

An Introduction to Biotechnology is a biotechnology textbook aimed at undergraduates. It covers the basics of cell biology, biochemistry and molecular biology, and introduces laboratory techniques specific to the technologies addressed in the book; it addresses specific biotechnologies at both the theoretical and application levels. Biotechnology is a field that encompasses both basic science and engineering. There are currently few, if any, biotechnology textbooks that adequately address both areas. Engineering books can be equation-heavy and are commonly written in a manner that is very difficult for the non-engineer to understand. Biology-focused textbooks often lack the practical depth needed to fully appreciate technological applications and their effect on our lives.

Key features include:

- the necessary basic scientific background for understanding how a technology works
- a pedagogical approach that transitions the reader from scientific theory to laboratory applications, then builds upon the laboratory practice to expand into real-world applications
- built-in flexibility that allows the instructor to tailor the amount of basic versus applied science and engineering that will be used in a particular course
- an integrated work written by an author with first-hand experience of the major biotechnologies of today

Prof. W T. Godbey has been working with biotechnology as a bioengineer for over 17 years, and is currently a professor at Tulane University in New Orleans, Louisiana, USA. Dr. Godbey has started two businesses, one being a biotechnology company, and is the primary inventor on a patented technology for a targeted cancer therapeutic. He has worked directly with most of the technologies presented in this book, including gene therapy, tissue engineering, regenerative medicine, stem cells, fermentation, biofuels, and genetically modified organisms. His current research interests include the use of gene therapy for carcinoma treatment, controlled release applications for efficient gene delivery, and the use of gene delivery for cellular engineering.



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