' Union

- ▶ The University's social life revolves around an organisation called "The Students' Union".
- ▶ Every student enrolled at Cardiff University is automatically a member of Cardiff Students' Union.
- ▶ The Union is run by a committee of students and is dedicated to the social and welfare needs of all students on campus. All profits made go back into improving the services available to you.
- ▶ The Union building includes a bar, nightclub, concert venue, shopping mall, cafés and an advice centre.
- ▶ The Union runs its own student newspaper, magazine, radio station and television station.

The Lounge

Built with international students in mind, within the Students' Union and is open to all, free of charge. It boasts of state of the art multimedia stations with Skype and VOIP capabilities, versatile work spaces, modern meeting rooms and touch screen tables giving students access to international channels and games.

Student societies

The best way to make friends is to join a "student society". These clubs are very important to student life and are run by other students. There are more than 120 societies, many of which represent areas of the world including: Arabia, China, Malaysia, India, Pakistan, Nigeria and many more.

For two weeks every year the international societies celebrate "Go Global" – a festival that showcases the University's diversity involving dance, music and food.

Global Opportunity Centre

The Global Opportunity Centre provides a dedicated resource and source of expertise for all of the opportunities available at Cardiff University for students to gain an international experience.

We can support you if you are considering, or currently spending, a period of time abroad on a study or work placement, or if you are interested in taking part on short-term programme including, study, work and volunteering opportunities.

We also provide support for incoming International and European exchange students.

Languages for All

Learning a language is your opportunity to think beyond your horizons and open up a world of new destinations, inspiring cultures and exciting career options.

The new Languages for All programme offers all undergraduate and postgraduate students the chance to gain invaluable language and cultural skills for free during their studies at Cardiff University. With a flexible choice of study options including weekly and intensive courses taught by native speaking language teachers, as well as independent study, the programme is designed to fit around your normal degree course.

We cater for a range of abilities and currently offer a range of languages. Among them are French, German, Spanish, Italian, Japanese and Mandarin. Additional options such as Arabic, Russian and Swedish will be offered in the future.

More information about the Languages for All programme including details on how to enrol for a course can be found on the website: www.cardiff.ac.uk/languagesforall. For all other enquiries, please contact languagesforall@cardiff.ac.uk.

The International Office aims to make your transition as smooth as possible with an "induction programme" in September and January

Sport & keeping fit

The University takes sport very seriously, and the Athletic Union runs 60 sports clubs and arranges fixtures against other universities. Almost every popular sport is played at the University and whatever your level you will find an opportunity to play and participate.

Supporting you

The University knows that while you are here you may need some help. You might have an academic question, or you might have a more personal issue.

Cardiff University offers support in many ways:

- ▶ Every student at the University is allocated a personal tutor. Your tutor can assist with any academic or personal problems you may have.
- ▶ The Student Support Centre has specialist international advisers who can help you with visas, housing, finances and anything which you would like to talk about:
www.cardiff.ac.uk/studentssupport
- ▶ If you want to talk to someone outside the University, the Students' Union also has an advice centre.

- ▶ Cardiff University is one of only a few UK universities to provide postgraduate students with dedicated social, training and academic facilities at the University's Graduate Centre:
www.cardiff.ac.uk/gradc

Orientation for International Students

Before you arrive at the University you may be worried about settling in, making friends and life in the UK. The International Office aims to make your transition as smooth as possible with an "induction programme" in September and January.

The September induction programme includes:

- 1 A free collection service from Cardiff and Heathrow airports. International Office staff will provide a warm welcome at the airport and take you and your luggage to your accommodation.
- 2 Practical information and fairs to help you settle quickly into living and studying in Cardiff.
- 3 Tours of the University and the city of Cardiff to help you find your way around.

- 4 Social events and parties including traditional Welsh dancing. These are a great way to make friends.
- 5 A bank letter service to help you open a bank account when you arrive in the UK.
- 6 A coach tour of South Wales. Visit some of Wales' historic monuments with the International Office.



Getting involved at the School

We pride ourselves on our reputation of being a small, inclusive, friendly School, and recognise the importance of giving our students the opportunity to take part in extra activities if they wish. As the majority of our current students and successful graduates say, the more you put in during your time at university and get involved, the more you will get out of your experience with us.

We have a dedicated Teaching Operations Team especially for postgraduate taught students, who are responsible for the day to day management of the Master's Programmes. The team organises a series of activities to support you during your time studying with us.

A warm welcome

This starts with a two-day induction and welcome to the School. You will receive information about the School, our programmes and facilities as well as getting an opportunity to meet other Master's students and staff over lunch. We also run Information Literacy workshops with a Library Specialist to help you effectively search and use high quality references for your Master's studies.

Tell us what you think

We believe that providing suitable feedback mechanisms is crucial to ensure that the best programmes of study are available to our students. We hold regular student-staff coffee mornings where students have the opportunity to discuss their views about their programme and raise any concerns. The School also has a student/staff panel consisting of members of teaching staff and elected student representatives who meet to discuss academic issues. Any issues that you feel need attention can be highlighted to your student representative, who will raise the query with the panel.

Enhance your experience

We organise talks and events that we think will be of interest to you and add even further value to your learning experience with us. These can include inviting former students back to talk about their project experience and give advice for students about to start their projects.

