Oxbridge
INTERVIEWS

Engineering
Suggested Reading

Engineering is about designing processes and making products to solve real-world problems. An Engineering degree will develop your engineering knowledge, skills, imagination and experience, and will equip you for a career in Engineering or, if you choose, a range of other careers which value finely-tuned problem solving abilities. Possible industries include consultancy, IT, finance, and management. You may not know that Alfred Hitchcock was an Engineering Graduate!

Here are some suggestions of ways you can start exploring the subject. The key to enjoying something and getting the most out of it is to follow your nose and look into what interests you. Starting with something more general and then asking yourself 'What do I want to know more about?' will help guide you towards reading which you will find interesting.

1. **Structures: Or Why Things Don't Fall Down**, by J.E. Gordon is a very readable and highly informative book on everyday engineering structures.
2. **How do Wings Work?** This article by Holder Babinsky explains how lifts actually work, and is available free here http://iopscience.iop.org/0031-9120/38/6/001.
3. **Sustainable Energy – Without the Hot Air**, David J.C. Mackay is available as a free download at www.withouthotair.com/download.html.
4. **hackaday.com** is a blog which will inspire you to see Engineering as a hands-dirty way of doing cool stuff, not the quite theoretical subject it can seem like at university. Take a look through the archives and you will almost certainly find a project you want to try. They have everything from 3D printing to transportation hacks by way of Android programming and chemistry.
5. **Hackspaces** are local clubs around the country and are an accessible way into designing and prototyping. A reasonably complete list of active ones is here: http://www.hackspace.org.uk/view/Main_Page. This is a great way to get hands on with designing and creating, and to talk to others about the subject.
6. **Profserious**, the wonderfully titles blog by Anthony Finkelstein, Professor of Software Systems Engineering at UCL, http://blog.prof.so/.
7. **Engineering: A Beginner's Guide**, by Natasha McCarthy is a great introduction to Engineering's place in society.
8. Henry Petroski, Professor of Civil Engineering at Duke University, has written a number of popular Engineering books. Try **To Engineer is Human: The Role of Failure in Successful Design**.
9. **Seven Wonders of the Industrial World** is a BBC documentary by Deborah Cadbury. She has also written an accompanying book of the same title. For an introduction to what these are about: http://www.bbc.co.uk/history/british/victorians/seven_wonders_01.shtml.
10. Cambridge University publishes a list of books that previous applicants have found useful and enjoyable, http://www3.eng.cam.ac.uk/admissions/information/reading.html.