

# Welcome to Chemical Engineering at Brunel

Discover  
Brunel

## Congratulations on securing your place at Brunel

We're looking forward to meeting you - either in person or online - and introducing you to life at Brunel.

To help us get started, we've put together a short activity and some further information to help you prepare for your course - including a snapshot of the topics you'll cover and useful resources.

If you have any questions please email [cedps-tpo-maceadmin@brunel.ac.uk](mailto:cedps-tpo-maceadmin@brunel.ac.uk).

## Pre-arrival activity

We'd like you to complete a short activity before you join us. We can discuss your answers in one of your first personal tutor sessions. Your work will not be officially assessed however it will allow your tutor to get to know you better.

### Which is the largest power plant in the UK and how does it operate?

Come prepared to share your thoughts on how it is linked to Chemical Engineering and how it is comparable to similar power plants across the world.

## Sample lecture topics

As you progress through your degree, these are the types of questions you'll be able to answer with confidence as a professional chemical engineer:

1. What is Chemical Engineering? How does Chemical Engineering differ from chemistry and other engineering disciplines?
2. What are the unit operations in Chemical Engineering?
3. How would you design and develop a chemical/biochemical engineering process for industry?
4. The engineering profession is acutely aware of its responsibilities to society, public health and its management of our shared natural resources. How does Chemical Engineering play an important role in sustainable development?
5. What do Chemical Engineers do after their graduation? How would you become a professional engineer and future leader?
6. How would you integrate digitalisation and cyber security to chemical and biochemical engineering processes to address future challenges?

## Reading list

These are two core Chemical Engineering textbooks that will be useful throughout your career.

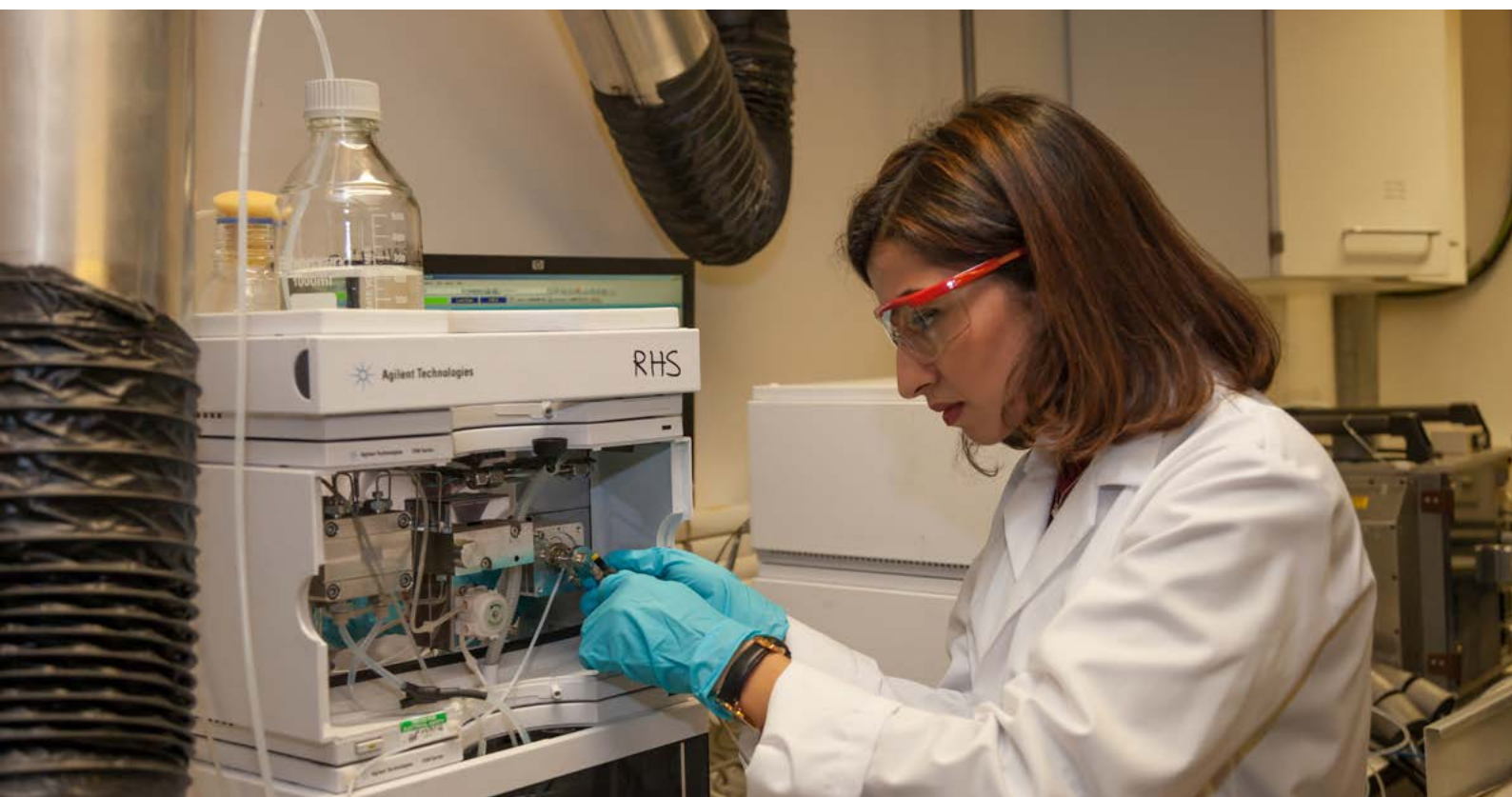
- Smith, R. (2016) Chemical Process Design and Integration 2nd Ed. Wiley.
- Green, D. and Southard, M. Z. (2018) Perry's Chemical Engineers' Handbook 9th Ed. McGraw-Hill.

The following books are core texts for the first year and electronic access will be available for your study once you are registered at Brunel.

- Stroud, K. A. and Booth, D. J. (2013) Engineering Mathematics 7th Ed. Palgrave.
- Hibbeler R. C. (2016) Engineering Mechanics: Statics in SI Units 14th Ed. Pearson
- Hibbeler R. C. (2016) Engineering Mechanics: Dynamics in SI Units 14th Ed. Pearson
- Boylestad R. L. and Nashelsky L. (2013) Electronic Devices and Circuit Theory 11th Ed. Pearson
- Massey, B. S. and Ward-Smith J. (Ed.) (2011) Mechanics of Fluids 9th Ed. Routledge

We look forward to meeting you in Welcome Week (Monday 21 – Friday 25 September).

*Chemical Engineering Team*



Find out more about Welcome Week  
[brunel.ac.uk/welcome-week](https://brunel.ac.uk/welcome-week)

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