

Preliminary Reading List

'*Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins*', A. Baxevanis and B.F. F. Ouellette.

'*Genomes 3*', T.A. Brown

(2nd edition available online: <http://www.ncbi.nlm.nih.gov/books/NBK21128/>)

For some of the practical sessions in R, we will make good use of the statistical programming environment, www.r-project.org

Online course in R: <https://www.coursera.org/course/rprog>

A good book to get you started in R: '*Introduction to Scientific Programming and Simulation with R*', Owen Jones, Robert Maillardet and Andrew Robinson

'*Computational Genome Analysis*', Richard Deonier, Simon Tavaré and Michael Waterman.

The following titles are recommended maths textbooks for those of you who are coming from a biological background and want to brush up on the mathematics:

'*Applied Statistics for Engineers and Physical Scientists*', Johannes Ledolter and Robert Hogg,

(Chapters 2, 3 and 4)

'*Statistical Methods in Bioinformatics: An Introduction*', Warren Ewens and Gregory Grant

(Chapters 1, 3, 8 and 9)

'*Introductory Statistics with R*', Peter Dalgaard, (Chapter 2)

'*Biological Sequence Analysis*' Richard Durbin et al. (first few chapters)

MIT have produced a 'statistics and probability primer' for computational biologists at:

<http://tinyurl.com/compbiostatsprimer>