

Discover STEM

Alumni Profiles







Josh Taylor

Subject: Aerospace Engineering with Private Pilot Instruction (MEng) **Graduated:** 2015

Following completion of his degree in Aerospace Engineering, Josh Taylor is now working as a First Officer (Commercial Pilot) at easyJet.

Q: Why did you choose to study this degree?

A: The long term aim was always to be a Pilot. Studying Aerospace Engineering was the best combination of mathematics, aviation and subject depth to give me the toolset to succeed.

Q: Why did you want to come to the University of Sheffield to study your chosen degree?

A: The University of Sheffield has a fantastic reputation for Engineering. Coupled with the cities deep history in Steel Manufacture and the new Advanced Manufacturing Research Centre (AMRC) it was the best opportunity to be part of projects that were tackling some of the most challenging aviation issues to date.

Interested in Aerospace Engineering?

Our modules cover aero propulsion, aerodynamic design, aircraft dynamics and control and computational aerodynamics.

After a year of core study, you'll choose either the avionic systems or aeromechanics stream. In your final year, you'll work on a research project led by aworld-leading academic.

Q: What was your favourite thing about going to the University of Sheffield?

A: I loved sport and the University provided me funding to create a Baseball team, which still exists. The Sheffield Hornets Baseball Club.





Business title: First Officer (Commercial

Pilot)

Organisation name: easyJet

Industry sector: Airline

Q: What are your main responsibilities?

A: Flying easyJet's fleet of narrow body A320 aircraft to leading destinations across Europe.

Q: Please briefly outline your previous roles:

A: Pilot and easyJet representative on Series 2 of ITV's documentary 'Inside the Cockpit'.

Q: How has your qualification or time at Sheffield helped you in your career?

A: Having a Masters in Aerospace Engineering shows a long term interest in the field. Applying to be a Pilot is wildly competitive, so having so a degree within the sector will make your application stand out.

Q: What is your greatest achievement to date?

A: I was lucky enough to fly my Mum and Dad from Manchester to Berlin for a weekend break. It was surreal and honestly one of the most fulfilling moments of my life.



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Q: What advice would you give to a Year 12/13 student interested in pursuing a similar career to your own?

A: Failure is difficult to digest. Aviation is competitive and it's uncommon to succeed with an application first time. Keep pressing on, don't listen to people who tell you it's not possible. I heard that and I'm doing the job I always dreamed of growing up. So, if you want it, work hard and you'll succeed.

Entry Requirements

A Levels: AAA, including Maths and a science; or AAB, including Maths and a Science + A in a relevant EPQ; AAB, including Maths and a Science + A in AS Level or B in A Level Further Maths.

Any questions?

Contact the department:
Telephone +44 114 2227837
Email aerospace-admissions@sheffield.ac.uk
Website sheffield.ac.uk/aerospace/
undergraduates



Helen Wright

Subject: BSc Biomedical Science

Graduated: 2008

After studying Biomedical Science at the University of Sheffield, Helen now works here as a Research Technician.

Q: Why did you choose to study this degree?

A: I wasn't entirely sure what I wanted to do for a career, but I had a very strong interest in human biology. I chose Biomedical Science as the course covered a broad range of topics and provided plenty of opportunity to develop practical skills as well as theoretical knowledge. I knew that through trying out the lots of different areas of this science that I would find a particular subject that captured my interest to pursue it as a career.

Q: Why did you want to come to the University of Sheffield to study your chosen degree?

A: The Biomedical Science course at the University of Sheffield offered the most variety of module topics and the most time practical based teaching - developing these hands on skills is vitally important for your future employability. Sheffield was also one of the few Universities (and still is) that offers full cadaveric dissection as part of the course. There really is no better way to learn anatomy, and once I'd got over my initial apprehension about it, I enjoyed those modules more than any other. The University of Sheffield is also a research led institution; it was fantastic attending lectures by world renowned researchers and knowing

that you really were learning the absolute most up-to-date information in these fields.



Q: What was your favourite thing about going to the University of Sheffield?

A: I loved every minute of my course, I was completely fascinated by it. The whole time I was a student there I felt a part of something prestigious and meaningful. I still feel this way now after working at the University for a total of 8 years! Plus I love the city - I have never moved away from it!

Did you know? Sheffield is one of the UK's greenest cities. There are more trees in Sheffield than people! Parks and green spaces are everywhere.

Business title: Research Technician **Organisation name:** The University of

Sheffield

Industry sector: Higher Education

Q: What are your main responsibilities?