Master's students are also invited to the regular research talks and seminars organised by the School, which can range from informal discussions between the School's research groups (see pages 24-26 for further information), to prominent high profile speakers leading a lecture in their field of expertise.

A number of our students also attend talks organised locally by BCS, the Chartered Institute for IT, which the School enjoys strong links with. Our visit days also prove to be popular and have recently included trips to BT's data centre and the University's Advanced Research Computing Centre.

And finally . . .

Your Master's programme finishes with a Submission party, which is organised to coincide with the Dissertation submission date. This gives you an opportunity to relax over drinks and nibbles with other students and staff, before you finally leave us at Cardiff.

Student Profiles, Alumni and Employability

We recognise that students pursue a postgraduate qualification not only to broaden their knowledge, but to get ahead in the workplace, which is why improving your employability is at the heart of everything we do.

The teaching on our courses will provide you with the practical skills needed to progress your career, whilst talks and networking opportunities with professional guest speakers from our strong corporate connections will give you a real life insight into the industry. The University also offers numerous services to assist you in fulfilling your career goals.

Student Enterprise at Cardiff University:

- This free initiative offers skills development, mentoring events, competitions and business support for students and alumni at Cardiff University. It is home to 'Centerprise', the Cardiff University Student Business Incubator, which gives you support to grow your business ideas. For more details visit: <http://www.cardiff.ac.uk/racdv/students/index.html>
- The Careers Service has a dedicated International Students Career Advisor who offers 30 minute appointments and holds workshops on Employment Regulations and CVs.
- The Careers & Employability Centre is specifically designed to meet student needs and includes an extensive and well-equipped Careers Library with comprehensive information, internet access, computerised guidance programmes and DVD library.

90% of responding graduates between 2010-13 reported to be in employment or further study within 6 months

David Moore from Wales

Software Developer at True Clarity
MSc Computing



I originally studied Psychology at university which I thoroughly enjoyed but didn't want to work in the field directly, so ended up working in a call centre for a large insurance company.

After speaking with colleagues about how frustrating the IT systems we used in our daily work were – specifically that we had to do a lot of manual calculations, I created a simple program in Excel that would help my colleagues to complete their work more efficiently and accurately. I took it into work and showed the management team who were impressed and rolled it out to 1,000 of my colleagues instantly.

It was doing this that made me realise that I would enjoy this kind of solution finding and prompted me to investigate how I could study to acquire the skills necessary to become a software developer.

Cardiff appealed to me for a number of reasons. Firstly, I was local and the campus was very conveniently located for me. Secondly the School had an excellent reputation and a track record of taking people such as myself from zero to novice developer in under 12 months. Thirdly the School was known for having close ties with local businesses that would open doors and provide opportunities not available at other

institutions. Finally the degree content excited me – there was a broad offering of technologies to learn and the ability to shape my own course through the options available in the second semester.

Looking back on the course now the most useful resource for me was the number of companies that came to us to recruit. This started after a month of the course and continued throughout. I took every opportunity I could and as a result ended up with two job offers by April. I didn't fill out any application forms as I had met the company directors on several occasions by the time the interview came around.

In October after the submission of the dissertation I started work at True Clarity. As I said I had accepted a position as a graduate developer in April which took a lot of pressure off the exams and subsequent project. I have been at True Clarity since and have enjoyed every minute. We create high end websites for some of the largest companies in Europe. I have been given the room to grow as fast as I feel comfortable. I have developed rapidly into this role and a lot of this is thanks to the well rounded nature of the MSc course.

Recent graduates from the School's MSc degrees have taken jobs with such high profile organisations as Logica CMG, Corus and Accelero Digital Solutions, or have progressed to other Universities to gain employment or continue research.

Shada Alsalamah from Saudi Arabia

PhD student at the Cardiff School of Computer Science & Informatics MSc Strategic Information Systems with Information Assurance (now superseded by MSc Information Security & Privacy)



After studying Information Technology in my undergrad from King Saud University, Riyadh, Saudi Arabia, I aimed for an academic research career. Mainly the severe shortage of

female teaching and research staff at the universities in my home country encourages me to become a positive addition in this regard. Therefore, following my graduation, I undertook a teaching assistant position in King Saud University, and worked for about nine months before I relocated to Cardiff to pursue my studies.

My experience at Cardiff University has without doubt satisfied my hunger for knowledge and further developed my skills. The Masters helped me gain a number of key skills. Firstly, good written communication skills in English as a second language were gained where clear, concise essays and reports are essential. Second, verbal communication skills were developed through delivery of presentations. Third, effective contributions as both team member and team leader and, in my studies, being able to work in groups was essential. Fourth, I was able to learn about new tools and methodologies with the utilization of reliable electronic resources and books as sources of information. Finally, the most important skill gained from my MSc degree was self-reliance and working independently, which prepared me well for the doctorate degree (I'm currently doing) where being an independent researcher is essential for my success.

Cardiff University is a prestigious university and is considered one of the very top British universities in the field of computer science. In addition, the School of Computer Science & Informatics has a world-leading and excellent research success rate with appealing research groups that match my intellectual desires as well as needs in my research area.

