

The Ashbourne Engineering Programme (AEP)



Why study for an Engineering degree?

Many students believe a degree in engineering entails being good at only Maths and Physics, however it is an extremely broad degree.

Engineering students will be given the opportunity to explore a variety of modules related and unrelated to engineering during their time at university

Engineering degrees involve:

- Team projects
- Writing reports





Streams of Engineering we can support

- Aeronautical Engineering
- Aerospace Engineering
- Architectural Engineering
- Automotive Engineering
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Design Engineering
- Electrical Engineering
- Manufacturing Engineering
- Mechatronic Engineering
- Mechanical Engineering
- Petroleum Engineering
- Software Engineering
- Systems Engineering

Where can a degree in Engineering take you?



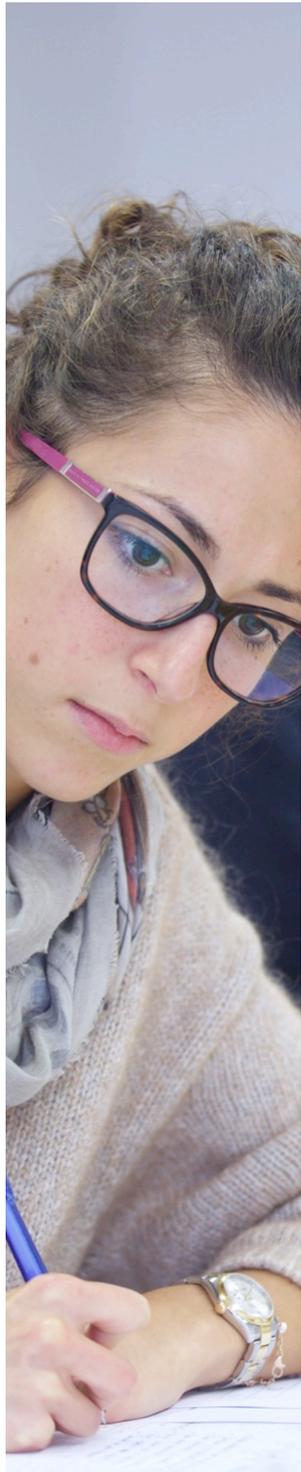
- Engineering is an incredibly in-demand career (there is currently a 1.8 million shortage of engineers in the UK). Students also enjoy high employment rates upon graduation at above average salaries
- However, a degree in Engineering also opens up many different career paths:
 - o Operations management
 - o Finance
 - o Banking
 - o Teaching
 - o Consultancy
 - o Project management
 - o Supply chain management
 - o Technology

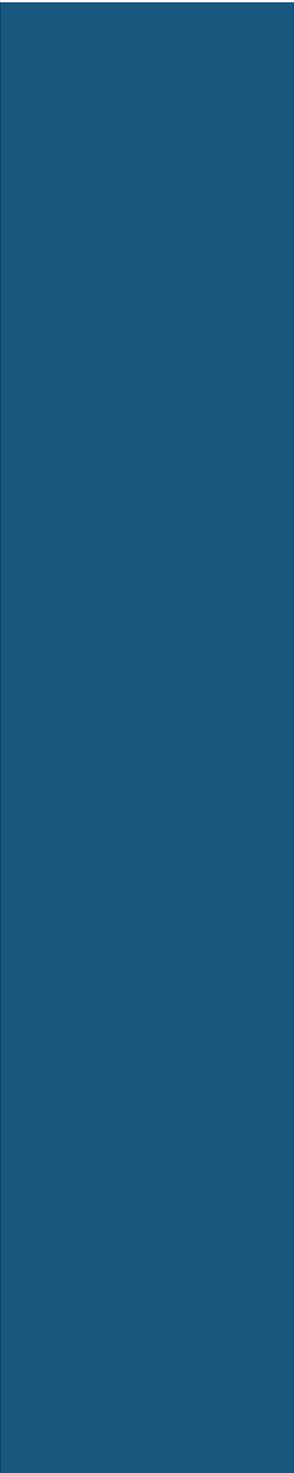
Top 10 UK universities for Engineering

Ranking	University
1	University of Cambridge
2	University of Oxford
3	UCL (University College London)
4	Imperial College London
5	Kings College London
6	University of Edinburgh
7	University of Manchester
8	LSE (London School of Economics)
9	University of Bristol
10	University of Warwick

