INNOVATIVE IDEAS FOR TOMORROW’S WORLD:

COMPUTING

Postgraduate courses exploring advanced technology from the School of Engineering, Computing and Mathematics
The School of Engineering, Computing and Mathematics (ECM) is a close-knit community of staff and students. With its own dedicated campus near the City of Oxford, in Wheatley, it is equipped with excellent learning and teaching facilities, including state-of-the-art labs, computer rooms and social learning spaces.

The school brings together teaching and research in engineering, computing and mathematics disciplines. This is a lively, progressive and supportive place to study. We want to help you develop your skills into a well-rounded candidate for an ever-increasing number of jobs in the fast-evolving field of computing and its related industries. Students come from all over the world to learn with us and it’s this diverse student population that keeps us focused on the delivery of relevant postgraduate courses.

In light of the recent surge in cyber-attacks, major companies are looking closely at their IT systems to ensure that they are protected from any future vulnerability, which attackers might exploit. In answer to this skills gap we have launched our new course MSc Computer Science for Cyber Security, which has been accredited by GCHQ; it is currently the only one of its kind that has accreditation. Working closely with leaders in industry we develop courses that produce graduates who can contribute with answers to real-world problems in a constantly evolving industry.

A popular feature of our courses is the opportunity to spend a year in industry on a subject-related paid placement. The second year of the master’s course can be taken as a placement year. This time in industry offers you the chance to put theory into practice in a real world situation while you gain valuable experience. We have a dedicated Placements Manager who can help find a good fit for you, and academic staff will support you throughout. Placements are not compulsory, but they are highly recommended.

There is a vibrant research community within the school. Computing research comes under two groups, Dependable Systems Engineering and Intelligent Systems Engineering. Under these two areas the groups cover anything from Software Engineering, Cyber Security, e-Health Robotics, Performance Augmentation and Electronics and Communications projects. Our postgraduate students can contribute to a wide range of projects.

The School of Engineering, Computing and Mathematics brings exciting opportunities to work together - delivering the highest quality teaching and learning, impactful research and best possible student experience in an interdisciplinary context. It is an exciting time to be at Oxford Brookes.

Professor Chrisina Jayne
Head of School
Computing and Mathematics at Oxford Brookes

We have been teaching postgraduate courses in Computing and Mathematics for over 20 years. It is an interesting time to be studying computing and mathematics. The industry has changed substantially over the past few years. Our computing academics and researchers have played a part in the development of the industry.

The industry has faced recent challenges in the form of cyber-attacks and the updates to GDPR law. The industry, therefore, requires graduates who are able to adapt and face these challenges in innovative ways. We have developed a new course in Data Analytics to answer the Government’s priorities within the field of ‘Big Data’. The school has an active industrial advisory board that ensures that our courses are relevant.

Based in the heart of technology valley and near the historical city of Oxford, we are surrounded by leading technology companies, who offer our students and graduates a work placement or the next stage of their career.

We have a close-knit culture within the school with students and staff from all over the world. Students who have studied with us have come from the Far East, India, Russia and all over Europe. Each year the Faculty hosts an International Welcome event, which is very popular with our students. This event gives our new cohort the opportunity to meet other international peers and has helped our students to settle into university life.

Whether your interests are focused on the computer science side of computing, software development or securing our virtual world, we will support and nurture your talent. Come and see where Brookes can take you.

Facilities

The School of Engineering, Computing and Mathematics (ECM) is situated on its own dedicated technology campus, just outside the city of Oxford on the edge of the village of Wheatley. Students have access to our purpose-built facilities, with state-of-the-art workshops, specialist labs and computer facilities.

The campus boasts the latest computing facilities to support your academic and career development. These include networking, telecommunications facilities and an extensive robotics lab and computer-aided design lab.

Robotics Lab

Academics and students within the school are working in this field developing ground breaking projects. Developing the latest cleaning robots for commercial buildings that don’t use chemicals can perform basic tasks, that will save businesses money on employing a cleaner. Using AR to develop a robot that can be taken on medical emergencies where, for example, a surgeon is required but not able to leave the hospital, a robot can go in their place and through AR the surgeon can perform routine operations to help save lives. Another robot being developed is for the elderly, where families can leave the robot with their elderly relative whilst on holiday, and through using AR can check in with their relative to make sure they are okay.

Our lab has a wide variety of robots for students to work on which include:
- Artie, a life-size humanoid robot
- A quad of Nao robots
- The mini bots and quad that are controlled by apps
- BLU is a 3D printed robot which our Robotics students are developing body parts and movement capabilities as part of their course.

Part of the lab includes a suite of 3D printers.

Cyber Security Lab

There are two dedicated secure laboratories which provide students with opportunities to put theory into practice. Students will be able to use the labs to audit an existing network, test security issues on a purpose built IT system, analyse malware and design and implement secure software.

Performance Augmented Lab

This is currently a research area that postgraduate and research students can get involved with. The lab closes the gap between abstract knowledge and practical application.

The lab has a good stock of smart glasses (Microsoft Hololens, Epson Moverio), EMG armbands (Thalmic Labs MYO), 3D scanners and cameras (Occipital Structure sensor, LEAP motion sensor, intel realsense), arduino for e-textiles and other items. This is an exciting new area of the school and real opportunity for students to get involved in ground-breaking projects.

We have a supportive and knowledgeable academic team who will provide the highest standard of teaching. They are also an active research community which gives our students the opportunity to get involved in ground-breaking projects. Within the school we nurture entrepreneurship by giving you the scope to develop your own ideas, research and style.

Uniquely, we have developed entrepreneur modules within our courses. The Innovation Hub provides an integrated approach to employability, research and enterprise within the curriculum, or as part of our students’ broader development. For more details on this see page 13.

