# **Introduction to Electronic and Electrical Engineering**

## We're delighted you're thinking about studying at Brunel University London.

Our lecturers have put together the following information to help you prepare for your course. This will give you a snapshot of the materials and reading list you'll be using. You'll get a full breakdown of information before you enrol.

On our website you can also find out more about your modules and chat to a current student.

If you have any more questions, please get in touch.

We look forward to welcoming you to Brunel.

#### Sample lecture/coursework questions

- 1. What do you understand by electrical voltage, current, and resistance?
- 2. What are nodes, branches, and loops in an electrical circuit?

### **Reading list**

- R. L. Boylestad, "Introductory Circuit Analysis", Pearson Education, 2016
- <u>All About Circuits</u>
- <u>Electronics Tutorials</u>

#### **Indicative content**

- Signals and statistics concepts relevant to measuring electrical properties
- · Voltage, current, resistance, charge, energy, power, electric/magnetic field strength
- Conservation laws and their application to electric circuits, stored energy in capacitors and inductors
- Analysis of DC and AC circuits, including mesh and nodal analysis and circuit transformations



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