

Week	Date	Methods	References
1	Sept 15	Review of Linear Regression	LM-2 Ch.2-4; LM-1 Ch.2-3; CD Ch.1; SM Ch.8.2.1, 8.3
2	Sept 22	Model comparison, diagnostics , collinearity , factors, steps in analysis , components of investigation, design and analysis	LM-2 Ch.1,3, Ch.14-1,2; LM-1 Ch.1,3, Ch.13; CD Ch.1
3	Sept 29	Model Comparison, diagnostics ; Model Selection , Types of Studies	LM-2 Ch.6; LM-1 Ch. 4; CD Ch.1,2
4	Oct 6	Model Selection , Model Building	LM-2 Ch.14-17; LM-1 Ch.14-16 CD Ch.6.5,7.3; SM 8.7
5	Oct 13	Designed experiments of studies ; preliminary analysis unit of analysis , factor and continuous variables	LM-2 Ch.14.2; LM-1 Ch.13.2; CD Ch.2;
6	Oct 20	Common designs , analysis of variance , interaction Logistic Regression	LM-2 Ch.15,16; SM Ch.9.2; ELM-1 Ch.2
7	Oct 27	Logistic regression; Intro to Generalized Linear Models	ELM-1 Ch.2,3, 6; SM 10.3
8	Nov 3	Generalized Linear Models	ELM-1 Ch.3.1,6,7; SM 10.6
9	Nov 10	Break	
10	Nov 17	Catch-up	
11	Nov 24	Nonparametric Regression	ELM-1 Ch. 11; CD Ch.8; SM 10.7.1,2

Week	Date	Methods	References
12	Dec 1	Nonparametric Regression	ELM-1 Ch. 11; CD Ch.8; SM 10.7.1,2
13	Dec 8	Recap	

Comments

This shows the main topics we'd like to cover, but is subject to adjustment as the course evolves. Electronic copies of the books listed below are available through the U of T Library, and have been posted to Quercus.

The books by Faraway are somewhat easier to read, so if you find Davison daunting go to those first and then come back to Davison after the lecture. The book by Cox & Donnelly is quite different as it sets out very general principles that are well worth reviewing as we go along.

In most weeks I will spend approximately 1 hour on the methods in the table above, 1 hour on selected case studies, and 1 hour on computing, discussion, and questions about the course and assignments.

References

SM: Statistical Models by A.C. Davison (Cambridge University Press)

CD: Principles of Applied Statistics by D.R. Cox and C.A. Donnelly

LM-1: Linear Models with R 1st edition by J.J. Faraway (Chapman & Hall)

LM-2: Linear Models with R 2nd edition by J.J. Faraway (Chapman & Hall)

ELM-1: Extending the Linear Model with R 1st edition by J.J. Faraway (Chapman & Hall)

ELM-2: Extending the Linear Model with R 2nd edition by J.J. Faraway (Chapman & Hall)