The Student Support Centre in Cardiff University has a range of services dedicated to helping international students from around the globe to make the most of their student life and offer confidential advice and support for those who need it.

Alongside having a leading university, and a couple of academies for learning foreign languages, Cardiff is a lovely city perfect for touring with families and friends. There are unique attractions, top class entertainment, quality shopping all within walking distance.

Moreover, the transportation system is really affordable and easy to use and provides transport for the whole city and to other cities around the UK.

Satyam Gupta from India

MSc Advanced Computer Science



Technology has always fascinated me throughout my childhood, from 8-bit video games to 64-bit PC Games, from my first programming line '10 REM' in BASIC to my first Scala object at

Cardiff University, I have grown with an inclination toward technology. After completing my Bachelors in India from Uttar Pradesh Technical University, my appetite to learn more about technology brought me here at Cardiff University to pursue Masters in Computer Science. One of the key reasons for choosing Cardiff University over other British Universities was the way Computer Science course was structured; it gave me more opportunities to learn the course both practically and theoretically.

Cardiff University has a very unique positive vibe throughout the campus; one can feel the positivity in air whilst walking through the campus. The entire campus is really clean, modern and installed with latest technology wherever appropriate. The labs are equipped with latest gadgets and software; giving students unrestricted access to latest technologies in labs throughout the campus.

The staff members are highly qualified professionals in their field of expertise and are very friendly; they are always willing to help you dig more. Apart taking normal lectures, the professors do various researches in collaboration with high reputed firms worldwide. As a student at Cardiff University you get a chance to learn about these multinational companies and their projects from time to time through guest lectures and seminars.

Cardiff University recognizes all international students just like other home students; the campus has many social places where you can hang out with your colleagues or friends. Cardiff University's student union was voted second best across the UK in 2013, the student union is a very happening place, with various different things to get involved in. Cardiff University also encourages students to get involved in sports; the sports village is very well equipped with different sport equipment.

Everything is available to you at a walking distance; Cardiff is not expensive and offers you everything you need at a reasonable price.

Pursuing Masters at Cardiff University has given me an opportunity to learn about most of the latest technology that is in use today,

meet new people from different parts of the world, a better insight of how things work in commercial world and has helped me to shape my future as a Software Engineer.

Simeon Ivanov from India

MSc Computing and IT Management



The MSc in Computing and IT Management appealed to me because it offered contemporary skills such as Cloud computing, Ecommerce and Databases, and also

had a Project Management component (Business and IT Management). Additionally, the degree was suitable for students who do not have a first degree in IT, which was perfect for me, as my first degree was Business Studies. Another reason I chose Cardiff was its high position in the university league tables.

I really enjoyed networking with other students – the group work sessions enabled me to find new friends, who shared my interests in programming. The high quality teaching is another highlight – most of the lecturers have very good experience in industry, making the lectures very useful. A good example was the Cloud computing tutorials, during which we were deploying live Linux virtual servers based in a data center.

After successfully completing my exams, I received an offer of employment from one of the largest IT companies worldwide. I am currently a permanent employee and my job involves using most of the skills gained during the degree, including the use of JavaScript, as well as knowledge regarding the software development process in general.

I really wanted to start a career in IT and completing an MSc in Computing and IT Management enabled me to achieve this goal. I also learned the importance of gaining a degree from an internationally recognised University, because the good reputation of Cardiff University will boost my CV throughout my career. My current employer valued the contemporary skills such as Cloud Computing and XML, combined with my interpersonal and communication skills.

If you are interested in computing, IT, or want a great career, the School of Computer Science and Informatics is the right first step. The course has prepared me very well for a career in the IT field, while the quality of teaching and the good reputation of the university is something which has definitely added to my CV and helped my career prospects.

Research

Research in computer science and informatics is all about going beyond current knowledge and technologies to build the computing systems of the future.

Technologies we now take for granted, like the Web, smartphones, and databases, are all products of past research in computer science and informatics.

So what will the future bring?

School of Computer Science & Informatics Research Groups:



Distributed & Scientific Computing
led by
Professor David Walker



Informatics
led by
Professor Alun Preece



Visual Computing
led by
Professor Ralph Martin

Researchers here at Cardiff are currently working on new developments in areas like computer graphics, data mining, and 'intelligent' mobile systems. We hope that our research will enable new kinds of computing applications, products, and systems to help people in areas like healthcare, the environment, security and business. Conducting research in computer science and informatics is exciting and challenging - and we hope that reading these pages will make you want to find out more by visiting our website.

Research in the School is organised into three Research Groups. Each one is led by a distinguished professor and is made up of academic staff, research assistants, and postgraduate research students. The groups provide a 'home' for researchers, allowing them to exchange ideas, get support, and often work together on projects. All postgraduate research students are expected to participate in their group, for example by giving presentations on their own research, or giving feedback to fellow students and other group members. Over the course of their studies, postgraduate research students will normally publish a number of papers that will help them work towards their thesis.

To be successful, these papers will contain new ideas and research results that will go beyond current knowledge in computer science and informatics. The student's supervisors will help them develop these ideas and get their results. The other members of the student's research group will help them communicate and improve their ideas and results.