Typical entry requirements: **A*A*A-
AAA**

UCAS





*‘We wanted to develop a
programme so that
students deepen their
understanding of what
engineering means’*

– Mike Kirby, Principal

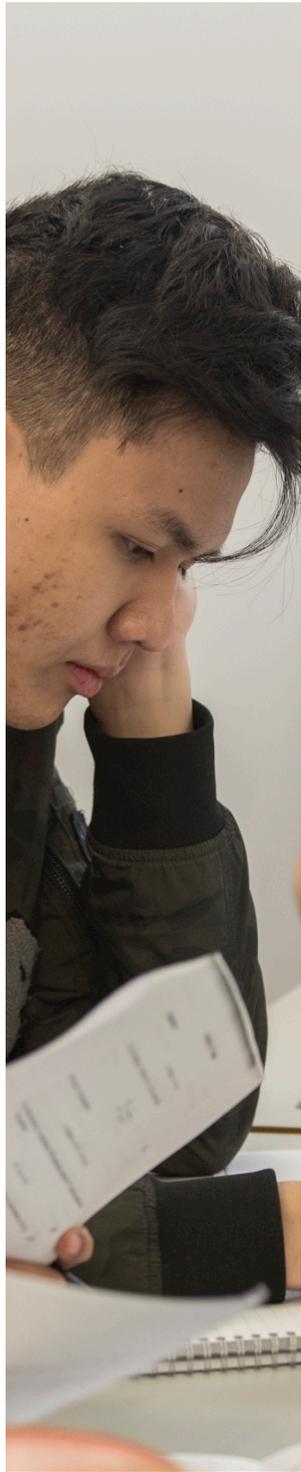
Sean Pillai: Head of the Engineering Programme



Despite being at Ashbourne for only 3 years, Sean is the lead mathematics teacher and is Deputy Head of Year 13. His enthusiasm with students is infectious and having obtained a Masters in Civil Engineering and Business at Warwick University, he is able to offer in-depth advice from his own experience to our engineering students.

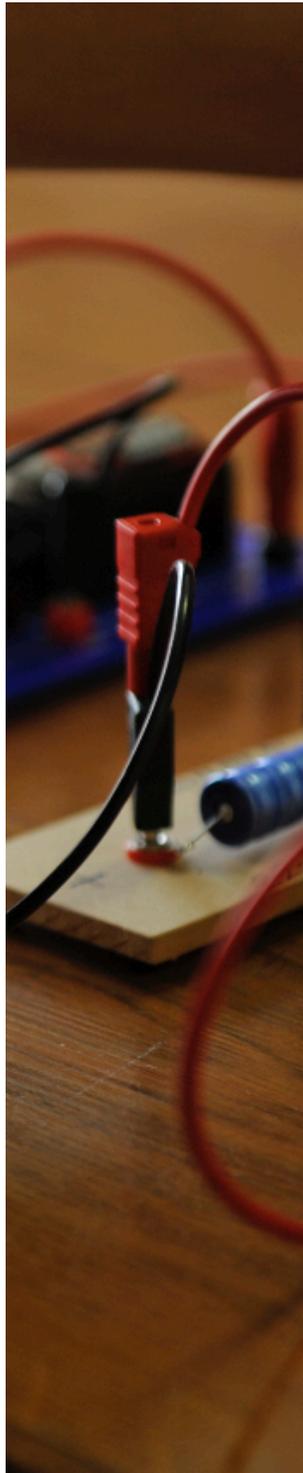
Throughout the year, Sean runs weekly engineering sessions involving seminars, talks, group projects and activities. He is able to guide students through their UCAS, ensuring that they have strong applications.