The campus boasts the latest computing facilities to support your academic and career development. These include networking, telecommunications facilities and an extensive robotics lab and computer-aided design lab.
Advanced Computer Science

MSc, PGDip, PGCert

Our BCS accredited MSc in Computer Science provides you with a diverse range of skills so that you will be able to produce optimal solutions in complex, multi-discipline projects. These skills are increasingly in demand.

This course is aimed at recent graduates and those with substantial experience in the computing industry who want to gain a qualification that develops their expertise.

- Our programmes are informed by research undertaken in the school.
- Professional experts contribute to the range of subjects on offer.
- You will have the opportunity to put the skills you have gained into practice on the 1 year optional placement.
- You will be joining a school with a diverse and truly international postgraduate community.
- Our programmes develop your technical skills, whether you are a recent graduate or have many years of work experience.

**MODULES**

**You will be studying the following modules:**
- Research, Scholarship and Professional Skills
- Secure Systems Architecture
- Advanced Software Development
- Enterprise Networking
- Data Science and Machine Learning
- Big Data and the Cloud
- Dissertation in Computing subjects
- Placement (optional)

As courses are reviewed regularly as part of our quality assurance framework, modules offered may differ from those listed.

**Students studying for an MSc will also take:**

MSc Dissertation which is an individual research and development project that allows you to study a topic of your choice relevant to your degree in depth, guided by your supervisor. The work may be undertaken in cooperation with a research, industrial or commercial organisation. Your dissertation will be completed over the summer period.

**Admission requirements**

You should normally hold a first degree equivalent to at least a British lower second class bachelor’s degree in a computer-related subject. If your first degree is not in computing but you have worked in the computing industry you can also be considered.

For entry onto the Postgraduate Certificate Research Project you should be able to provide evidence of experience in research and study methods at an appropriate level.

Please also see the university’s general entry and English language requirements at brookes.ac.uk.

**English language requirements**

If your first language is not English you will require a minimum IELTS score of 6.0 with 6.0 in all components. Alternatively an equivalent English language qualification acceptable to the University.

**Research**

The school has an active research community. To find out more about computing research please see page 29 in this brochure or our website: https://www.brookes.ac.uk/ccm/research/computing/

**Careers**

Graduates of this course are employed across a whole range of careers from development roles in small software houses, to the activities of IT departments in large, multinational corporations, to more specialist roles for providers of IT and telecommunications services.

“Compared to my previous university, Brookes gave me the opportunity to focus on what I liked whilst giving my curriculum an international dimension.”

**Before you came to Oxford Brookes what did you study and where?**

Before Brookes, I was studying in Supinfo International University (France) where I graduated with a MSc in Computer Engineering.

**What did you think of the course while studying here?**

I think it was really interesting as a whole. It gave me up-to-date insights in many different areas of the industry, both in theory and in practice.

**What are the best bits of studying at Oxford Brookes?**

As silly as it may sound, it came from the various hardships I came across trying to outdo myself. Retrospectively, it allowed me to achieve what I was capable of.

**What advice do you have for others?**

Take the best out of this great university so you can get confident in your capabilities once getting into the industry.

**After graduating from Oxford Brookes what were the next steps for your career and where are you working now?**

First of all I was hired in an advertising company in central London for a year. This was a great experience. But now, I am back in France (Rennes) where I am a software engineer specialised in web development.

**What so far have been the best moments?**

I guess all of the after works I enjoyed in London with my colleagues. But also, I think that the graduation ceremony was the moment I finally realised my achievements such as my prize for outstanding achievement in the Msc Software Engineering.

**What so far have been the most challenging moments?**

I think it was my decision to go back to France after having spent so much time in the UK.
This programme builds on the knowledge gained in a first degree. We equip you with the advanced computer science and cyber security skills necessary to produce modern secure systems. The theory taught in the lectures is reinforced in the practicals. You have the opportunity to use industry standard tools and techniques in our dedicated security, server and networking laboratories. We provide a safe space for you to practice both offensive and defensive security techniques.

- Provisional GCHQ certification, recognising the high standard of the course
- Dedicated security, server and networking laboratories with enterprise equipment including Cisco switches, routers, firewalls and Dell servers
- Small, dedicated private cloud that allows you to create more complex cyber security scenarios and to investigate cloud security issues
- Access to a wide range of enterprise software to ensure realistic deployment environments
- An emphasis on live projects, alongside group work modelled on industry standard working patterns, giving you the opportunity to develop skills that are directly applicable to the workplace
- Staff with a wide range of expertise in computer science and cyber security
- An opportunity to apply to undertake a placement which enables you to practise and refine your skills within a company or organisation.

**MODULES**

**You will study the following modules:**
- Research, Scholarship and Professional Skills in Cyber Security
- Secure Systems Architecture
- Enterprise Networking
- Malware Analysis
- Operating Systems Security and Development
- Secure Programming
- Dissertation
- Placement (optional)

**If you are studying for an MSc you will also take:**
- MSc Dissertation, which is an individual research and development project that allows you to study a topic of your choice related to your degree or a topic provided by GCHQ guided by your supervisor. The work may be undertaken in close co-operation with a research, industrial or commercial organisation. You will undertake your dissertation over the summer period.

**Admission requirements**

You should normally hold a first degree, equivalent to at least a British lower second-class bachelor’s degree, in an Electronic Engineering, Telecommunications, Computer Science or a related Engineering or Computing degree. Applicants whose first degree is not in these areas, but who have worked in a related industry, and have obtained good relevant experience and programming skills, can also be considered.

