

# Profile



**Student Sally Jones** put in the effort to organise to undertake a year of her study in the United States. She tells Jackie Whitelaw it was one of the best decisions she's made so far.

**Sally Jones graduated** from her civil and structural engineering course at Sheffield University at the start of the summer. The results are in and, before you ask, she got a first; next step is a PhD.

On the way to academic success this obviously extremely bright 22 year old was one of just three people in her year who opted to broaden their education and engineering skills by studying abroad. It wasn't something arranged by the department. Jones went along to a talk where the possibilities were explained and then went and found out for herself how to organise it.

She applied via the International Exchange Unit at Sheffield which operates the university's Study Abroad scheme. Undergraduates have the opportunity to take part of their degree at partner universities in Australia, Canada, Hong Kong, New Zealand, Singapore or the US.

What drew her to the thought of international study was that, growing up, Jones had been used to her father working abroad. "I missed him but also always wondered what it would be like working with other cultures, what was he finding out? And as an engineering student I was really interested in how people designed in other places."

With that in mind, Jones selected her top five preferred international universities, composed her personal statement and put her head down to make sure she got the grades in her first and second years that would allow her to participate in the exchange programme.

With so much of the world to choose from it could have been a difficult decision. "But we had friends in the US so it made sense to head west to Canada or the US," she says. "I got my fourth choice – the University of Illinois at Urbana-Champaign. I'd put Toronto at the top of my list but actually Illinois turned out to be the best option for me – it is the best university in

the States for civil engineering!"

Engineering had been in her heart from a young age. Her physicist father had encouraged her to always find out how things work – "my brother and I have never had a holiday flight when he hasn't explained to us how the wings of a plane work," she says.

"I'd always liked designing things, modelling things, putting a weight on something to see how much it could carry before it broke."

At school (Altrincham Grammar in Cheshire), as is so often the case, an inspirational physics teacher nurtured Jones's enthusiasm. "Mrs Lord was fantastic, she really encouraged us; we went on a trip to CERN, did an engineering project with United Utilities, all so we could make the link with what you can actually do with a science education."

With A-levels in maths, physics and chemistry, civil engineering was always going to be an option. A couple of university open days convinced Jones that was the

degree for her and she lighted on Sheffield and its city based campus as the place for her.

"Once I started the course I found I really liked the structural side of it," she says. "I took courses like blast impact on structures and found the design side challenging and creative."

Study in America she realised, would expose her to structural subjects, particularly in relation to earthquakes and tall buildings, that she would not get the same experience of in the UK.

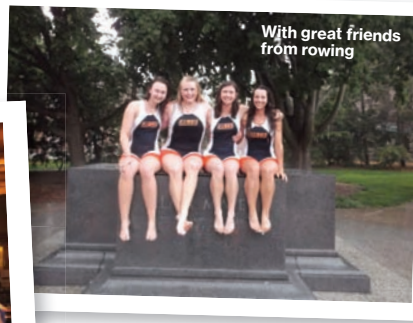
"It was very exciting when the letter arrived telling me whether the year abroad was going to happen and where I was going," Jones says. "I was sent two letters, one to my university address and one to home. Mum stuck to her promise to let me open my university letter first but she said she'd been holding the home one up to the window!"

Parental support was crucial to her adventure, "The scheme paid some of the tuition fees and something towards





Seismic design competition, Seattle



With great friends from rowing



Parental support – Mum and Dad came to visit

maintenance but I could only have applied if my parents guaranteed a certain amount towards the costs."

The US was everything she hoped it would be, with the size of the university engineer library (huge) creating a strong first impression. The courses went on to provide the new experiences she was hoping for. "I had to take a certain amount of courses to qualify for the visa – four in the first semester and five in the second which is normal for local students. That allowed me to focus on my two big interests, structures and water engineering design."

Classes in structural dynamics, airport design and masonry structures were particular highlights and it was a stretching exercise academically to study using different design codes and measurements in feet and inches. "There was one class looking at forces on brick where there was a lot of talk about KIPs – thousands of pounds per square inch," Jones says remembering her confusion. "I was lucky though, one of the girls in the group took me under her wing and gave me a basic class in imperial measures – all that dividing by 12!"

The courses were good but the real benefits, Jones feels, came from the huge boost in self development she received by putting herself in unfamiliar surroundings. "That started from day one. I had a horrific journey getting there; flights were cancelled, my luggage was lost. I had to sort it out for myself and say 'this has happened, please help me'. It was all very good for me."

The US students were very friendly and welcoming which all added to her positive experience. "I'd only been there a month before I got seven invitations to Thanksgiving," she recalls. "And I don't know if every university in the US is the same but there is something for everyone in the way of clubs and groups – in the departments as well as the overall university. I'd learned to row at Sheffield so

I got involved with that straight away. That was where I met my best friend for the year, Sandra. She took me straight off to Wal-Mart so I could buy all the things I needed."

The US students asked Jones lots of questions with the most popular being about Harry Potter, Sherlock Holmes and music – "it was great teaching them about our culture and finding out about theirs". With a fellow European, a boy from Holland, Jones tried to explain the attractions of Eurovision Song Contest. "We couldn't really get that across though."

"I had spent my whole life in a certain culture – and being dropped in somewhere else and making that work was very good for my personal confidence and also my confidence in my education," Jones says. A year in the focused environment of a US university also gave her drive and discipline that were invaluable in her final year at Sheffield, she says.

"In the US there are assignment deadlines and mid-term exams all the time. Even when my parents came to visit I couldn't go out as I had to keep working. In the last year at Sheffield when I was doing my dissertation I kept working rather than leaving it all to the end. Because the US college system is so expensive, people put their heads down and that really helped me."

The universities too, go out of their way to justify their expense by putting a great deal of effort into producing top quality graduates who have been given all sorts of extra curricula opportunity. "The university wants to produce competitive

graduates with great things on their resume so they got us involved in national college competitions like designing bridges and building concrete canoes. I took part in one on seismic design where we had to design and build a balsa wood model and then take it to Seattle and present our concept and show it could stand up to three simulated earthquakes. Ours would have done that if someone hadn't stood on it on the train to the venue!

"Even so, it was very interesting to see what students from elsewhere had come up with. The University of California, Berkeley, used viscous negative dampers and there were all sorts of cross bracings. I was being exposed to other sorts of thinking and in the UK I wouldn't have had the experience of earthquake engineering.

Jones is now preparing for her PhD which is in the water engineering field and has just finished a trip round Europe with her boyfriend, taking in a water engineering conference in Bari, Italy where she gave a presentation. But she is not lost to structural engineering. "For the PhD I am looking at forces and the interaction of materials, so I think my work will still be relevant to structural engineering. I know I will miss the design aspect so I will start talking to employers after my first year and see how to direct myself back into the design aspect of structures."



A long way from home