

Reading list 2009–10

116 Abstract mathematics

The current edition of the subject guide is the 2006 edition. This reading list was last updated in May 2009. Any queries about this reading list should be directed to externalstudy@lse.ac.uk.

Essential reading

For the **numbers and proof** part of this subject, you should obtain copies of the following two books. It is enough to have one of them, but best to have both.

Biggs, Norman L. *Discrete Mathematics*. (Oxford: Clarendon Press, 2003) second edition [ISBN 9780198507178].

Eccles, P.J. *An Introduction to Mathematical Reasoning; numbers, sets and functions*. (Cambridge University Press, 1997) [ISBN 9780521597180].

For the **analysis** part, there are many suitable books, the one recommended most is the following:

Bryant, Victor. *Yet Another Introduction to Analysis*. (Cambridge University Press, 1990) [ISBN 9780521388351].

You may also find these titles useful:

Binmore, K.G. *Mathematical Analysis: A Straightforward Approach*. (Cambridge University Press, 1982) second edition [ISBN 9780521288828].

Bartle, R.G. and D.R. Sherbet. *Introduction to Real Analysis*. (John Wiley and Sons: 1999) third edition [ISBN 9780471321484].

For the topic of **complex numbers** your main reading will be this subject guide, but a text that covers this topic (and which is also useful for unit 118 Advanced linear algebra) is:

Anton, H. *Elementary Linear Algebra*. (John Wiley, 2005) ninth edition [ISBN 9780471449034].