You'll find out more about the activities of the three Research Groups on the following pages. Some areas of research in computer science and informatics relate to more than one group. For example, research in mobile computing involves staff and students from both the Distributed & Scientific Computing and Informatics groups. Every postgraduate student has a 'home' group, but may benefit from supervision and interaction with people from more than one group. This creates a more exciting and stimulating research environment for our students to study in.

There are also 'multi-disciplinary' research areas where postgraduate students are supervised by academic staff from more than one school. For example, we often collaborate with the Medical School on projects including computing and health technologies.



Name:
Dr. Gualtiero Colombo

Dr Colombo completed his PhD on 'A decomposition approach for the Frequency Assignment Problem' in 2008. He now works as a Research Associate for Cardiff University.

"During my PhD I applied novel solutions to solve large instances of the frequency assignment problem. This is a complex problem of great importance to radio-communication that cannot be solved exactly for large-scale problems that occur in practice. The combined application of heuristics methods and partitioning techniques were able to provide very good performance on a time and quality scale.

Subsequently I have been involved as a researcher in two European projects in the area of mobile and social computing. One of my main research contributions concerns the exploration and exploitation of social networks for the delivery and acquisition of content in a mobile pervasive environment, focusing on issues such as cooperation and trust. I am currently involved in a research project investigating new approaches for embedding self-awareness in ICT systems, based on human cognition inspired techniques."

Distributed & Scientific Computing

The Distributed & Scientific Computing group is focused on developing efficient techniques for large scale problems. Our interest in this area is strongly motivated to solve practical, real-world problems and issues, reflected in a high level of interdisciplinary collaborations. These have led to advances and applications of our work in a wide range of fields, from medicine to wireless communications.

Some examples of the group's work includes:

Technologies for Communication and Collaboration

Distributed computing covers a wide field of study, but in essence addresses large computational problems by dividing them into subtasks which are farmed out to be solved on autonomous nodes, either remote or local. Part of our work here covers composing web-services to encapsulate and broker remote computational capabilities along with developing approaches to exploit these within workflows, for example to manage, process and interact with massive medical data sets. The theme of large scale data is also at the core of our research into Grid related technologies for e-Science. Here we specialise in novel visualisation and simulation techniques, together with innovative distributed problem solving environments. We also consider decentralised approaches to operation and management, critical in exploiting distributed and mobile systems, such as mobile peer to peer and opportunistic networking.



Intelligent Techniques for Problem Solving

Complex optimisation problems requiring efficient, intelligent solution techniques occur in a wide range of important fields. As an example, consider planning the layout and scheduling of a system of bus routes, where approaches have to balance many competing technical and economic constraints, such as cost, capacity, frequency and reliability. Our expertise is in developing scalable algorithms capable of quickly and effectively solving this class of

computationally hard combinatorial problems. With a focus on industrially relevant problems, our research covers an expanding range of applications, including green logistics, wireless network design, scheduling and load balancing.



Informatics

Informatics is the science of information. Informatics is at the core of all systems that store, process, and transmit information. Research in informatics at Cardiff focuses on new ways of modelling information, integrating information, and getting the right information to the right people at the right time. Many of our informatics researchers test their new ideas in particular application areas, like health care, the environment, or business.

Some examples of groundbreaking Informatics research at Cardiff:

- Our researchers came up with a new way to manage information to help teams of medical specialists care for cancer patients, and our ideas are now built-into the main computer system for cancer care in the Wales National Health Service.
- We designed the definitive database of all the world's animal and plant species, used to manage and protect our environment. To do this they had to solve problems in how to integrate data from many different, often conflicting, databases across the world.
- We developed a new technique for 'data mining' in medicine that protects the privacy of patients. Data mining is an important way to discover new medical knowledge from data on the treatment of patients. Our research means this can be done without revealing confidential personal information about patients from the 'mined' data.



Name:
Diego Pizzocarò

Diego recently completed his PhD in collaboration between Cardiff University and IBM. He is now co-founder of a startup company in Italy.

"In my PhD, I studied the problem of how best to assign sensors to help users in emergency response situations. When major emergencies like the Japanese earthquake happen today, there are many kinds of sensors that can help get vital information to users such as rescuers, firefighters, and medical teams. Sensors can be simple phone cameras, specialist devices like radiation detectors, or complex systems like drone aircraft. The problem I studied in my PhD is how to choose the best sensors where different users have different needs, and there may not be enough sensors to satisfy every user. This is a hard problem to solve in real-time. I designed an 'intelligent' algorithm that can run on a smartphone and cope with rapidly-changing situations."

We are interested in a broad range of Informatics topics, including:

- Data/knowledge mining
- Geoinformatics and spatial information systems
- Healthcare & medical informatics
- Informatics for biodiversity & environmental science
- Information quality
- Information privacy & security
- Ontologies & rule-based reasoning
- Open data and the Semantic Web
- Resilient information systems
- Sensor information processing systems
- Social & mobile computing
- Strategic business information systems

Visual Computing

Visual computing covers computer vision, computer graphics, geometric computing and both image and video processing. There are many applications in this area, and much of our work is inter-disciplinary. The group has had recent collaborations with the Schools of Engineering, Psychology, Dentistry, Optometry and Earth Sciences.

