

## Faculty Review of Open eTextbooks

The California Open Educational Resources Council 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 no/low cost and open etextboks 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:

## **Introductory Chemistry**



**Textbook Author:** David W. Ball

PDF



Introductory Chemistry by David W. Ball is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 International License, except where otherwise noted.

Find it: eTextbook Website



## California OER Council eTextbook Evaluation Rubric CA Course ID: CHEM 110 or CHEM 120S

Subject Matter (30 possible points)		Very Weak	Limited	Adequat	Strong	Superior
		(1pt)	(2 pts)	e (3pts)	(4 pts)	(5 pts)
b the content accurate, error-free, and unbiased?					Х	
Does the text adequately cover the designated course				v		
with a sufficient degree of depth and scope?				^		
Does the textbook use sufficient and relevant				v		
examples to present its subject matter?				^		
Does the textbook use a clear, consistent terminology					v	
to present its subject matter?					^	
Does the textbook reflect current knowledge of the				v		
subject matter?				^		

Subject Matter (30 possible points)	N/A	Very Weak	Limited	Adequat	Strong	Superior
	(0 pts)	(1pt)	(2 pts)	e (3pts)	(4 pts)	(5 pts)
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: 21 out of 30

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

- The textbook does a decent job of presenting chemistry concepts, but for a general chemistry course, there are no kinetics, thermodynamics, resonance structures, bonding theories or coordination chemistry discussed. This pretty much means the students would have to buy a book for second semester general chemistry to get these topics.
- The explanation of modern atomic theory, gas laws and electronic structures are also limited.

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	
appropriate reading levels for undergrad use?						
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?			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?				х		
Does the textbook contain sufficient effective ancillary materials? (e.g. test banks, individual and/or group activities or exercises, pedagogical apparatus, etc.)		х				
Is the textbook searchable?		х				
Total points: 16 out of 35 points						

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

- The end of chapter problems are very easy and of not much help.
- Not much thought into how students learn or assessment was put into the book.
- Pretty much is a textbook designed so that students can get information, but not any thoughts to how the students would actually use the textbook to learn.

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,				x		
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 clear and visually engaging and effective? Are colors, font, and typography consistent and unified?)		х				
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			

Total points: 9 out of 25 points

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

- I downloaded the book to PDF. Several instances where the heading is the last thing on a page and the text begins on the next page or a description of a table or figure is on the bottom of the page, but the picture or figure is on the next page, which I find annoying.
- Some links in the PDF that you click on goes to the author's bio page and a description of you

want to use the book register (for faculty it seems to be free, but not for students).

• Several figures seem to be missing in the text as well.

Access (30 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?					х	
Is the textbook accessible in a variety of different electronic formats? (e.gtxt, .pdf, .epub, etc.)						х
Can the textbook be printed easily? Does the user interface implicitly inform the reader how to interact with and navigate the textbook?			X		х	
How easily can the textbook be annotated by students and instructors?		х				

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

Total points: 16 out of 30 points

- I downloaded the PDF onto my computer. Took forever, but it was OK.
- Book is over 900 pages, so I doubt one would want to print it out. I tried to download onto my iPad, but could not do it.
- Pretty much need a desktop or laptop computer to use the book.
- There is an on-line version.

Overall Ratings (10 possible points)						
	Not at all	Very Weak (1 pt)	Limited (2 pts)	Adequate (3 pts)	Strong (4 pts)	Superior (5 pts)
What is your overall impression of the textbook?	(0 pts)		х			
P	Not at all (0 pts)	Strong reservations (1 pt)	Limited willingness (2 pts)	Willing (3 pts)	Strongly willing (4 pts)	Enthusiastically willing (5 pts)
How willing would you be to adopt this book?	х					

## **Overall Comments**

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

• The book does explain some chemistry topics very well. I especially liked the stoichiometry section. It would be a good place to go for a start. Simple enough to understand.

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

- The book never challenges a student. All the information and problems are very basic in nature. Several subject matter need for the full year general chemistry sequence are missing and therefore a student would have to get a supplemental book to make up for this missing material.
- Several pictures are missing in the text and it seems that students do have to pay for the book.
- Someone needs to take the book and reformat it as well.

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.)





This review is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.