

## **Faculty Review of Open eTextbooks**

The <u>California Open Educational Resources Council</u> has designed and implemented a faculty review process of the free and open etextbooks showcased within the California Open Online Library for Education (<u>www.cool4ed.org</u>). 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:

# Organic Chemistry With a Biological Emphasis Volumes I & II

Organic Chemistry With a Biological Emphasis Volume 1



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Title/Position: Professor

Format Reviewed:

### <u>Online</u>

A small fee may be associated with various formats.



Date Reviewed:

August 2015

### **California OER Council eTextbook Evaluation Rubric**

CA Course ID: CHEM 160S

Subject Matter (30 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
b the content accurate, error-free, and unbiased?					Х	
Does the text adequately cover the designated course with a sufficient degree of depth and scope?				х		

Does the textbook use sufficient and relevant examples to present its subject matter?				х	
Does the textbook use a clear, consistent terminology to present its subject matter?			х		
Does the textbook reflect current knowledge of the subject matter?				х	
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?)	х				

Total Points: 18 out of 30

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

- This text contains some minor errors, but no more than most textbooks.
- Some sections are missing, such as eliminations, organometallics, polymers, and a few other topics. This is probably because it is geared toward biology students, but it can be a problem for classes that are not exclusively for biology students.
- The text is split into to two volumes. This might not be ideal if an instructor is not following the same ordering as the text or for quarter system schools where the second quarter class might require both volumes. This is a minor issue but it could cause some confusion with students.
- The depth seems good in some sections, less so in others. Subject matter is current.

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					х	
Does the textbook reflect a consideration of different learning styles? (e.g. visual, textual?)			х			
Does the textbook present explicit learning outcomes aligned with the course and curriculum?			х			
Is a coherent organization of the textbook evident to the reader/student?						х
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?					Х	

Total Points: 23 out of 35

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

- The writing and content are at an appropriate level.
- The in-chapter exercises not thorough enough in some sections. End-of-chapter exercises in most cases are good, although students will probably ask for more. There are definitely not enough end exercises for spectroscopy.
- The content is mainly text with some visuals. The existing figures are good, but additional figures would assist visual learners.

Editorial Aspects (25 possible points)		Very Weak	Limited	Adequate	Strong	Superior
		(1pt)	(2 pts)	(3pts)	(4 pts)	(5 pts)
Is the language of the textbook free of grammatical,				v		
spelling, usage, and typographical errors?				^		
Is the textbook written in a clear, engaging style?						Х
Does the textbook adhere to effective principles of						
design? (e.g. are pages latid0out and organized to be				v		
clear and visually engaging and effective? Are colors,				^		
font, and typography consistent and unified?)						

Does the textbook include conventional editorial features? (e.g. a table of contents, glossary, citations and further references)		х		
How effective are multimedia elements of the textbook? (e.g. graphics, animations, audio)		х		

Please provide comments on any editorial aspect of this textbook.

- The writing style is very conversational and engaging with minimal errors.
- The design is clean in the pdf version but is less aesthetically pleasing in the online format hosted by ChemWiki. There are no multimedia features available other than typical images and figures.
- There is no index. The pdf version is easily searchable. The online version, however, is less searchable because results will be mixed with the other ChemWiki content. The lack of index can be a difficulty for students who choose to print out or purchase a low-cost print version of the text.

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

Total Points: 20 out of 25

Total Points: 15 out of 25

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

- The pdf version is viewable on any device. The online version hosted on ChemWiki is fine in Firefox and Chrome. However, the site is navigable on mobile devices but not readable on mobile devices. This could be a major detractor for students who are used to being able to access any online content on a mobile device.
- The figures, tables, and images lacks any numbering scheme. This makes it difficult for instructors to refer students to a specific figure.
- The pdf is easily printed. There is also an option to purchase very inexpensive print version.
- The pdf format can only be navigated in a linear fashion. Embedded links in the pdf would be helpful. Navigation in Wiki online form is easier with drop down menus and links.
- The pdf version can be annotated with various programs on computer and mobile device. The online format cannot be annotated directly although there are apps that could make this possible.

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

Total Points: 6 out of 10

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

- The text is free and available in more than one format.
- There a many quality biological examples provided.

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

- The sections that are missing (in comparison to a traditional organic chemistry course) would need to be included, even if they were added in an appendix.
- Errors would need to be fixed.
- Additional exercises and images would need to be included.

We invite you to add your feedback on the textbook or the review to <u>the textbook site in MERLOT</u> (Please <u>register</u> in MERLOT to post your feedback.)



For questions or more information, contact the <u>CA Open Educational Resources Council</u>.



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