A: I provide laboratory-based training in Tissue Engineering, and Immunhistochemistry to undergraduate and postgraduate students, researchers and even hospital consultants! I am also working on research into genetic engineering of bacteria (E.coli) to expand their ability to manufacture pharmaceutical drugs, like little 'cell factories'. I am also assisting our university's fantastic COVID 19 research team in Chemical and Biological Engineering by running data processing that will help us better understand the virus' Spike Protein: the spikey coating of the virus that allows it to interact with the human hosts' cells.

Q: Please briefly outline your previous roles:

A: Previous to being a Research Technician I worked in the University of Sheffield's Diamond teaching building as a Teaching Technician in Bioengineering. I taught both undergraduates and Master's students in practical laboratory activities on everything from cell culture and protein quantification, to liquid chromatography and genetic engineering.

Prior to this I worked at the University's Clinical Dentistry department as a researcher, performing antibody staining on human nerve samples to investigate the role of specific signalling proteins (called chemokines) in causing pain after dental procedures like tooth extractions.

In between Clinical Dentistry and the Diamond I took a break from the world of science to work in retail for a couple of years. This gave me the opportunity to really think about what I wanted to do for a long term career, and helped me to develop some truly invaluable skills working in a team, helping customers and managing time and people. However the call of science soon lured me back and I worked as a Science Technician in a local secondary school. It was here that I got my first taste of teaching

science, which ultimately led me to my job as a Teaching Technician. It also proved to me that I much preferred working in a practical job like a Technician, where I was able to design and build things, and perform the fun experiments rather than just reading or talking about them.



Q: How has your qualification or time at Sheffield helped you in your career?

A: My degree at Sheffield has certainly helped at every stage of my career; from pursuing further study to getting a job in a related field. It helped me to identify the specific areas of Bioscience that would interest me as a career, and gave me a fantastic breadth of skills and knowledge that I could apply in so many different roles. It was a fantastic way for someone unsure of what they wanted to do, to equip themselves with everything they'd need to get a job in any field of Bioscience.

Interested in Biomedical Science?

This course covers everything from the gene to whole body systems, including cell and molecular biology, genetics, physiology, pharmacology, anatomy, developmental biology, neuroscience and systems biology.

We're proud to be one of only a few universities in the UK to offer undergraduate students the opportunity to perform full body cadaveric dissection, providing you with an excellent foundation for understanding human physiology and developmental biology.

Q: What is your greatest achievement to date?

A: I am currently helping one of the University's COVID research teams as we try to get a better

understanding of how this deadly virus works, in the hope that we can find vital information that will help in the development of a vaccine. My part in this may only be fairly small, but to have been asked to be a part of the UK effort to battle this global pandemic makes me proud.



Q: What advice would you give to a Year 12/13 student interested in pursuing a similar career to your own?

A: Look for a course that offers plenty of practical experience; in particular projects and/or group work. These activities help you develop and demonstrate the skills that employers most value - communication, planning, project management, research and design...

If you are not sure exactly what job or even discipline you want to work in, that is not a bad thing! Try to pick a more general course like Biomedical Science or Bioengineering that offers you the chance to experience a variety of different specific subjects rather than going for a narrower, exact discipline such as Molecular Biology or Neuroscience, which will limit your options later. Look for opportunities to get experience in a workplace setting too; this can be industry placements or research experience programmes like Sheffield University's SURE scheme - these are highly valuable when applying for jobs or onto further study as a Masters or PhD student.

Most importantly, pursue a subject that you will enjoy! It is a lot easier to stick out the harder times in study or employment when you love the work you are doing and it interests you. But, never be afraid to try something and change your mind (sometimes more than once!) After working in research the first time I decided it definitely wasn't for me, but now I am back in research (perhaps a little older and wiser and with more experience) and it excites and inspires me again.

Finally, never discount the things you currently think you'll never want to do; I always hated public speaking and would never have believed anyone who told me I would have a career in teaching..... Until the day I was placed in front of a class of students and told that I had to teach them as no-one else could. It was terrifying but after the first few times I really loved it and now I can't imagine taking a job where I'm not sharing my skills and knowledge with others! The world is open to you in all ways - explore and find what you love and what you are good at, change your mind if its right, and never be afraid to try as many different experiences as you can!

Q: What do you look for in graduates that you hire?

A: Some relevant hands-on experience - this can be laboratory experiments or volunteer/placement work at a relevant company or organisation.

Entry Requirements

A Levels: AAB, including two science subjects; or ABB, including two science subjects + B in a relevant EPQ; or ABB, including two science subjects + B in Core Maths

Any questions?

Contact the department:
Telephone +44 114 222 2319
Email bmsadmissions@sheffield.ac.uk
Website sheffield.ac.uk/biosciences/
undergraduate/courses/biomedical-science



Stephen Roberts

Subject: BSc Mathematics & Statistics

Graduated: 2006

After graduating with a degree in Mathematics & Statistics, Stephen Roberts is now working as a Software Engineer in the Gaming sector.