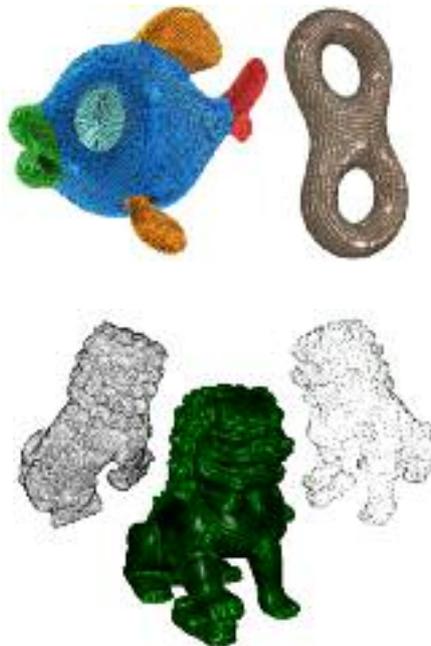
The group has attracted top quality international researchers as staff, and recent collaborations include: University of Cambridge, University of Oxford, Harvard University, University of Southern California, Tsinghua University, Peking University, Seoul National University, Korea University, Aachen University. Industrial links exist with Delcam, Royal Mint, Renishaw, Unigraphics, Airbus, General Dynamics, and QinetiQ.

Recent graduates from the group have gone on to positions in industry (e.g. EADS), government positions (e.g. Office for National Statistics) and university faculty positions.

The group is part of RIVIC (Research Institute of Visual Computing), the only pan Wales computer science consortium, which has been funded by a £5m grant from the Welsh government.

Some examples of major research themes covered by the group are:

- ▶ Reverse engineering of CAD models, i.e. regenerating CAD models from scan data. One of the group's papers on this topic has been cited more than 1000 times.
- ▶ 3D triangle mesh processing, in which algorithms have been developed for manipulating and improving the quality of meshes by noise filtering, segmentation, morphing, texture transfer, parameterization, watermarking and remeshing.
- ▶ Face analysis, in which both static and video sequences of both 2D and 3D data are analysed to develop biometric (recognition) systems and also build perceptual models and stimuli that have then been applied within psychological experiments.



- ▶ The group is working on controlling, modelling, simulating and identifying quantum systems for applications in nano-electronics, photonics, quantum computing, quantum networks, and medical applications.
- ▶ The group is participating in the INSIST EU Marie Curie International Training Network involving. Its objective is the development of the next generation design/simulation methods based on isogeometric analysis.

Examples of active specific research topics within the group are:

- ▶ Human motion analysis
- ▶ Image and 3D shape retrieval
- ▶ Point-based modelling
- ▶ Reverse engineering of solid shape
- ▶ Solid, curve and surface modelling
- ▶ Characterisations and analysis of shape
- ▶ finite element meshing
- ▶ visualisation and analysis of sports data
- ▶ image registration
- ▶ non-photorealistic rendering
- ▶ cellular automata
- ▶ 3D model segmentation
- ▶ data/information fusion
- ▶ Quantum engineering
- ▶ Human perception and vision space rendering
- ▶ Optimal route and reaction design for chemical synthesis (member of the Dial-A-Molecule EPSRC network).



Name:
Jonathan Quinn

Jonathan recently completed his PhD on 'Low-Discrepancy Sampling of 2D Manifolds for Applications in Visual Computing'. He now works within the One Wales Research Institute for Visual Computing.

"During my PhD I investigated the problem of sampling, within the field of Visual Computing. Sampling is a hugely important problem in Computer Science, but more specifically, I considered how to optimally sample 3D models for rendering and mathematical simulations. High quality sampling allows for the simplification of complex models, whilst preserving important features. Simplified models speed up rendering, transmission, and search algorithms, and reduce storage costs. Our solution involved the development of algorithms to reduce the dimensionality of the 3D models, thus reducing the difficulty of the sampling problem."

PhD, MRes and University Graduate College



PhD

PhD study at Cardiff follows three year programmes which aim to provide you with the ability to produce original, novel and significant research findings in your chosen area. We welcome applications with proposals related to any of our research areas. Examples of potential projects can be found at www.cs.cf.ac.uk/research

Although individual PhD projects can follow diverse paths, they generally have a common overall structure. Usually your first year involves an in-depth review of literature and preliminary investigations to develop and refine your research plan. By your second year you should have formulated a clear problem or hypothesis to study, and can plan an appropriate approach to demonstrate your theory. Typically your final year is spent producing experimental results to validate your proposed approach and writing your thesis, which you will defend in a viva.

Each student in the School is guided by supervisors with relevant interests and expertise that is internationally recognised in their field. Annual poster and presentation events for our PhD students allow you to develop your presentation skills and gain valuable feedback on your work, and we encourage and support your participation in national and international conferences over the course of your study. Throughout your PhD you are given the opportunity to develop your technical, communication and project management skills via a range of available taught courses. The School has an excellent

environment for postgraduate students, with well-equipped modern laboratories and a vibrant community of students, both academically and socially.

At the end of your PhD programme, you will have demonstrated your ability as an independent researcher, and will be ideally prepared to pursue a career in academia or industry.

