



Reading and activities list for Engineering

Checklist of Actions for Oxbridge preparation

- Complete the course and college research booklet which covers entry requirements for your course (e.g. admissions tests during interviews). Use it to help you make informed choices.
- Respond and maintain email contact with your OMS Mentor and do not hesitate to ask questions which may help your Oxbridge preparation.
- Read British broadsheets such as The Daily Telegraph, The Independent or The Guardian preferably every day (if not feasible, then at weekends). Think critically about what you have read; what issues are raised?; What assumptions are being made? What information is being relied on to draw which conclusions? How would you frame a counter-argument?
- Make note of subject-related terminology to look up definitions with the aim of working them into future academic discussions on your chosen Oxbridge course.
- Keep a "Learning Log". Note down (i) book titles/ articles (ii) author (iii) your thoughts, feelings and observations (iv) context and relevance of the book/article (v) whether you agree with what you have read.
- Visit the Royal Society website, which contains all the important science news. It also lists all forthcoming science programmes and public lectures.

ENGINEERING SCIENCE

- Introductory reading can be found by clicking the following link: <http://www.eng.cam.ac.uk/admissions/information/reading.html> .
- Cambridge Engineering candidates need to pass the maths mechanics modules, so check you will be sitting this, as well as doing AS Further Maths. You could also do a maths AEA or STEP.

PHYSICS

- Attempt to read some of the following:
 - RP Feynman, *The Character of Physical Law*, Penguin
 - T Hey and P Walters, *The Quantum Universe*, C.U.P.
 - J Walker, *The Flying Circus of Physics*, C.U.P.
 - B Bryson *A Short History of Nearly Everything*, Transworld/Doubleday
 - T Ferris, *Coming of Age in the Milky Way*, Anchor/Doubleday
 - G Gamow (Ed: R Stannard), *The New World of Mr Tompkins*, C.U.P.
- Keep a list of all books and authors read and your thoughts, feelings and observations in relation to them. Come prepared to talk about your reading at our next meeting.
- Check that you understand and can define the key concepts you come across in your reading, creating a cumulative list of definitions during your Oxbridge preparation.

MATHS

- Find interesting maths problems, news and ideas on two further websites:
 - NRICH - <http://rich.maths.org/public/index.php>
 - Plus magazine - <http://pass.maths.org.uk/>