



WHY IT MATTERS...

AERONAUTICAL & AUTOMOTIVE ENGINEERING



Loughborough University

Laura Webber

Senior Aerodynamicist for Mercedes - AMG Petronas Formula One Team

Engineering is all about finding innovative solutions to problems. We rely on engineers to solve different complex problems in a massive range of industries and environments across the world. I currently work in a very niche field of engineering, but my degree opens the door to an extensive range of diverse and exciting career paths.

My degree was the launch pad that got me where I am today. The topics I studied, in particular those focused on aerodynamics, are directly relevant to what I do. It's great to put all the theory and knowledge I gained at university into practice in my everyday job.

The degree at Loughborough involves a great number of collaborative group projects where we work together as a team on design and experimental work. This is exactly how we approach tasks in the workplace so getting experience of this at university was invaluable.

Loughborough University actively encourages students to take a year out of their studies to gain experience in an industry related to their degree. I'm grateful that this gave me the chance to 'get my foot in the door' in F1 and set me off on my current career path.



Post 16 Education:

A Levels Maths, Physics, Chemistry
 AS Levels: Further Maths, 3D Design & EPQ
 BTEC Aviation Studies and Public Services
 (through RAF Air Cadets)

Higher Education:

MEng Aeronautical Engineering

Why did you choose Aeronautical Engineering?

I grew up very close to a small aerodrome and I think that sparked an interest in engineering, aircraft and cars. I was an active member in the RAF Air Cadets during secondary school and always enjoyed learning about, and experiencing first-hand, the physics of flying.

I knew I wanted a degree that built on what I'd learnt in both the RAF Air Cadets and my Maths and Physics lessons. My teachers encouraged me to attend a weeklong Engineering taster session at a nearby University. The week was a great showcase of all the different types of degrees on offer and helped me decide to study Aeronautical Engineering.





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Laura's experience as a student

I absolutely loved my time at Loughborough. I chose to study there because the department has great facilities including several wind tunnels which students use during their degree.

It was great to study on a big campus where there were so many activities. I wanted to try a new sport and after the annual Athletic Union Bazaar I joined the Loughborough Students Taekwondo Club. I trained with the club numerous times a week from my 2nd year right through to graduation and progressed from a complete beginner to Black Belt - something I am still quite chuffed about.

Most importantly I made so many great friends in the club who I regularly catch up with to this day.



Laura's Career

I am currently a Senior Aerodynamicist for Mercedes-AMG Petronas Formula One Team. I spend my day working alongside a great team of engineers developing the external surfaces on the F1 car. Our main goal is to make the car as quick as possible so that we can win the F1 Drivers' and Constructors' Championship. My day can involve anything from creating new ideas for components, to producing 3D computer designs, to running computer simulations, to leading an aerodynamic test of new parts on our scale model car in the wind tunnel.

I first joined the team for a yearlong placement in the middle of my degree after successfully completing an assessment centre at the factory. I spent an exciting and challenging year working on the design of the front end of the 2014 F1 car.

After completing a year with the team, I was invited back for a summer placement and was then very fortunate to be offered a role within the aerodynamics department on my graduation.

I've now been with the team full time for just under four years and am proud to say I've been involved in the design of all six of our Championship Winning Cars.

Laura's Advice: What do you enjoy? Have a good think about which your favourite subjects are both inside and outside of school. Studying at university takes commitment and I believe it's important to have passion for the subject you're studying. If you have a field that you're interested in then try and speak to your teachers, people in industry, or university students and do your research to find a degree to match your interests.

Loughborough University offer: Aeronautical Engineering MEng and BEng degrees

Loughborough University offer: Automotive Engineering MEng and BEng degrees