

AEROSPACE ENGINEERING STUDENT TANYA SHABAN



What do you do day-to-day in your role?

I attend lectures where I take notes and study independently to learn engineering content based on aircraft and spacecraft technology and safety. I conduct experiments in flight simulators, wind tunnels and on real engines and work in small groups to process data. I work with the group to write up reports and evaluate the findings of experiments. A large portion of my day is dedicated to my individual project work: making a robotic flying insect. I conduct research and formulate plans for my experiments, meet with university staff for guidance and work alone to construct and test my robot.

What are the best and worst parts of your role?

The best part is learning how to use different types of software and programmes to help complete tasks and finding solutions to real engineering problems! The downside is that university can be very stressful, especially when there is a lot of work to be done and not much time left to do it, so sometimes I need to put my hobbies aside and put all my focus on my work.

How do you have to dress and what equipment do you use?

Casual wear. If I am presenting my work to lecturers or people from outside of the university I will dress more formally- in a shirt and blazer. Most of my work is done on a computer- I use different types of software for programming, data analysis, computer aided design, report writing, modelling and simulation. Some of my experiments are done on real engine parts and robots, in flight simulators and in one case a real aeroplane!

What were your favourite subjects in school?

Maths, Science and Performing Arts

When you were younger did you see yourself doing this job?

No! When I was a child, I wanted to be an actress or a fashion designer.

Was there anyone who particularly inspired or supported you to get to where you are today?

My chemistry teachers advised me to look to engineering when I told them I wanted to combine my creative and technical skills, and Mary Jackson, the first black, female engineer at NASA, inspired me to become a rocket scientist. Dr Stephen Hawking inspired me to shoot for the stars no matter what life throws at you.

Did you know anyone who did this job when you were younger?

No! I didn't know any engineers at all, much less anyone in the aviation or space industry. I didn't realise that it was possible for me to do something like this until I started studying for my A-Levels and saw that I could apply to study spacecraft technology or aerospace engineering at university.

Has your experience in work/study/apprenticeship been what you expected?

I had little expectations for what to expect but was still surprised by the range of skills that an engineer should have: an engineer should have software skills, mechanical intuition and problem-solving skills, and should have a wide understanding of lots of different types of technology. After all, it is the job of an engineer to combine science and maths and apply it to real life, so you must be a jack of all trades.

Do you see yourself studying further in the future to progress your career?

Absolutely! I plan to complete a master's course at university in the next two years and work towards becoming a chartered engineer as I work.

What advice would you give your younger self?

Ask questions! Don't be afraid to do a google search or ask your teachers for advice- the world is your oyster. Don't underestimate yourself! Everything that you do is an opportunity to learn and grow, even if that means you might fail in the process. Work hard and persevere! Good things are coming



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