**English language requirements**

If your first language is not English you will require a minimum IELTS score of 6.0 with 6.0 in all components. Alternatively an equivalent English language qualification acceptable to the University. Please also see the university’s general entry and standard English language requirements at brookes.ac.uk

**Research**

The school has an active research community. To find out more about computing research please see page 29 in this brochure or our website: https://www.brookes.ac.uk/ecm/research/computing/

**Careers**

This programme allows graduates to undertake a wide range of roles in IT and cyber security. Common careers in this area are IT security professionals, penetration testers, digital forensic investigators, software developers, systems engineers, technical analysts, IT managers, and consultants.

**Food for thought**

- “If you are a foreigner, have a look at the free additional English academic courses which will increase the quality of your work.”

**What advice do you have for others?**

Do not hesitate. It is definitely worth it. If you are a foreigner, have a look at their free additional English academic courses which will increase the quality of your work.

**Before you came to Brookes what did you study and where?**

I did a BSc in Computer Science at Supinfo International University in France, Canada, London and China.

**What made you choose Brookes as a place to study?**

The opportunity to get a double degree as part of a partnership with my previous university is a huge plus. Besides being able to deepen my knowledge in software development makes a big difference. Additionally, the feedbacks from previous students were all positive.

**What did you think of the course while studying here?**

They were really interesting and made me discover several study topics. Having the opportunity to experiment with new paradigms broadened my ability to think out of the box.

**What are the best bits of studying at Brookes?**

The expertise and friendliness of lecturers & staff members really encourage students to give their best. Lecturers do not hesitate to spend extra time to answer questions with enthusiasm. Besides, the administration department members are terribly effective and always manage to accommodate student queries.

**JOEY CLOUVEL**

JOEY CLOUVEL WAS AWARDED THE DEPARTMENT OF COMPUTING AND COMMUNICATION TECHNOLOGIES PRIZE FOR OUTSTANDING ACHIEVEMENT IN THE MSc SOFTWARE ENGINEERING.

Before you came to Brookes what did you study and where?
I did a MSc in Computer Science at Supinfo International University in France, Canada, London and China.

What made you choose Brookes as a place to study?
The opportunity to get a double degree as part of a partnership with my previous university is a huge plus. Besides being able to deepen my knowledge in software development makes a big difference. Additionally, the feedbacks from previous students were all positive.

What did you think of the course while studying here?
They were really interesting and made me discover several study topics. Having the opportunity to experiment with new paradigms broadened my ability to think out of the box.

What are the best bits of studying at Brookes?
The expertise and friendliness of lecturers & staff members really encourage students to give their best. Lecturers do not hesitate to spend extra time to answer questions with enthusiasm. Besides, the administration department members are terribly effective and always manage to accommodate student queries.

“If you are a foreigner, have a look at the free additional English academic courses which will increase the quality of your work.”

What advice do you have for others?
Do not hesitate. It is definitely worth it. If you are a foreigner, have a look at their free additional English academic courses which will increase the quality of your work.

After graduating from Brookes what were the next steps for your career and where are you working now?
I initially wanted to go to the Bay area in the US but their visa process is really constraining as I should have started it a year before. So I’m heading towards Hong Kong which offers great opportunities at your long.

What so far have been the best moments?
Seeing my parents really proud of the accomplishment made me realise that efforts always pay off.

Please note: as our courses are reviewed regularly as part of our quality assurance framework, the list of taught modules offered may vary from the list here.
If your first degree is not in computing but you want to move into IT then our BCS accredited MSc in Computing is designed for you. Our course provides the basis for starting a career in computing and IT, teaching you the fundamentals of programming, hardware, networks and software engineering.

This programme is rooted in real-world and industry-relevant experiences.
- Lecturing staff have extensive experience in research and university teaching, as well as a wide range of previous industrial and commercial backgrounds.
- You will have the opportunity to put the skills you have gained into practice if you choose to undertake our 1 year optional placement.
- You will be joining a school with a diverse and truly international postgraduate community.
- The universal nature of the technical skills developed in our programmes means our courses are of equal relevance to both new graduates and those with many years of industrial experience.

The course will enable you to develop a sound knowledge of computer software development for a range of problem areas, such as interactive websites, stand-alone commercial organisation. You will complete your dissertation over the summer period.

**Admission requirements**

You should normally hold a first degree equivalent to at least a British lower second-class bachelor’s degree, in a non-computing subject. If your first degree contains only a small element of technical computing you can also be considered.

For entry to the Postgraduate Certificate Research Project you should provide evidence of experience in research and study methods at an appropriate level.

**English language requirements**

If your first language is not English you will require a minimum IELTS score of 6.0 overall with 6.0 in all components. Alternatively an equivalent English language qualification acceptable to the University.

Please also see the university’s standard entry and English language requirements see brookes.ac.uk

**Modules**

You will be studying the following modules:

- Data Science Foundation
- Introduction to Machine Learning
- Research, Scholarship Methods and Professional Skills
- Object Oriented Programming
- Software Production
- Modern Computer Systems
- Cyber Security and the Web
- Dissertation in Computing subjects
- Placement (optional)

As courses are reviewed regularly as part of our quality assurance framework, the list of taught modules you choose from may vary from the list here.

**Students studying for an MSc will also take: MSc Dissertation** which is an individual research and development project that allows you to study a topic of your choice in depth, guided by your supervisor. The work may be undertaken in close co-operation with a research, industrial or commercial organisation. You will complete your dissertation over the summer period.

**Research**

The school has an active research community. To find out more about computing research please see page 29 in this brochure or our website: https://www.brookes.ac.uk/ecom/research/computing/

**Careers**

Our MSc students come from all over the world and graduate to follow careers in technical, business-related and creative roles, for example as developers, engineers, IT managers or web developers. Whatever their interest, our graduates tell us that the relevance of our courses and the skills they’ve learnt enable them to achieve their goals and build their careers.

**Before you came to Brookes what did you study and where?**

Bachelor’s Degree, Computing – IAD at Middlesex University

**What made you choose Brookes as a place to study?**

Excellent research track record in Computer Vision.