MRes

Our one year MRes programmes are designed for those who are interested in pursuing a research career, but are unsure of which topic to pursue or feel the need to first strengthen their research skills. As such, they give you the opportunity to develop the necessary skills to conduct and publish internationally recognised research while also exploring contemporary topics and techniques in order to refine your research interests.

In contrast to our taught MSc programmes, over half of your time will be spent undertaking a substantial research project of your choice with regular individual supervision. Although you will specialise in one of our research areas, a key element of the programme is interaction with students from different fields and our PhD cohort in order to broaden your awareness of applicable techniques. For the remainder of your time, as well as choosing advanced modules from our MSc portfolio, you will follow modules to develop your critical reading, research and innovation skills, and give you an understanding of the levels of rigour necessary to publish successfully.

At the end of the programme, you will be fully prepared for future research, whether through a PhD at Cardiff, elsewhere, or in industry.

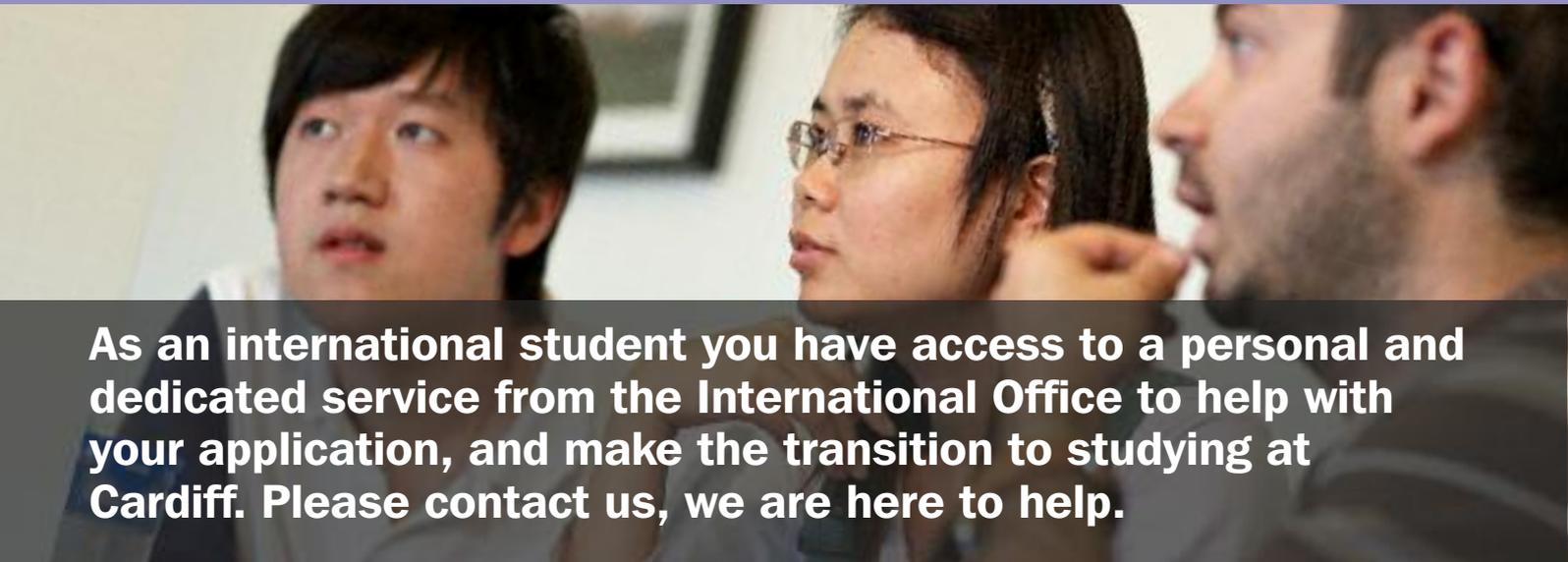
The University Graduate College

The University Graduate College supports the work of our academic Schools and supervisors and enhances the experience of postgraduate research students by:

- ▶ Fostering an intellectually stimulating environment through encouraging postgraduate research students to become part of the wider research community;
- ▶ Providing a comprehensive, integrated skills development programme for research students;
- ▶ Ensuring a quality research experience by working with Schools, supervisors and postgraduate research students to provide information and guidance based on the University's Code of Practice for Research Degrees;
- ▶ Developing the facilities and services for postgraduate researchers.

The formal training available to postgraduate research students is known as the University Graduate College Programme for Postgraduate Researchers.

International Students (Non-EU Countries)



As an international student you have access to a personal and dedicated service from the International Office to help with your application, and make the transition to studying at Cardiff. Please contact us, we are here to help.

Supporting International Students

The University has a long tradition of welcoming international students and prides itself on providing a supportive environment. Some of the benefits for international students studying at Cardiff University include:

- ▶ **Guaranteed accommodation**
Cardiff is one of few universities that guarantees accommodation to single international students for the duration of your course, as long as you apply through the normal admissions cycle and appropriate allocations process. The accommodation is in a variety of high quality student residences which are close to campus. You can find out more on the web: www.cardiff.ac.uk/residences
- ▶ **Help before you arrive**
The International Office will send you detailed information on how to apply for your visa, travelling to Cardiff and the other necessary arrangements you will need to make to prepare for studying in the UK.
- ▶ **The induction programme**
In September and January each year the International Office organises a comprehensive orientation programme for new students. In September this includes free collection from Cardiff and Heathrow (London) airports.
- ▶ **International student advisors**
In addition to the support provided by your School, the University has specially trained international student advisors to provide you with assistance on any issues including visas and finances.

