

# Encouraging Women in STEM via Work Experience

**F**or the first time I offered year 12 (aged 16 to 17) work experience. I wanted to encourage more women in STEM, so I approached a local girls' school. They had me come in to talk to the girls about my rather unusual career path, and I discussed a possible work placement with them. I had in mind to have one young woman, but in the end two were interested and I decided that I could manage that. In fact, having two was an advantage – it meant they had some camaraderie with somebody that they already knew.

Credit: Stuart Hollis, [www.hollisphotography.uk](http://www.hollisphotography.uk)



*Martine on Campus*

I met them from the bus on the first day and guided them through campus to my office. The university employers' liability insurance covers work experience students provided they are under close supervision, so I hosted them in my office.

Firstly, I gave them a tour of the building and I showed them where all the essential things are like access to tea and coffee and took them to meet the administrators who supplied them with visitors' access cards, so they could arrive and leave as they wished.

Next, I talked about my own career in detail and answered any questions. Then I had them download and install Rstudio and gave them some lecture notes from our first year undergraduate courses to learn the basics of R.

I also gave them a copy of *How to Lie with Statistics* by Darrell Huff and the IMA sent a copy of *50 Visions of Mathematics* and a book of *Maths Matters* case studies for them to keep.

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The task was to learn enough about R so that they could visualise some data sets, and then begin to use the ideas from the book to misrepresent the data. This was an ongoing task in between all the other activities I had lined up, so they were not left doing this for many hours at a time, but still had some autonomy. I took them for lunch at one of the cafes on campus and then we started meeting colleagues.

The students' favourite part was meeting 12 colleagues over the course of the week. They all talked about their career paths: how they made decisions about what to study at university, next steps, where they had lived and the challenges and benefits of the academic career path, including the two-body problem.

Some colleagues were coming to talk to me, as impact champion for my department, about the potential impact cases for 2028. These discussions went down particularly well with my work experience students, as they had very clear, real-world applications to show. We met a range of colleagues at different career stages and with different academic foci.

The IMA Academic Rep discussed the importance of professional bodies in an academic career. I was also asked to be on a panel for a practise funding interview and I was able to say, 'yes but only if my work experience students can listen in'. This was acceptable to the interviewee and gave me the opportunity to discuss academic research funding with the students.

They joined my weekly writing retreat, an online meeting held every Thursday morning, and began to write up their impressions of the week. I was able to discuss with them how difficult it can be for academics to carve out time for writing.

I also wanted them to see a seminar, but many of the seminar series had closed because it was out of undergraduate term time. However, the Institute of Advanced Study had a seminar which was designed to showcase academics in their diversity. It was preceded by the speaker giving a half-hour violin recital, before giving a general audience seminar on biological sciences.

The students' final task was to design a year 10 activity which would encourage students to consider taking A-level maths.

If you want to get started with reaching out to schools, becoming a STEM ambassador ([www.stem.org.uk/stem-ambassadors](http://www.stem.org.uk/stem-ambassadors)) is a good place to start.

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