**How did your scholarship or bursary enhance your experience of the course?**

Allowed me to pursue my degree without financial burden.

**What are the best bits of studying at Brookes?**

Good opportunity to interact with the computing vision research theme. My hard work was also validated by getting awarded two prizes:

- Department of Computing and Communication Technologies prize for outstanding achievement in the Master of Science in Computer Science
- The Oxford Web Applications Postgraduate Award for the best dissertation in computing

This has provided me with many great opportunities and a lovely token for all the hard work.

**What advice do you have for others?**

Hard work and tenacity pays off.

“Working in a research environment with leading academics in the field is great. You get to learn something new every day.”

**After graduating from Brookes what were the next steps for your career and where are you working now?**

I am currently working as Research Engineer at DrBlox, Oxford.

**What so far have been the best moments?**

Working in a research environment in the field of software verification with leading academics in the field is great. You get to learn something new every day. It is of great satisfaction to be able to apply the theoretical machine learning skills learnt at university with state-of-the-art research.

**What so far have been the most challenging moments?**

Learning theoretical software verification at a very fast pace.
Software Engineering
MSc, PGDip, PGCert

The most complex engineering artefacts in existence are now software systems and the effects of such systems are felt by almost everyone. It is vitally important that software should be of high quality. It should be built on schedule and without error and it should be safe. Software Engineering MSc combines scientific and engineering principles with sound practice to ensure the production of high quality, reliable software that does what it is designed to do.

The MSc in Software Engineering has a modular design providing you with maximum flexibility and choice. Offered at three levels: a master’s degree (MSc); a postgraduate diploma (PGDIP) and postgraduate certificate (PGCERT). To qualify for a master’s degree, you must pass modules amounting to 180 credits. This comprises six taught modules (20 credits each) plus your dissertation (60 credits).

The Postgraduate Diploma in Software Engineering allows you to concentrate on the taught part of the degree and is ideal for people working in the computing industry who wish to brush up their skills. To qualify for a Postgraduate Diploma, you must pass modules amounting to 120 credits. This comprises six taught modules (20 credits each). In some cases, it may be possible for a student on a Postgraduate Diploma to do 3 taught modules (20 credits each) plus your dissertation (60 credits).

The Postgraduate Certificate in Software Engineering allows you to concentrate on the taught part of the degree and is ideal for people working in the computing industry who wish to learn a specific area in this rapidly changing discipline. To qualify for a Postgraduate Certificate, you must pass modules amounting to 60 credits. This comprises three taught modules (20 credits each).

We also offer a Postgraduate Certificate Software Engineering Research Project.

Part-time students normally distribute the work evenly over a two-year period.

MODULES
You will be studying the following modules:
- Research, Scholarship and Professional Skills
- Secure Systems Architecture
- Advanced Software Engineering
- Advanced Software Development
- Paradigms of Programming (optional)
- Compiler Construction (optional)
- Secure Programming
- Dissertation in Computing subjects
- Placement (optional)

As courses are reviewed regularly as part of our quality assurance framework, modules offered may differ from those listed.

Students studying for an MSc will also take:
MSc Dissertation which is an individual research and development project that allows you to study a topic of your choice relevant to your degree in depth, guided by your supervisor. The work may be undertaken in close co-operation with a research, industrial or commercial organisation. You undertake your dissertation over the summer period.

Admission requirements
You should normally hold a first degree equivalent to at least a British lower second-class bachelor’s degree in a computing-related subject. If your first degree is not in computing but you have worked in the computing industry you can also be considered.

For entry to the Postgraduate Certificate Research Project you should provide evidence of experience in research and study methods at an appropriate level.

English language requirements
If the first language is not English, evidence is required of either a minimum IELTS score of 6.0 with an IELTS score of 6.0 or greater in the reading and writing component or an equivalent English language qualifications acceptable to the University.

Please also see the university’s general entry and standard English language requirements at brookes.ac.uk

Research
The school has an active research community. To find out more about computing research please see page 29 in this brochure or our website: https://www.brookes.ac.uk/ccm/research/computing/

Careers
Our MSc students come from all over the world and graduate to follow careers in technical, business-related and creative roles, for example as software developers, engineers, managers or consultants. Whatever their interest, our graduates tell us that the relevance of our courses, and the skills they've learnt, enable them to achieve their goals and build their careers.
Data Analytics MSc

With recent developments in digital technology, society has entered the era of ‘Big Data’. In the UK, Big Data has been announced as one of the Government’s eight great technologies with priorities for funding and research.

The explosion and wealth of available data in a wide range of applications gives rise to new challenges and opportunities. One major challenge is how to take advantage of the unprecedented scale of data in order to acquire further insights and knowledge for improving the quality of offered products and services.

■ Taught by experts in Maths, Statistics and Computing
■ Theory and practice of mathematical and statistical modelling with special reference to data analysis and visualisation
■ Designed for those currently in employment
■ Students have the option to only take one or two modules that are most appropriate to their needs
■ Students have the flexibility of completing the MSc within 5 years

This programme has been developed to run alongside the MSc in Data Analytics for Government, which was specified in conjunction with the Office for National Statistics. The MSc in Data Analytics is available to all students, and is not exclusive to any particular employment sector.

The MSc in Data Analytics has a modular course-unit design providing you with maximum flexibility and choice. To qualify for a master’s degree, you must pass modules amounting to 180 credits. This comprises twelve compulsory taught modules (10 credits each) plus your dissertation (60 credits).

MODULES

You will be studying the following modules:

■ Regression Modelling
■ Advanced Statistical Modelling
■ Time Series Analysis
■ An Introduction to Machine Learning
■ Advanced Machine Learning
■ Introduction to Distributed Systems
■ Data Visualisation
■ MSc Dissertation (Option)

The MSc Dissertation is an individual research and development project that allows you to study a topic of your choice relevant to your degree in depth, guided by your supervisor.