▶ International student societies

The Students' Union is home to more than 20 international student societies. The societies run social and cultural events and organise the annual Go Global international culture festival. There is also space within the Students' Union for students to meet and relax.

▶ International careers advice

The University's Careers Service has a Careers Consultant for International Students, and provides resources to help you research career paths and opportunities.

Meet the International Office in your Country

Staff from the International Office also travel to more than 30 countries each year so you can meet University staff and discuss your study options in person. Additionally staff from the School visit various countries throughout the year so there could be an opportunity to meet a representative from your academic school. Look at the International Office website: www.cardiff.ac.uk/international for more details of where we are travelling, and sign up to receive notifications of visits.

Help Making an Application in your Country

In addition to help provided by the International Office, you can get assistance from the University's network of educational advisors. To find out whether we have an educational advisor near you, visit the International Office website and select your country: www.cardiff.ac.uk/international

English Language Requirements

All students must have a standard of written and spoken English that will enable you to benefit fully from lectures, seminars and tutorials. The English Language qualifications accepted by the University include IELTS, and the minimum standards required are listed on the website. You are advised to check the website for the most up-to-date information:

www.cardiff.ac.uk/postgradapply

Applying to Cardiff University as an International Student

To apply to Cardiff as an international student you follow the standard procedure as outlined on page 32. You do, however, have access to additional support from the International Office.

The International Office

As an international student you have access to a personal and dedicated service from the International Office to help with your application, and make the transition to studying at Cardiff. Please contact us. We are here to help.

Further Information:

Email: international@cardiff.ac.uk

Tel: +44 (0)29 2087 4432

Skype: [cardiffuni_international](https://www.skype.com/username/cardiffuni_international)

Facebook: www.facebook.com/cardiffinternational

Web: www.cardiff.ac.uk/international

English Language Programmes



Our courses help students improve their general English language skills, as well as develop the specific skills needed for British academic study. Cardiff University is also an official British Council IELTS Test centre

Summer Pre-Sessional Programme in English for Academic Purposes

These full-time courses of 8 or 10 weeks are designed to prepare you for academic study at Cardiff University. They combine intensive English language tuition with advice and practical exercises on academic study skills. You learn techniques for listening and note-taking in lectures, discussing ideas and expressing opinions in seminars, succeeding in exams and producing good written work. You will also have the opportunity to prepare for the IELTS exam, if needed. The minimum entry requirement for the Pre-Sessional Course is IELTS 6.0, with a minimum of 4.0 in each sub-score.

The English for University Study Programme: an Academic English Language and Study Skills course

This academic-year programme is designed to prepare students for study at a UK university. It is a full-time English language and study skills course with entry points in September (9-month course), January (6-month course) and April (2-month course). Each entry point has a minimum entry requirement of IELTS 4.0, 4.5 and 5.5 respectively.

The programme is suitable for students who have applied for, or are planning to apply for, a postgraduate taught or research degree in the UK.

The programme aims to improve students' English, allowing them to reach the appropriate level for their chosen academic course, and to give them the study skills to function successfully within their academic school. It is designed to improve English language ability, increase knowledge of academic conventions and provide a smooth progression from English language improvement to academic study.

The programme aims to provide students with a balance of the following elements:

- ▶ An opportunity to improve their general English skills;
- ▶ The necessary exam techniques to achieve the results needed to enter their academic school;
- ▶ The academic study skills required for successful study in their academic school.

In-Sessional Programme: Support Classes in Academic English and Study Skills

Working and studying at an English-speaking university can be very demanding. Once you are enrolled as a full fee-paying international student at Cardiff University, you can select from a range of free and optional English language support classes. You can choose courses to suit your individual needs and, as the courses run part-time, you can fit language development around your university study.

As well as developing your reading, writing, speaking and listening skills, the courses help you with academic writing, examination techniques, listening and speaking, pronunciation, note-taking and seminar skills.

There are also regular writing clinics and workshops. Some schools have their own programmes of academic study skills for international students, specifically developed to meet the needs of a particular course or subject area.

Accommodation

Accommodation for courses is provided in University halls of residence or houses and is guaranteed for pre-sessional students, and English for University Study students starting in September.

Additional Information

We offer small and friendly classes, with a maximum of 14 students. You will find the teaching material is relevant and applicable to life in Britain today. We have well-qualified and experienced staff, who will offer you regular feedback, support and advice to make sure that your individual language needs are addressed.



More online at:

Web: www.cardiff.ac.uk/elt

Funding and Scholarships



Securing funding for postgraduate study is an important consideration for most students. Most funding sources are highly competitive and are subject to various application deadlines.

In most cases, you will need to have received an offer of a place to study in order to obtain financial support, so an early university application is advisable.



Tuition Fees

Tuition fees vary depending on the course you decide to study and whether you are classified as a home, EU or international student. You should check our course listing online for detailed fee information for your course.

To make it easier to manage your finances you can pay in 3 instalments each year.