Q: Why did you choose to study this degree?

A: Mathematics was my best subject at school as I like logical puzzles and so I felt comfortable with different problems. However I didn't know what I wanted to do after University - Maths gave me a wider range of opportunities once I graduated.

Q: Why did you want to come to the University of Sheffield to study your chosen degree?

A: Sheffield has a great reputation for teaching excellence and I was excited to join such a big institution and learn from some really talented people.

Q: What was your favourite thing about going to the University of Sheffield?

A: The city is really friendly. It has a cool atmosphere and it was a really great place to spend 3 years of my life

Interested in Mathematics and Statistics?

You'll learn statistical data analysis and computing skills, and have the opportunity to apply these in project work.

The course includes statistics, probability, core mathematics, pure mathematics and applied mathematics.. Algebra and calculus will get you on the right track, then you can choose the subjects that interest you the most. Topics range from codes and cryptography to game theory, mathematical biology to medical statistics, and signal processing to fluid mechanics.

Business title: Software Engineer **Organisation name:** The Stars Group

Industry sector: Gaming

Q: What are your main responsibilities?

A: To create a website and applications that

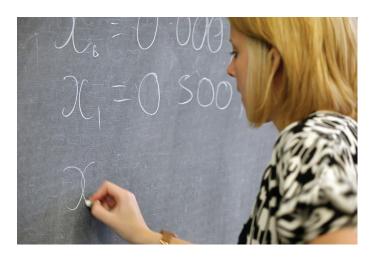
sports betting traders can use to help manage liabilities

Q: Please briefly outline your previous roles:

A: Actuarial Analyst at Aon - Using mathematical models to calculate and help rectify the financial health of their pension scheme.

Q: How has your qualification or time at Sheffield helped you in your career?

A: A Maths degree was absolutely integral to moving into the actuarial world as you need to show you're comfortable with probabilities. It was also a great help to me when moving careers as it showed my level of competence that could be useful to this new role.



Q: What is your greatest achievement to date?

A: I think switching careers is something I don't take lightly. It would have been easy for me to stay in actuarial but it wasn't something I wanted to do longer term.

Making the jump after over a decade in a specific industry and starting again was challenging, but I'm happy I've done it.



Q: What advice would you give to a Year 12/13 student interested in pursuing a similar career to your own?

A: If you're interested in software development, try to get as much practical experience as you can. Make websites, different tools, anything that requires effort and thought. Put these onto your Github profile so that you can show potential employers what you've done. Try to deploy your website so that you've not only handled the code but also the platform side of it too. Lastly write about your experiences - it's a good reference for you later on and it shows employers your progression and thought process.

Entry Requirements

A Levels: AAB, including A in Maths; or ABB, including A in Maths + B in a relevant EPQ; or alternatively, ABB, including A in Maths + B in Further Maths

Any questions?

Undergraduate admissions officer School of Mathematics Telephone +44 (0)114 222 3999 Email maths.admiss@sheffield.ac.uk Website sheffield.ac.uk/maths/prospectiveug



Leia Boote

Subject: BSc Biomedical Science

Graduated: 2018

Leia graduated in 2018 and is currently working at the University of Nottingham as an Anatomy Teaching Technician.

Q: Why did you choose to study this degree?

A: I loved biology at school and throughout my A levels but was particularly interested in learning about the human body. I found it fascinating to learn about the science behind what is happening inside all of us and wanted to study this in greater detail. I looked into studying medicine and decided that being a doctor wasn't for me, and realised that Biomedical sciences was the perfect course for me.

Q: Why did you want to come to the University of Sheffield to study your chosen degree?

A: When looking at different universities, I realised how green Sheffield is as a city. I love being surrounded by nature, and this was something that really appealed to me, knowing that I would have huge parks on my doorstep. I also loved the department when I came to look around the university and felt that it offered a lot more than any where else in terms of my course specifically. Finally, Sheffield is relatively close to my home town, which meant frequent trips home were easy, but far enough that my mum couldn't come down every weekend!

Q: What was your favourite thing about going to the University of Sheffield?

A: The nature that surrounded the university allowed me to de-stress and feel more at peace during my studies. This was my number one favourite thing about Sheffield, but a close second was the endless support offered to me from my tutors. They changed my life and I will be forever grateful

Business title: Anatomy Teaching Technician
Organisation name: University of Nottingham
Industry sector: Higher Education

Q: What are your main responsibilities?

A: I maintain the anatomy suite at the university, facilitating the set up and running of large cohorts of students from various medical and health care backgrounds. I am responsible for preparing classes, organising how they will be set up, and supporting students during their classes in our laboratory. I am also responsible for a lot of the paperwork and planning behind the scenes.