Admission requirements

You should normally hold a good (first or second class) degree in a physical or a social science which has developed analytical knowledge and understanding in mathematical sciences. Typically this includes candidates with knowledge and familiarity with basic mathematics and statistics concepts and methods at a degree level. Applicants with other qualifications plus work experience from other fields who have quantitative skills and familiarity with data analysis and modelling ideas, to be reflected in their application, will also be considered. These applications must be approved by the Programme Lead.

English language requirements

If your first language is not English you will require a minimum IELTS score of 6.0 overall with 6.0 in all components. Alternatively an equivalent English language qualification acceptable to the University.

Please see the university’s general entry and standard English language requirements at brookes.ac.uk

Research

The school has an active research community. To find out more about computing research please see page 29 in this brochure or our website: www.brookes.ac.uk/ecm/research/computing/

Careers

This programme allows graduates to undertake a wide range of roles in data science. Common careers in this area are Data Engineers, Business Analysts, Data Managers, Machine Learning Practitioners and Data Scientists.
PROFILE:
SAHIL DAVID
MSc COMPUTER SCIENCE

The course was well structured and balanced between the theoretical and practical aspects and faculty members were always there to support us.

What advice do you have for others?
Don’t miss the lectures, be proactive and always discuss your doubts and question with faculty members. Oxford Brookes University is a great place to study, with lots of exciting academics & co-curricular activities.

After graduating from Oxford Brookes what were the next steps for your career and where are you working now?
After graduating, I joined as a Graduate Developer at Pharmiweb Solutions in Bracknell, UK, a digital solutions provider for pharmaceutical companies.

What so far have been the best moments?
I have been promoted to Junior Developer after my first 6 months.

What so far have been the most challenging moments?
I work as a front-end developer. The technologies in the front-end are changing rapidly. The most exciting part and one of the challenges is to stay on track with the latest methods and technologies.

Before you came to Oxford Brookes what did you study and where?
Bachelor of Engineering in Computer Sciences, Chitkara University, HP, India

What made you choose Oxford Brookes as a place to study?
I always wanted to study in Oxford. Oxford Brookes University exhibits the amalgam of traditional & modern era. Oxford Brookes University met all my requirements. The reviews of the Computing department from the previous students were also encouraging. All these factors helped me in choosing Brookes University.

What did you think of the course while studying here?
The course was well structured and balanced between the theoretical and practical aspects of the topics. The lectures were very informative throughout the year. The faculty members were always there to support us.

What are the best bits of studying at Oxford Brookes?
■ Classroom discussions, working in groups on projects, spending lot of time in the library.
■ Working on my dissertation.

www.brookes.ac.uk/courses/postgraduate

Before you came to Oxford Brookes what did you study and where?
I studied Computer Science and Software Engineering at Informatics Academy Singapore with a pathway to obtaining my degree from Oxford Brookes University.

What made you choose Oxford Brookes as a place to study?
I thought it was nice to visit and study in Brookes since I have already obtained by first degree from Brookes without being on the ground.

What did you think of the course while studying here?
The course is challenging. Some coursework is difficult but it made me realise the demands of working in a professional organisation, as the software we used is of industrial standard. The lecturers were amazing too.

What are the best bits of studying at Oxford Brookes?
The coursework, meeting people from different nationalities, the social events and willingness by lecturers to assist students in understanding a great deal.

What advice do you have for others?
If you are looking for somewhere not only to study at a high level, but also to meet people and explore your environment, than Oxford Brookes University is your right stop.

After graduating from Oxford Brookes what were the next steps for your career and where are you working now?
The next step for any student after graduating is to get a good job, get experience and build a career in your field of interest, but I looked past that and decided to work towards being an entrepreneur. I own a business of my own, an IT company, and my company’s name is Laser Sight Limited.

What so far have been the best moments?
Getting my first job was the best feeling. It’s really positive to know that everything you’ve learnt through school, college and university can be put to good use somewhere.

Getting to do what I love as a career, gathering the knowledge and experience from studying in Oxford Brookes University and the UK at large, and making it into an idea that will help solve many problems in this part of the world.

What so far have been the most challenging moments?
As an entrepreneur, the ability for your business to grow is to get out there and sell your products to people. That has not been easy, but as the saying goes, “nothing good comes easy”.

What advice would you give to others wanting to start their own businesses?
It is a good thing to start your own business. But like working for an organisation and studying to get a degree, you need to have an idea that is going to make a difference. Don’t be afraid to take risks, but keep your work in check. If you can successfully manage your own business, you will surely get there.

What would you like to see for the future for your business?
I would like to see my business grow, my products used not only in Nigeria and Africa but the whole world at large.
Before you came to Brookes what did you study and where?

I was doing an MSc in Computer Science at Supinfo International University in Lyon, France.

What made you choose Brookes as a place to study?

My French school offered a partnership with Oxford Brookes and I decided to try a year abroad to study different subjects and improve my English speaking skills.

What did you think of the course while studying here?

My course was very interesting, every module had a direct relation to the field of software engineering and provided different approaches to their respective subjects. The lecturers were really helpful and their explanations and answers were always really appreciated.

What are the best bits of studying at Brookes?

Being able to exchange and work with students and lecturers from many different parts of the world is very interesting and allows us to learn about different cultures and other ways of working. Along with the quality of the course content, this was one of the most enjoyable things during my year at Brookes.

What advice do you have for others?

Do it! My choice was motivated by the ability of learning to speak English correctly but I ended up with way more than just that on the technical, cultural and personal levels. Some challenge is to be expected on some modules but it always motivates to have a better understanding of the subject.