Cardiff University Postgraduate Studentships

Each year Cardiff University offers a wide range of funded, competitive studentships. Funding sources for these studentships include awards made by individual Academic Schools, the UK Research Councils, collaborations with charities and trusts, industry and businesses, government departments and other bodies.

Studentships become available throughout the year and are published on our website when they become available. There is no uniform application deadline and you are encouraged to follow us on Facebook or Twitter for the latest funding opportunities or sign up to our funding email newsletter.

Awards can range in value from partial funding to full tuition fee support and a stipend to cover living costs. You should check your eligibility for specific studentships carefully; some are restricted to UK/EU applicants and others are open to non-EU applicants.

Funding for International Postgraduates

Cardiff University's highly prestigious International Scholarship Fund is designed to attract and reward the most deserving and exceptional students to the University. A range of Postgraduate scholarships and bursaries are available. We also advise international students to investigate funding opportunities offered by their own country, and to check with the British Council.

Cardiff University is a participating institution in the US Government Federal Family Education Loan Programme (FFELP). US students seeking Federal Stafford Loans for overseas study can study at Cardiff University.



PhD Scholarship in Computer Science & Informatics

Each year the School is normally able to offer a full-time 3 year PhD Scholarship in Computer Science & Informatics in one of the School's research areas. The successful candidate will normally receive an annual stipend in line with the currently recommended EPSRC rate (£13,726 per annum in 2013/14), and the School will pay full-time home/EU tuition fees.

The scholarship includes provision of a laptop or desktop computer, and funds attendance at one national and one international conference during the three years of study.

You should check the School's website to see what PhD Scholarships are available for your preferred point of entry.

Charities, Foundations and Trusts

There are many charities, foundations and trusts that may contribute to your study costs. You will need to apply to these individually and often after having received an offer to study. Many of these are listed in publications such as The Grants Register, the Directory of Grant Making Trusts and the Graduate Prospects Postgraduate Funding Guide.

Loans

Professional and Career Development Loans are the most common loans for vocational postgraduate degrees, but are only available to UK and EU students who have lived in the UK for at least three years before the course starts and plan to work in the UK, EU or European Economic Area (EEA) after the course.

The loan is a deferred repayment bank loan to support further education or training that is interest free up to one month after the end of your course when you start repaying it with interest. You can borrow between £300 and £10,000.

You should apply for your loan up to three months before your course starts.

Cardiff University's Learning Provider Number is 8655.

Working alongside full-time study

If you intend to undertake some paid employment while pursuing full-time study, one option is to register with the Unistaff Jobshop. The Jobshop is run by the Students' Union, and features casual employment opportunities in the University and surrounding area.

Most international students can work up to 20 hours during term-time and full time during the holidays. The University does not recommend you work the full 20 hours during the term because studying in the UK is intensive and you will need to make sure you have enough time to complete all your coursework and reading.

Application and Entry Requirements



Admissions Criteria

We welcome applications from computer literate graduates who have a good honours degree, or equivalent professional qualification in a subject such as Computer Science or a related subject. We are always pleased to consider suitably qualified international applicants.

If your first language is not English you must provide evidence of competence in English. Our standard requirement is an overall IELTS score of at least 6.5 with no area less than 6.0. The University offers English language courses that can help you achieve this.

We are committed to providing equal opportunities and welcome applications from all sections of the community.

Application procedure – Postgraduate Taught / Masters / MRes

Programmes start in September each year but applications are considered as they arrive throughout the year. You apply directly to the University for a postgraduate taught course. You can apply online at www.cardiff.ac.uk/postgradapply or you can download paper application materials from the website. It is recommended that you apply online because it is quicker and you can track your application.

Please feel free to supplement your application with a detailed CV or any other supporting material you may consider to be appropriate.

If you have any questions about the course or the application process please contact the Admissions Tutor, comsc-pg@cs.cardiff.ac.uk

Application procedure – Postgraduate Research / PhD / MPhil

The application procedure for postgraduate research is the same as postgraduate taught (above), however you will also need to include a research proposal. You should also make contact with a member of academic staff who could act as a potential supervisor to your studies.

To do this:

- 1 look at the School website to see if there is a member of academic staff who matches your area of research.
- 2 send the member of staff a short e-mail outlining your area of interest.
- 3 mention on your application form which member(s) of staff you have contacted regarding your supervision.

If you are unsure whether the School is able to offer supervision for your research you can contact us directly: comsc-pgresearch@cs.cardiff.ac.uk

International Students

The University recognises qualifications from all over the world. To know if you would be considered for entry you can:

- ▶ look on the website. We have a dedicated section for many countries. This will give you an overview of qualifications we consider: www.cardiff.ac.uk/for/international
- ▶ contact the International Office.
- ▶ contact an educational adviser. The University has an international network of educational advisers (agents) who give free advice (see the website above for their contact details).

Applying to Cardiff University as an international student

To apply to Cardiff as an international student you follow the standard procedure. You do, however, have access to additional support as detailed on page 28.

Further Information:

Email: postgradenquiries@cardiff.ac.uk
Tel: +44 (0)29 2087 0084
Tel: +44 (0)29 2087 0085



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Facebook: facebook.com/csicardiff

Twitter: [@csicardiff](https://twitter.com/csicardiff)



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