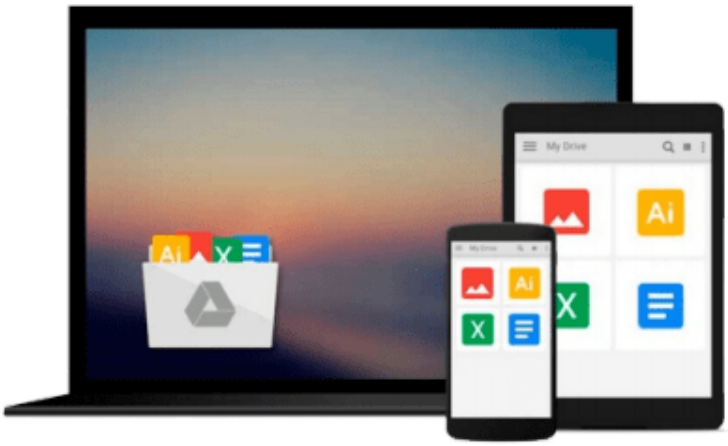

Mathematics for the Life Sciences

Erin N. Bodine, Suzanne Lenhart, Louis J. Gross

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The life sciences deal with a vast array of problems at different spatial, temporal, and organizational scales. The mathematics necessary to describe, model, and analyze these problems is similarly diverse, incorporating quantitative techniques that are rarely taught in standard undergraduate courses. This textbook provides an accessible introduction to these critical mathematical concepts, linking them to biological observation and theory while also presenting the computational tools needed to address problems not readily investigated using mathematics alone.

Proven in the classroom and requiring only a background in high school math, *Mathematics for the Life Sciences* doesn't just focus on calculus as do most other textbooks on the subject. It covers deterministic methods and those that incorporate uncertainty, problems in discrete and continuous time, probability, graphing and data analysis, matrix modeling, difference equations, differential equations, and much more. The book uses MATLAB throughout, explaining how to use it, write code, and connect models to data in examples chosen from across the life sciences.

- Provides undergraduate life science students with a succinct overview of major mathematical concepts that are essential for modern biology
- Covers all the major quantitative concepts that national reports have identified as the ideal components of an entry-level course for life science students
- Provides good background for the MCAT, which now includes data-based and statistical reasoning
- Explicitly links data and math modeling
- Includes end-of-chapter homework problems, end-of-unit student projects, and select answers to homework problems
- Uses MATLAB throughout, and MATLAB m-files with an R supplement are available online
- Prepares students to read with comprehension the growing quantitative literature across the life sciences
- Forthcoming online answer key, solution guide, and illustration package (available to professors)

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The experience that you get from Mathematics for the Life Sciences could be the more deep you excavating the information that hide inside the words the more you get interested in reading it. It does not mean that this book is hard to understand but Mathematics for the Life Sciences giving you joy feeling of reading. The writer conveys their point in particular way that can be understood by means of anyone who read the item because the author of this e-book is well-known enough. This kind of book also makes your personal vocabulary increase well. Therefore it is easy to understand then can go along, both in printed or e-book style are available. We highly recommend you for having this specific Mathematics for the Life Sciences instantly.

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