

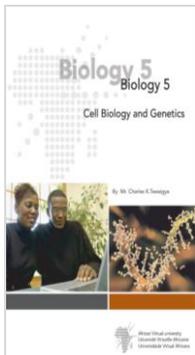


Faculty Review of Open eTextbooks

The [California Open Educational Resources Council](http://www.cool4ed.org) has designed and implemented a faculty review process of the free and open etextbooks showcased within the California Open Online Library for Education (www.cool4ed.org). Faculty from the California Community Colleges, the California State University, and the University of California were invited to review the selected free and open etextbooks using a rubric. Faculty received a stipend for their efforts and funding was provided by the State of California, the William and Flora Hewlett Foundation, and the Bill and Melinda Gates Foundation.

Textbook Name:

Cell Biology and Genetics



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Format

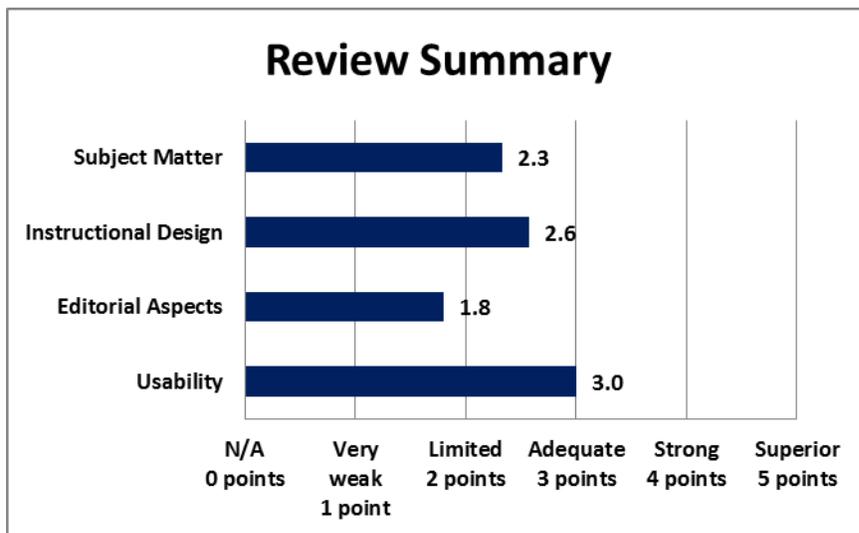
Reviewed:

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Date Reviewed:

December 2015



California OER Council eTextbook Evaluation Rubric

CA Course ID: [BIOL 190](#)

Subject Matter (30 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the content accurate, error-free, and unbiased?		X				
Does the text adequately cover the designated course with a sufficient degree of depth and scope?			X			
Does the textbook use sufficient and relevant examples to present its subject matter?				X		

Does the textbook use a clear, consistent terminology to present its subject matter?			X			
Does the textbook reflect current knowledge of the subject matter?		X				
Does the textbook present its subject matter in a culturally sensitive manner? (e.g. Is the textbook free of offensive and insensitive examples? Does it include examples that are inclusive of a variety of races, ethnicities, and backgrounds?)						X

Total Points: 14 out of 30

Please provide comments on any aspect of the subject matter of this textbook:

- The topics of this module include cell biology (structure and function of cells, transcription, translation, enzymes, cell division, techniques (microscopy and cytology) and genetics (Mendelian, Chromosomal theory, population, some biotechnology applications).
- This text contains some content but relies heavily on external sources for information. Most of these are not necessarily stable (e.g. Wikipedia, professor's personal websites for their courses) and none have apparently been updated since 2006. There are numerous inaccuracies and much out of date material included in the text. Some applications of concepts are presented and the end of the book contains an extended discussion of teaching cell biology and genetics, philosophy of science and pedagogy in general. This includes an extensive (if dated) list of references. The end of the text also covers a few examples of uses of statistics in genetic analysis.
- The text contains review questions (most of them are lower Bloom level) for the topics covered, a pre-assessment, and sections on formative and summative evaluations. No other ancillary materials are offered.

Instructional Design (35 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Does the textbook present its subject materials at appropriate reading levels for undergrad use?				X		
Does the textbook reflect a consideration of different learning styles? (e.g. visual, textual?)	X					
Does the textbook present explicit learning outcomes aligned with the course and curriculum?						X
Is a coherent organization of the textbook evident to the reader/student?					X	
Does the textbook reflect best practices in the instruction of the designated course?		X				
Does the textbook contain sufficient effective ancillary materials? (e.g. test banks, individual and/or group activities or exercises, pedagogical apparatus, etc.)		X				
Is the textbook searchable?					X	

Total Points: 18 out of 35

Please provide comments on any aspect of the instructional design of this textbook:

- The book is highly organized in a hierarchical outline format. There are learning objectives, rationales and summaries for each chapter.

Editorial Aspects (25 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the language of the textbook free of grammatical, spelling, usage, and typographical errors?				X		
Is the textbook written in a clear, engaging style?			X			
Does the textbook adhere to effective principles of design? (e.g. are pages laid out and organized to be clear and visually engaging and effective? Are colors, font, and typography consistent and unified?)		X				
Does the textbook include conventional editorial features? (e.g. a table of contents, glossary, citations and further references)			X			
How effective are multimedia elements of the textbook? (e.g. graphics, animations, audio)		X				

Total Points: 9 out of 25

Please provide comments on any editorial aspect of this textbook:

- The book lacks a detailed table of contents. The diagrams are few and often of poor quality. Most appear to be borrowed from existing sites either by permission or from the creative commons. There are significant typographical errors. The book could benefit from rigorous copy and content editing.

Usability (25 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the textbook compatible with standard and commonly available hardware/software in college/university campus student computer labs?					X	
Is the textbook accessible in a variety of different electronic formats? (e.g. .txt, .pdf, .epub, etc.)				X		
Can the textbook be printed easily?					X	
Does the user interface implicitly inform the reader how to interact with and navigate the textbook?			X			
How easily can the textbook be annotated by students and instructors?			X			

Total Points: 15 out of 25

Please provide comments on any aspect of access concerning this textbook:

- The book is provided in PDF and Word formats, which have all the limitations and benefits of these file formats.

Overall Ratings	Not at all (0 pts)	Very Weak (1 pt)	Limited (2 pts)	Adequate (3 pts)	Strong (4 pts)	Superior (5 pts)
What is your overall impression of the textbook?		X				
How willing would you be to adopt this book?	X	Strong reservations (1 pt)	Limited willingness (2 pts)	Willing (3 pts)	Strongly willing (4 pts)	Enthusiastically willing (5 pts)

Total Points: 1 out of 10

Overall Comments

If you were to recommend this textbook to colleagues, what merits of the textbook would you highlight?

- The book might be useful for basic quiz or review questions on common biology topics related to cell biology and genetics. The learning objectives might also be useful. This text might be useful if very old and weak computers were the only equipment and there was only very slow or low bandwidth internet available.

What areas of this textbook require improvement in order for it to be used in your courses?

- This book should be updated. There are many free and easily accessible web resources related to the topics covered. Rather than focusing on Wikipedia and personal course pages, the authors could create a course in MERLOT with a collection of high quality animations, tutorials. This text seems to hail from a pre-Web 2.0 era, and does not make use of any of the innovative, graphically appealing resources available today.

We invite you to add your feedback on the textbook or the review to [the textbook site in MERLOT](#) (Please [register](#) in MERLOT to post your feedback.)



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