Modern Genetic Analysis: Integrating Genes and Genomes

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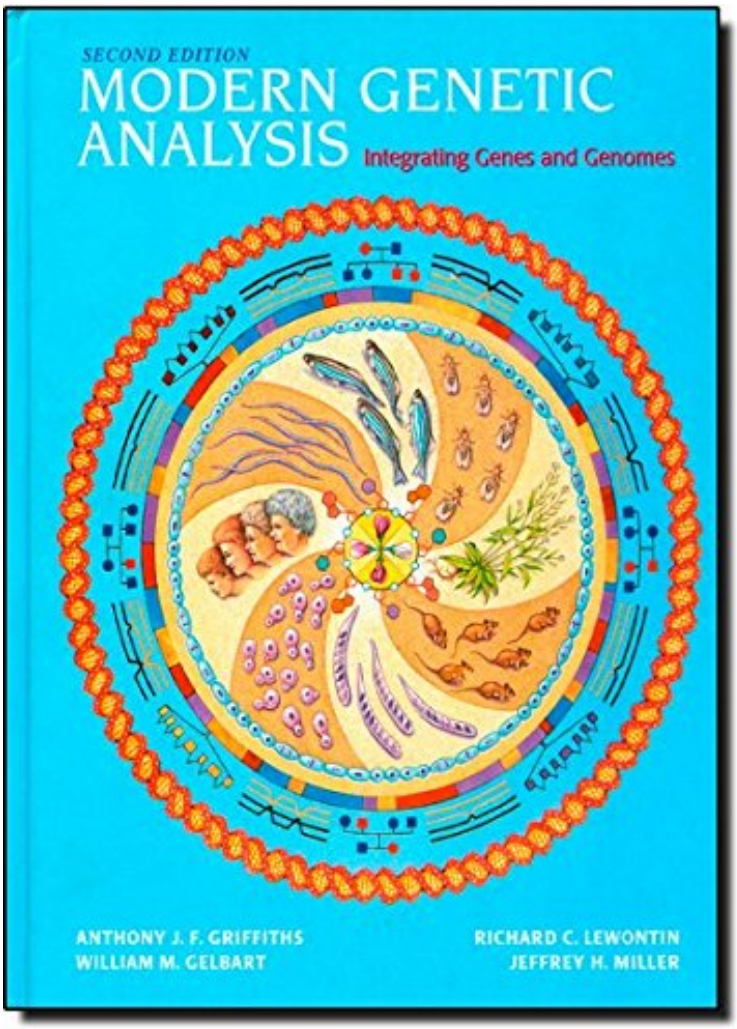

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Anthony J.F. Griffiths, William M. Gelbart, Richard C. Lewontin, Jeffrey H. Miller : Modern Genetic Analysis: Integrating Genes and Genomes before purchasing it in order to gage whether or not it would be worth my time, and all praised Modern Genetic Analysis: Integrating Genes and Genomes:

29 of 31 people found the following review helpful. An incredible jobBy Dr. Lee D. CarlsonIn the last few years several very good textbooks and monographs in genetics have appeared, due mainly to the success of various genome projects and also to the rise of bioinformatics as a new discipline in biology, computer science, and mathematics. Most of these textbooks have appeared in many prior editions, and comparing these older editions with the newest ones, one can indeed see a remarkable difference in enthusiasm in the authors. They are clearly very excited about the developments in molecular biology and genetics that have taken place and the confidence among biologists that the

fundamental understanding of life is finally within reach. Readers can share their excitement by the study of these books, and doing so one cannot help but be marveled by the incredible ingenuity of the scientific methods used to unravel the processes of life. Of all these excellent books, I find this one to be the best, and my judgment of the book's quality is from the standpoint of someone who is very involved in the algorithms behind bioinformatics and mathematical biology and is attempting to gain, as quickly as possible, the necessary background in genetics. My review therefore will be primarily addressed to those mathematicians or even physicists who plan on moving into bioinformatics. To relative newcomers to genetics such as myself, the learning of molecular biology and genetics can involve a huge amount of memory work. To the more mathematically-inclined reader, the memorization of facts can be most unpalatable. The learning of the material in this book will also involve such extreme exercises in memory, but there are a few strategies that the authors employ that, even though they were directed at a general readership, actually serve to make the learning much easier for the mathematician or mathematical biologist. These are the use of concept maps and the assigning of "challenging problems" at the end of most chapters in the book. These serve effectively to make the reader think through and interconnect the many concepts, which for the mathematician who is used to the economy of thought that mathematics brings, is an absolute necessity for the learning experience. Also, the authors are well aware of the need for students to learn how to analyze data and interact with online databases, so a lot of the material in the book is written to address this need. Even from merely an aesthetic point of view the book is exceptional, as the soft colors used in the illustrations are very beautiful, and actually serve to make the learning of the material very pleasureful. And in addition, the reader can access the book's Website and follow the many animations that were put together for the book. And here again, the playing of these animations increase the speed in which one can learn the subject. The authors also ask the readers to consider the impact that biotechnology and genetic engineering will have in the upcoming decades. One of the most dramatic, and I think the most important paragraphs in the book is the one in which the authors state that "the public cannot relay on reports published in the general media for the kind of critical evaluation needed to make informed personal and political decisions. Nor can it be left to experts, who have their own biases and agendas. There is no substitute for acquiring the kind of basic knowledge of genetics that is essential to all informed decisions." Their goal is provide the background that will allow the reader to differentiate between bad and good claims about genetics, and to think critically about both the negative and positive aspects of genetic research and genetic engineering. I believe the use of genetic engineering and biotechnology in all biological systems, both human and non-human, holds the best hope for the future of life on earth. This book has given an excellent introduction to the biology and genetics behind these technologies. The excitement and optimism expressed in the book will no doubt encourage many individuals to further their studies in genetics and enter the new biological professions of the 21st century.0 of 0 people found the following review helpful. Five StarsBy Jaredgood book0 of 2 people found the following review helpful. A Great Deal!!!By AryaThough I ordered a used book it was in good condition. Good for the price. One or two pages were loosely attached. Fast shipping. I'm totally satisfied with this product and happy to recommend this to another customer.....:).

Modern Genetic Analysis, Second Edition, the second introductory genetics textbook W.H. Freeman has published by the Griffiths author team, implements an innovative approach to teaching genetics. Rather than presenting material in historical order, Modern Genetic Analysis, Second Edition integrates molecular genetics with classical genetics. The integrated approach provides students with a concrete foundation in molecules, while simultaneously building an understanding of the more abstract elements of transmission genetics. Modern Genetic Analysis, Second Editionalso incorporates new pedagogy, improved chapter organization, enhanced art, and an appealing overall design.