

Praise for the previous edition:

'Excellent text covering everything from how to design a study to how to report the results. Well described statistical methods sections with plenty of worked examples to keep students interested and engaged.'

Dr Charlotte Chalmers, Edinburgh Napier University

The only text to cover in one concise resource all the key aspects of research methodology that undergraduate bioscience students need to know.

Scientific research lies at the heart of discovering answers to biological questions; to be a successful bioscientist you need to approach its central themes—experimental design, analysis, and the communication of research—with confidence. Skilfully integrating all of the key elements of biological research, *Research Methods for the Biosciences* is the perfect stand-alone guide that you can use throughout your degree.

Research methods can often seem abstract; this book brings them to life by using examples taken from real undergraduate research. It provides friendly guidance and advice throughout, and assumes little prior knowledge or mathematical experience. Statistical analysis is a skill best learned through doing, and frequent worked examples throughout Part Two 'Handling your data' show you step-by-step how to carry out these tests for yourself.

NEW TO THIS EDITION

- A new chapter, 'Which statistical test should I choose?' includes a unique key designed to make the process more straightforward.
- Online guidance reviews the US legislation relating to biological research.
- New video screencasts take you step-by-step through using statistical software.



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FOR STUDENTS

- Video screencasts demonstrate how to use software such as Excel, SPSS, Minitab, and RStudio to carry out statistical analyses.
- Integrative exercises to help you test your understanding of the topics in the book.
- Statistical software walkthroughs for SPSS, Excel, and Minitab show how to use these software packages in relation to particular examples from the book.
- Additional statistical tests and full details of all the calculations given in the in-text boxes are provided for those who want to take things further.
- An interactive and printable risk assessment form available to download for your own use.
- An interactive decision tree to help you design your experiment.

FOR LECTURERS

- Figures from the book available to download.
- A comprehensive test bank of questions.
- Assessment formats that can be used to complement the content and approach taken in this book.

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