Q: Please briefly outline your previous roles:

A: I spend a lot of time preparing for classes for the week ahead. I will look in detail at the

brief from an academic and work out the best way to set up and facilitate a class. I use my anatomical knowledge to find the best resources for this class and I am present during the class to ensure it runs smoothly. We have classes which perform full body cadaveric dissection which gives a unique learning experience giving students the ability to see the gross structures of the human body. My anatomical knowledge has allowed me to give a lot of support and advice to students during this time and I am moving into a teaching-based role to help support students more closely. I take care of the laboratory on a whole, including the maintenance of equipment and supply of stock.

Q: How has your qualification or time at Sheffield helped you in your career?

A: My degree gave me the opportunity to experience a wide range of different laboratory settings, and find the one which suited me the best. I learnt a lot of things which are academically specific to my current role, but also more general organisational and practical skills which I use daily.

Did you know? As you progress through your degree, you can choose specialist modules that interest you, from physiology, pharmacology and neuroscience to developmental and cell biology, stem cells and cancer.

Q: What is your greatest achievement to date?

A: My greatest achievement has been organising my own training opportunities in my current role. As I was a recent graduate I felt that I was lacking practical experience that other staff may have, so I have found and organised many different training courses and shadowing experiences to allow me to increase my role-specific knowledge more quickly. This has led to me being promoted within my first 6 months in my role to become a more senior technician within the team with much greater responsibilities.



Q: What advice would you give to a Year 12/13 student interested in pursuing a similar career to your own?

A: Make sure you research the degree courses available at university and don't feel pushed to choose something which you have already studied at A level or school. If you are really interested in a subject you have never studied before, do you research, reach out to as many people as possible in that field, and make the leap. You won't regret it!

Entry Requirements

A Levels: AAB, including two science subjects; or ABB, including two science subjects + B in a relevant EPQ; or ABB, including two science subjects + B in Core Maths

Any questions?

Contact the department:
Telephone +44 114 222 2319
Email bmsadmissions@sheffield.ac.uk
Website sheffield.ac.uk/biosciences/
undergraduate/courses/biomedical-science





Ann Cairns

Subject: BSc Pure Maths & Statistics

Graduated: 1978

After graduating, Ann was the first woman qualified to work in offshore British engineering. She is now Executive Vice Chair of Mastercard.

Q: Why did you choose to study this degree? A: I love maths and Sheffield has a great maths department.

Q: What was your favourite thing about going to the University of Sheffield?

A: Sheffield is a great town to live in as a student – it's easy to get around, there's lots of social and sports facilities and it's very a friendly place. Also, the Student Union was fabulous when I was there and it still is!

Business title: Executive Vice Chair Organisation name: Mastercard Industry sector: Financial

Q: What are your main responsibilities?

A: As Executive Vice Chair, I represent Mastercard around the world, focusing on inclusion, diversity and innovation. I'm a senior ambassador, spokesperson and executive leader, and part of the company's global management committee.

Q: Please briefly outline your previous roles:

A: After 9 years in engineering (where I was the first female qualified to work offshore in Britain) I moved into investment banking, with roles at Citibank and ABN Amro. I then moved to Alvarez & Marsal as a restructuring consultant, and led the team managing the bankruptcy process for Lehman Bros in Europe. I joined Mastercard and the payments industry in 2011, as Head of International Markets.

Q: How has your qualification or time at Sheffield helped you in your career?

A: I gained a lot of confidence at Sheffield and left feeling I could do anything that I wanted in life. I think the people I met there really helped me to grow into the person I became.

Q: What is your greatest achievement to date?

A: Working with the World Food Organisation to deliver 100 million meals for school children around the world.

Q: What advice would you give to a Year 12/13 student interested in pursuing a similar career to your own?

A: When you go to university, study something that you love – this is the best time of your life and you'll do well if you study a subject near to your heart. Your career doesn't necessarily have to link to a vocational subject that you study, but when at university take the time to network with people and get placements at companies – this is the thing that will ultimately help you get a job in the future.

Q: What do you look for in graduates that you hire?

A: I look for people with creativity and an interest in the world around them, as well as the ability to connect well with others. I also look for people who want to work for a global company, which can mean being based in different locations and learning new things.

Entry Requirements

A Levels: AAB, including A in Maths; or ABB, including A in Maths + B in a relevant EPQ; or alternatively, ABB, including A in Maths + B in Further Maths

Any questions?

Undergraduate admissions officer School of Mathematics Telephone +44 (0)114 222 3999 Email maths.admiss@sheffield.ac.uk Website sheffield.ac.uk/maths/prospectiveug



