



## 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](http://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:

### Biology



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Find it: [eTextbook Website](#)

Textbook Authors:

OpenStax College (numerous contributors)

Reviewed by:

Michael Plotkin

Institution:

Mt. San Jacinto College

Title/Position:

Professor

Format

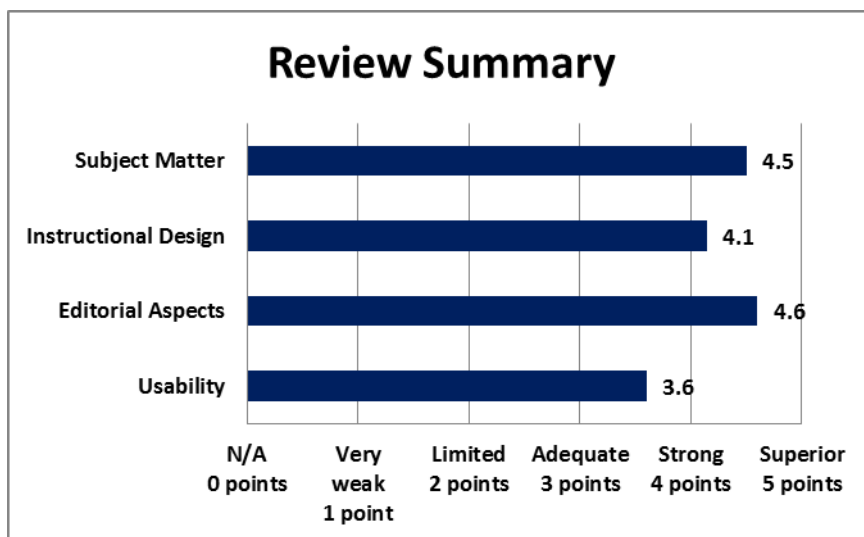
Reviewed:

[Online](#)

A small fee may be associated with various formats.

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					X	

to present its subject matter?						
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: 27 out of 30

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

- The level and breadth of coverage is excellent. The topics and content are comparable to the standard biology texts for this class (e.g. Campbell).
- The main differences are that this text does not have a separate chapter for Chemistry, Water and Carbon (it lumps these into a single chapter) and has no treatment of the Evolution of Genomes (as Campbell does).
- Unfortunately, as is the wont of many general biology texts, certain topics are covered in ways that have become tradition in biology texts but are inaccurate or outdated. These topics include:
  - Emphasizing a taxonomic rather than phylogenetic view of life (e.g. use of the term "prokaryote"; discussion of domains and Fig. 1.17)
  - Discussion of osmosis as a type of diffusion driven by the concentration of water (which is almost definitely wrong, and not useful for students to conceptualize osmosis)
  - Discussion of entropy as primarily an issue of disorder (e.g. the ubiquitous example of the messy room which is nonsensical as a room does not spontaneously tend toward messiness).
- There are a number of tools available to students including peer-to-peer platforms, study aids, guides, tutorials, and personalized course organization.
- For faculty there are PowerPoint slides, test items and strategies, and syllabus and curriculum design assistance. Some of these have a cost.

<b>Instructional Design (35 possible points)</b>	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: 29 out of 35

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

- The text is well organized and full of appropriate graphics, evolution connections. It also has a series of review questions and critical thinking prompts for each section.

<b>Editorial Aspects (25 possible points)</b>	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: 23 out of 25

Please provide comments on any editorial aspect of this textbook.

- This text is visually appealing with high quality graphics and layouts in both the PDF and the web based versions, though these differ in minor ways.
- There are QR codes that cell phones can read and display.
- Even though the text is searchable, it contains an Index and a detailed Table of Contents. There are glossaries (called Key Terms) in each chapter as well as summaries and review and critical thinking questions.
- This text is comparable editorially to the standard expensive biology texts (e.g. Campbell).

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: 18 out of 25

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

- I looked at both web based and PDF formats. The web based version is slightly harder to navigate as one must scroll up or down and then find a next button to proceed. The PDF version is laid out like a print book.

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?	Not at all (0 pts)	Strong reservations (1 pt)	Limited willingness (2 pts)	Willing (3 pts)	Strongly willing (4 pts)	Enthusiastically willing (5 pts)
					X	

Total Points: 3 out of 10

## Overall Comments

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

- This text is largely comparable to the standard major biology texts but is free. The ancillary materials for both instructors and students (though I did not explore them thoroughly) appear to be diverse and innovative.

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

- The writing style is not particularly engaging and many of the examples, analogies and figures repeat what is found in many similar texts. The book could use an update of the systematics and phylogeny material.

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.)



For questions or more information, contact the [CA Open Educational Resources Council](#).



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