“Discovering the city of Oxford was very pleasant, but being able to get a software engineering position was definitely the best moment.”

What so far have been the best moments?

Discovering the city of Oxford and travelling across England was very pleasant, but being able to get a software engineering position in a company was definitely the best moment since the completion of my course.

What so far have been the most challenging moments?

Working on the dissertation subject was at times very difficult and required a lot of motivation. It has probably been one of the most interesting and complex challenges I had to work on as a software engineer. Nevertheless, I hope I’ll be able to encounter many other ones in my future projects.
Before you came to Brookes what did you study and where?
A-level equivalent at Technical Secondary School, Tychy, Poland.

What made you choose Brookes as a place to study?
- Reach course offer.
- Professional guidance.
- High alumni employment rate.

What did you think of the course while studying here?
Course material insightfully covered computer science and software engineering concepts I would not be able to study on such a high level of detail while working in the industry.

What are the best bits of studying at Brookes?
- Friendly and professional academic and administration staff.
- Industry-oriented education.

What advice do you have for others?
- Find it enjoyable what you study or work on, it makes the whole process easier and more effective.
- Work hard.
- Set your goals and endeavour to achieve them.

It all adds up to a better start in your career.

“The course material covered concepts at a high level of detail.”

After graduating from Brookes what were the next steps for your career and where are you working now?
Current employment
- Position: Software Developer.
- Responsibilities: Develop content enrichment systems for publishers.

Current projects
- Company: FinTech Start-up, Vienna, Austria.
- Position: Software Engineer.
- Responsibilities: Requirements engineering, systems design and development for system prototype (details confidential).

What so far have been the best moments?
The Oxford Brookes Award of “Department of Computing and Communication Technologies prize for outstanding achievement in the Masters of Science in Software Engineering”.

What would you like to see for the future for your business?
I personally do not believe in long term individual success. Competent, intelligent and hardworking people to work with are the key foundation of all great things.
Before you came to Brookes what did you study?  
BSc Mathematics & Statistics.

What made you choose Brookes as a place to study? 
Reputation, location and bursary.

What did you think of the course while studying here? 
It is a good course with excellent tutors. The facilities at Brookes are very good, the module content was interesting with excellent staff providing engaging lectures and tutorials along with willingness to provide help and guidance.

How did your scholarship or bursary enhance your experience of the course? 
The bursary was incredibly helpful, allowing me to work less and focus on my studies more. The extra money means that I could achieve a higher grade and finish with less debt.

“The enthusiasm of some of the tutors was amazing, actual passion for the subject, willingness and capacity to offer advice.”

What are the best bits of studying at Brookes? 
I think the enthusiasm of some of the tutors was amazing, actual passion, willingness and capacity to offer advice.

What advice do you have for others? 
Work hard, do the relevant work as you go and allow plenty of time to ask for help and support. Staff are happy to help so utilise this to your advantage.

After graduating from Brookes what were the next steps for your career and where are you working now? 
I am now working on a graduate scheme at Ernst and Young as an IT Risk Assurance Consultant.

What so far have been the best moments? 
Working on a graduate scheme is amazing as the level of support and training is amazing as well as being part of a team of graduates who all started at the same time.

What so far have been the most challenging moments? 
There was overlap with my final dissertation hand in and the start of employment which meant I had to juggle both for a while.

Before you came to Brookes what did you study and where? 
I studied a MSc Computer Science at Supinfo, in Marseille and spent one year in San Francisco.

What made you choose Brookes as a place to study? 
Brookes offers a very good selection of modules and subjects to study in the realm of computing. I choose Brookes so I could focus my learning on software engineering after studying the broader field of computer science.

What did you think of the course while studying here? 
The course was brilliant. Lecturers are very experienced and motivate you to deepen your knowledge and expertise, and always make time to help their students.

What are the best bits of studying at Brookes? 
Oxford is a wonderful city, I find its architecture and proximity to nature very inspiring.

“I had the best time in student accommodation, with neighbours from all over the world; friends I’ll be sure to keep in touch with.”

What advice do you have for others? 
Depending on the subjects and modules you chose, it will be hard at times, but you can always count on your classmates to help you study and your friends to cheer you up.

After graduating from Brookes what were the next steps for your career and where are you working now? 
A week after submitting my dissertation, I started looking for jobs online. I had edited my CV during the summer to accommodate the British marketplace with the help of Brookes Career Centre.

I found a job in the city I was looking for within two months. I worked at a digital agency in Manchester called Degree 53 for almost two years; their clients include Betfred, Coop Bank, and Sky. Now I am still an iOS Developer but I work at Rentalcars.com, a much larger and more international business.

What so far have been the best moments? 
My best moments are when I met Sara in Oxford, and then when I married her in Manchester! Who would have thought I would get married by age 24 and buy a flat at age 25?
Before you came to Oxford Brookes what did you study and where?
Bachelor of Science in Mechanical Engineering at Technological University of the Philippines and Techno-Masters in Business Administration at De La Salle University – Dasmarinas, Philippines.

What made you choose Oxford Brookes as a place to study?
Popularity and reputation of Oxford Brookes University. Many of my friends studied here and want on to their dream jobs.

What did you think of the course while studying here?
The course is excellent; The lectures, practical/lab, team projects and coursework prepares students to learn and gain an industry-standard IT skill. I also gained my research skill in this course that lead to my employment. Importantly, the student’s support to learning is paramount.

What are the best bits of studying at Brookes?
The learning. My course is designed to start with the basics and at the same time it maintains the master’s level of knowledge and together with the excellent support of faculty staff that makes my learning effective and rewarding. Whilst doing my dissertation project, which is the last requirement for my MSc course this summer, I got an opportunity and I was hired for a summer job to work for data mining projects in the Computing and Communication Technologies department.

