

# Introduction to Mechanical, Aerospace and Automotive Engineering

Discover Brunel

## 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

Three core topics to get you started on Statics.

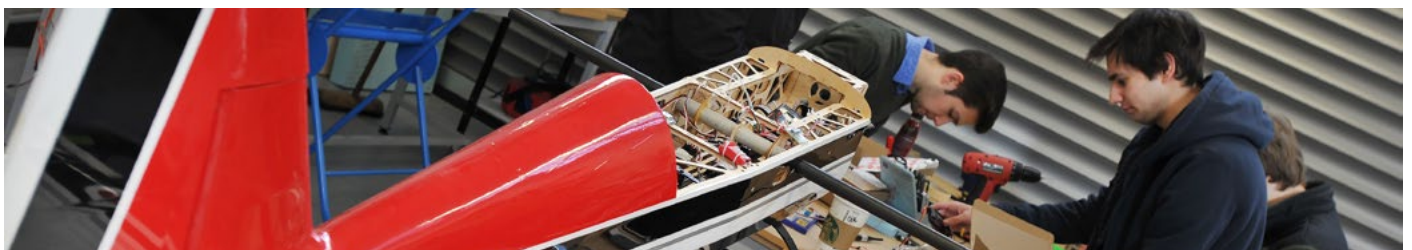
1. [Vector analysis: the basics](#)
2. [Equilibrium of a particle: here the use of vector analysis is required](#)
3. [Moment produced by a force vector](#)

More advanced topics.

4. [Equivalent system force-moment: learn how to build an equivalent system that is in the same equilibrium conditions as the original system](#)
5. [Equilibrium of rigid bodies: different types of supports and reactions, and how to derive equilibrium equations](#)
6. [Beams: transverse shear force diagram, bending moment diagram](#)

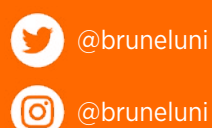
### Reading list

- "Engineering Mechanics: Statics", R.C. Hibbeler
- "Vector Mechanics for Engineers: Statics", F. Beer and E. Johnston
- "Engineering Mechanics: Statics", J.L. Meriam, J.N. Bolton and L.G. Kraige
- "Stress Analysis for Lightweight Structures: A Matlab Oriented Approach", R. Cardoso



Explore Brunel at our open days.  
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