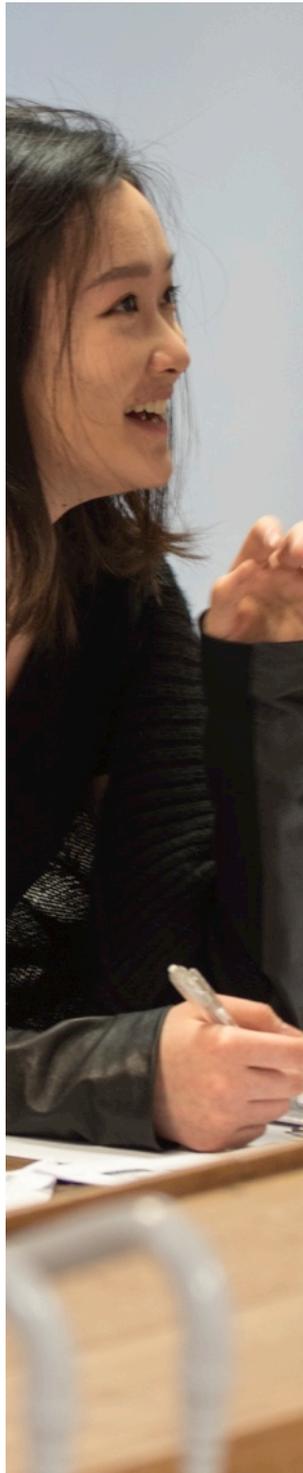
What is the purpose of the Ashbourne Engineering

- Develop the **Programme?** skills required for an engineering degree
- Meet ex-Ashers
- Secure work experience placements
- Create links with various universities such as Imperial College London and Warwick University
- Ensure students have a strong UCAS application



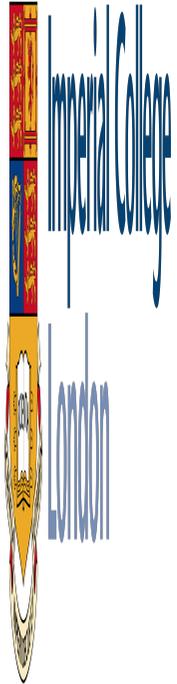
Contents of the Programme

- Group Activities
 - Egg challenge
- Group projects
 - Induction coil in electric cars
 - The future of 3D printing
 - Alternative sources of energy
 - Engineering behind the fastest car in the world
- Individual written reports
- Portfolio building
- Work experience
- Seminars/ talks
 - Professionals in the engineering field
 - Ex-Ashers



What is special about the AEP?

- Ashbourne is the only college in the UK that offers a weekly Engineering Programme
- The small group sizes ensure students are given individual attention and support
- Students have the opportunity to meet new people
- Improve skills such as researching, team work and public speaking
- Gather industry insight through seminars and talks



Ties with Imperial College London

Imperial College has become one of our engineering students' most popular university destinations

Each year a guest speaker from the Design Engineering Department of Imperial comes to talk to our students

The programme also welcomes back ex-Ashers who are currently reading Engineering at Imperial, giving them a chance to share their experience of studying engineering



Ex-Ashers Antonio & Jiaming
visiting
the AEP students



**Imperial College
London**

Our most popular Engineering university destinations*

University	Number of Ashbourne Students
UCL (University College London)	8
Imperial College	7
University of Warwick	4
University of Cambridge	3

* 2013-2017

Ashbourne Students



Yinlei Chen

Maths A*

Further maths A*

Physics A

Chinese A

University College London
Mechanical Engineering
with Business



Antonio Magalhães

Deccache

Maths A*

Further maths A*

Physics A*

Portuguese A*

Imperial College London
Civil Engineering



Jamie Gerstein

Chemistry A*

Physics A*

Further maths A*

*University of
Cambridge
Engineering*



Hong Minh Nguyen

Chemistry A*

Maths A*

Further maths A*

Physics A*

University of
Cambridge
Engineering



Physics & Maths at Ashbourne



Ashbourne Results 2017

Physics: 62% A*/A

Maths: 58% A*/A

Testimonies from Ashers

“At Ashbourne my hard work is always appreciated, and this inspires me to work even harder.... I’m especially excited about the AEP, as it is extremely beneficial for my prospective study of Civil Engineering. I will get to meet new people with the same passions as mine, and engage in fun-filled learning” – Meena Samir Bashier (A2 student)

“The culture and diversity in Ashbourne College impressed me the most. Having lessons with students from different countries, I was able to get in touch with different cultures. The College also organised a great variety of activities, such as go karting, bowling, etc. My UCAS tutor gave me sufficient support with my application. Not only did they help me with my personal statement, but also with my interview. That helped me be able to study Material Science and Engineering at the University of Manchester. Since there are at most 10 students in one class, everyone in Ashbourne was given enough attention, which made it possible for us to communicate with our teachers directly and instantly when we had questions.”
– Fanzhi Su (University of Manchester, Materials Science and Engineering)