Biomeasurement

Statistical analysis allows us to attach meaning to data that we have collected; it helps us to understand what results really mean, and to assess whether we can trust what experiments seem to be telling us. Yet, despite being one of the most valuable and important tools available to bioscientists, statistics is the aspect of study that most students fear more than any other.

Biomeasurement offers a refreshing, student-focused introduction to the use of statistics in the study of the biosciences. With an emphasis on why statistical techniques are essential tools for bioscientists, the book gives students the motivation and confidence to use and further explore the key techniques for themselves.

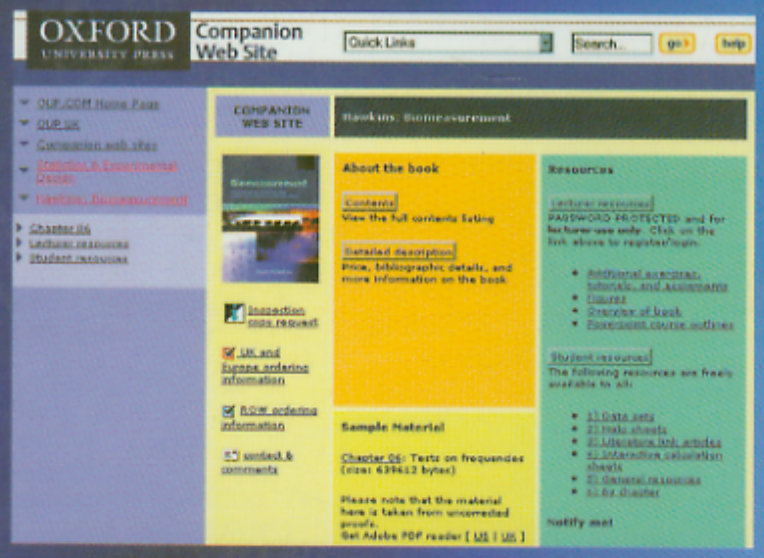
The book guides the student through the use of descriptive and inferential statistics, walking them step-wise through the key statistical techniques, using carefully integrated examples, with plentiful opportunities for hands-on practice to help explain how and why each test is used.

- Emphasis is placed on explanation so that students are guided through the key concepts and techniques in a steady, progressive way.
- Use of real data sets enables students to build confidence in handling actual data.
- 'Literature links' illustrate the use of the techniques presented in real world research work, highlighting the importance of statistics in 'real' science.
- Detailed step-by-step guidance on the use of SPSS is given, with support for other statistical packages provided on the book's companion web site.
- Draws on a broad range of bioscience examples, including those from the fields of biomedicine, genetics, cell biology, biochemistry, ecology, and conservation.

Whatever their preconceptions regarding statistics, *Biomeasurement* will be sure to engage even the most wary of students, demonstrating the importance of statistics throughout the biosciences.

COMPANION WEB SITE

www.oup.com/uk/booksites/biosciences



The companion web site, co-authored by Dr Toby Carter, includes

For the student:

- A resource pack for each statistical technique covered
- Data sets
- Statistical software help sheets
- Interactive calculation sheets
- Full PDFs of literature link research articles

For the lecturer:

- Figures from the book, available to download
- Additional exercises, tutorials, and assignments
- PowerPoint lecture outlines

Dr Dawn Hawkins is a Senior Lecturer, School of Life Sciences, Anglia Polytechnic University, Cambridge, UK.

OXFORD
UNIVERSITY PRESS

www.oup.com

ISBN 0–19–926515–1

9 780199 265152