“The enthusiasm of some of the tutors was amazing, actual passion for the subject, willingness and capacity to offer advice.”

What advice do you have for others?
This is the course for anyone who wants to move to an IT career. What is really needed is the decision to start this course, dedication, and spending more time on your learning journey, than no doubt students will succeed. If your dream job is to be an IT professional then go for it.

After graduating from Oxford Brookes what were the next steps for your career and where are you working now?
Although, I cannot ignore my passion to continue my further studies and achieve this PhD in Computer Science, financially it may not be affordable. Therefore, I am considering to move to an IT commercial industry after my contract with OBU next year. I am looking forward to working as a software developer or data scientist, which is my main interest and I gained those skills from my present work. Currently, my job is a Research Assistant in the CCT department and an Associate Lecturer in the Software Project Management module for undergraduate Computer Science students here in Oxford Brookes University, Wheatley campus.

Before you came to Oxford Brookes what did you study and where?
I have studied BSc in Software Development at the Islamic University of Gaza and got the first class student award to work as a teaching assistant in the same faculty.

What made you choose Oxford Brookes as a place to study?
I got to know Oxford Brookes through a friend of mine who has applied for a Masters degree at Brookes and liked the fast and reliable service of the admission office at the university. Moreover, I liked the modules that are in the course as well as I wanted to try a new lifestyle in such a green city and green university.

What did you think of the course while studying here?
I was experiencing some of my old knowledge in a new teaching methods. Spending more time in the labs has increased my development skills as I found the required environment in the labs.

How did your scholarship or bursary enhance your experience of the course?
I have got my scholarship for my significant achievements in my BSc Degree and it was funding the whole course which enabled me to focus more on my study as long as not worrying about any financial issues. The periodic communication from my sponsor to support me has reflected positively on my progress in the course.

“I wanted to try a new lifestyle in a green city and green university.”

What are the best bits of studying at Oxford Brookes?
The great support and help that was provided by my course manager and the faculty is a wonderful part of my experience.

Now I have new friends who were studying with me and we have exchanged different experiences between each other. The library environment is wonderful and unforgettable. You have a pleasing space to study, revise and even relax.

What advice do you have for others?
I would advise my colleagues and everyone I know to try this lifestyle and walk through Oxford Brookes corridors to feel the great student life environment provided by the university.

After graduating from Oxford Brookes what were the next steps for your career and where are you working now?
I started to look for a job and/or training opportunities once I started my dissertation. When I finished my dissertation, I was able to move to London as I have received a training chance at a Development and Network Engineering company called VM Cloud.

What so far have been the best moments?
Having my degree from such a wonderful university and living in a great city is something that I am proud of. I feel amazed by all of my achievements.

What so far have been the most challenging moments?
Living in London is my biggest challenge right now as I am familiar with Oxford’s lifestyle. My second challenge is being away of some of my old skills such as advanced .NET Programming.
Developing your entrepreneurial skills with the ICE Qube

ICE Qube is an eco-system for fostering students and staff innovation, research and entrepreneurship. The innovative environment is cultivated using a range of educational embedded modules and programme activities to give students the practical and theoretical knowledge to recognise opportunities and to act on them.

ICE Qube aligns to Oxford Brookes University’s pre-employment training programme. This is a confidence, entrepreneur creativity, connectedness and generosity of spirit.

Confidence - We have confidence in the ability of our students and provide them with opportunities to suit their needs ranging from discovery to immersive learning experience.

Entrepreneur creativity - Students are able to explore creativity and ideas using the tools of innovation and entrepreneurship. They learn to become the change makers.

Connectedness - We believe in learning by doing. We nurture students by providing hands-on experience.

Generosity of spirit - We believe people flourish in a culture of respect and support. ICE Qube provides students an immersive experience, allowing them to develop better collaboration within their businesses.

The placement year is an option for students studying computing degrees and increases a one-year Masters to a two-year. A placement will normally last 12 months, or a minimum of 40 weeks. You will be employed within one company and you will have a suitable level of responsibility to make the job challenging (or ‘real’). The experience will add value to you, your degree and your future career.

A great range of companies offer placements to our students, from large multi-nationals to local employers who may recruit just one student. Some of the companies where students have undertaken placements are Accenture, BMW, Cisco, IBM, Microsoft, and Sophos, Red Bull Technology (part of the F1 team) and BBC, plus many more.

Master’s placement option is available and will make up the second year of the programme before the final dissertation. Students can receive training in preparation for placements through guided lectures, seminars and 1:1 tutorials. The university’s Careers Office provides help with CVs, applications and interview techniques to help you gain your preferred placement. Once you are out on placement, you will be supported by a member of the academic staff who will arrange to visit you whilst you are there.

In the spring of your placement year we arrange a recall conference with the school, for a mutual catch-up. You will find it very useful to reconnect with both the school and your fellow students at this point.

Remember, a placement year is not a compulsory part of degree programmes in the School of Engineering, Computing and Mathematics, but students who include this year invariably find that it enhances their final year of study and their final year project.

For more information about placements, contact the Partnerships and Placements Office: tdeplacements-enquiry@brookes.ac.uk

LUKASZ PILISZCZUK

LUKASZ WAS AWARDED THE OXFORD WEB APPLICATIONS AWARD FOR THE BEST DISSERTATION IN COMPUTING.

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Masters by Research

Research in the School brings together expertise from a broad spectrum of disciplines. The school has an excellent reputation for research and knowledge transfer. We have a number of active computing research groups with internationally recognised researchers in all its disciplines. Students studying on postgraduate courses can link into the wide range of research that goes on in the school.

The MSc by research degrees allows students to critically investigate, evaluate and perform a significant piece of research. It combines research training with a major research project. As with other research degrees, they are examined by thesis and viva.

There are two entry points for a Masters by Research (January and September). Which one is applicable to you depends on the modules you will need to follow. You will need to discuss with a potential supervisor.

Requirements:
- Thesis: 15,000 words for MSc by Research in engineering and computing.
- Length of study: 1 year full-time or 2 years part-time.
- Entry requirements: a first-class or upper second-class honours degree or equivalent qualification.

A candidate initially registered for the degree of MSc by Research may apply to transfer. We have a number of active computing research groups with internationally recognised researchers in all its disciplines. Students studying on postgraduate courses can link into the wide range of research that goes on in the school.

We offer an outstanding experience for research students with the following benefits:
- You become a member of the department’s research groups pursuing an ambitious research agenda.
- You will interact with a dynamic research environment and find various opportunities to contribute to wider research, teaching and funding proposals.
- Students benefit from links with the wider faculty.
- 24-hour access to laboratories equipped with state-of-the-art hardware, software and robots.
- A taught research training course that caters for both full- and part-time study.
- A wide variety of optional teaching courses, student events, lectures and seminars.
- All students are allocated a Director of Studies and at least one other supervisor who they meet with regularly.
- A range of personal support that includes access to a wide range of staff who are available for consultation.
- Students benefit from automatic membership of the Faculty’s Doctoral Training Programme.

Research Degrees

Research is structured into two large research centres: Intelligent Systems Engineering and Dependable Systems Engineering. Students are attached to these research groups and work alongside experienced researchers as well as with collaborators from across the industry and other academic institutions.

We offer five research degree routes: MSc by research; MPhil; MPhil transferring to PhD; PhD direct (only for students who have recently completed a master’s or MPhil degree in an area closely related to the proposed research topic); PhD by published work (only for students who have prior association with Oxford Brookes University).

What Research Can We Supervise?

Research students have their own dedicated work space in the heart of the campus. The research that the school produces is world-leading and of international significance. Postgraduate students can get involved in research projects. We welcome research proposals related to any of the subjects covered by the research groups represented by our two research centres. The two centres cover the following:

- Intelligent Systems Engineering Research Centre (ISERC)
  - Robotics
  - Machine Learning and Computer Vision
  - Uncertainty in Artificial Intelligence
  - Performance
  - Augmentation Lab
  - Electronics and Communications

- Dependable Systems and Engineering Research (DSERC)
  - Formal Methods
  - Software Engineering
  - Cyber Security
  - e-Health and PEPPER
  - Statistics and Data Analysis
  - Reliable Circuits and Memristors
  - Cloud and Network Softwarization
  - Web-based Systems and Services

Dependable Systems and Engineering Research Centre (DSERC) Supervisors:
- Dr Arantza Aldea
- Dr Kashi Basu
- Dr Ian Bayley
- Dr Bob Champion
- Dr Mark Green
- Professor Rachel Harrison
- Dr Atefeh Jabir
- Dr Sima Kamal
- David Lighthart
- Dr Clare Martin
- David Sutton
- Dr Muhammad Younas
- Professor Hong Zhu

Intelligent Systems Engineering Research Centre (ISERC) Supervisors:
- Dr Peter Ball
- Professor Nigel Crook
- Professor Christina Jayne
- Dr Tjeerd Olde Scheper
- Dr Shumao Ou
- Dr Matthias Paß
- Dr Fridolin Wild

How to Apply

The application process is broken down into 5 steps:
1. Check essential requirements
2. Explore our research groups and supervisory staff pages
3. Agree your research
4. Formulate your proposal
5. Gather required documents and submit your application through UCAS Postgraduate.

For MSc applications, download the paper application and submit the application along with the required supporting documents to tde-research@brookes.ac.uk.

Contact postgraduate research tutor Dr Tjeerd Olde Scheper (tjeerdscheper@brookes.ac.uk) to discuss your proposed research.
Before you came to Oxford Brookes what did you study and where?
I did an undergraduate degree in Software Engineering from Oxford Brookes.

What made you choose Oxford Brookes as a place to study?
I chose Brookes for its location as I was working in Oxford and its modular programme which allows student to select their modules according to their field of interest.

What did you think of the course while studying here?
The course was interesting and challenging. The subjects were covered in depth. Assessments were designed in a way that students work hard to accomplish them and gain adequate knowledge.

What are the best bits of studying at Oxford Brookes?
Courses are well organised and delivered on time. Staff are very helpful and knowledgeable. The Library in John Brookes building is an excellent environment for learning and meeting and discussing with other students.

What advice do you have for others?
Oxford Brookes focuses on independent learning. To get the maximum benefits while you are in Oxford Brookes. Read requirements carefully, study hard, consult lecturers and staff as they are very supportive and they can guide you to right path. Be a student representative for your course, it is a definite plus.

What so far have been the best moments?
Finishing my course, exploring the job market and using some of my free time to learn new things and some useful technologies. Finding enough time to balance between work and studies.

“Oxford Brookes focuses on independent learning. To get the maximum benefits while you are in Oxford Brookes, read requirement carefully, study hard, consult lecturers and staff.”
CONTACT

APPLICATIONS
For advice about Undergraduate and Postgraduate applications contact: query@brookes.ac.uk +44 (0) 1865 484848

INTERNATIONAL
For information about applying as an international student please visit: www.brookes.ac.uk/international

MORE INFORMATION
For more information about the School visit: www.brookes.ac.uk/ecm

Oxford Brookes promotes equality of opportunity for all who study, work and visit here. For more details please visit www.brookes.ac.uk/services/hr/eod or phone +44 (0) 1865 485929.

To obtain a large-print copy of (or sections of) this publication or to enquire about other formats please contact +44 (0) 1865 484848 or email query@brookes.ac.uk

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All information is correct at the time of going to press. Please refer to the University's website for the most up-to-date details.