

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 free 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: A First Course in Linear Algebra



License: A First Course in Linear Algebra by Robert A. Beezer is licensed under a GNU Free Documentation License (GFDL)

Find it: eTextbook Website

Textbook Authors: Robert A. Beezer



Date Reviewed:

Format

Online

December 2015

California OER Council eTextbook Evaluation Rubric

CA Course ID: MATH 250

Subject Matter (20 passible points)		Very Weak	Limited	Adequate	Strong	Superior
Subject Matter (Supossible points)	(0 pts)	(1pt)	(2 pts)	(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 examples					v	
to present its subject matter?					^	
Does the textbook use a clear, consistent terminology to				v		
present its subject matter?				^		

Does the textbook reflect current knowledge of the			v
subject matter?			^
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			Х
examples that are inclusive of a variety of races,			
ethnicities, and backgrounds?)			

Total Points: 27 out of 30

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

- I loved the emphasis on understanding. The textbook was well organized to lead students through the main topics in an introduction to linear algebra and provided theoretical motivation for the progression of topics.
- This would be a perfect textbook for someone teaching linear algebra from a conceptual perspective. If you are looking for a book for a matrix oriented (i.e. primarily calculations and applications) course, it would not be appropriate.
- This book has solutions and flashcards.

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?)			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.)						х
Is the textbook searchable?						Х

Total Points: 27 out of 35

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

- There are not sufficient problems for students to practice calculations. The theoretical problems are excellent. If I was teaching a class where the computations were done by hand, I would be pulling practice problems from a more traditional linear algebra book to supplement.
- Although, I don't think there is one best way to start a linear algebra course, I usually begin with vectors and linear transformations. This book starts with solving systems of equations via matrices and row operations. Since the book references information in past chapters heavily, the order of the topics may be important to some instructors.

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,						х
spelling, usage, and typographical errors?					v	
Does the textbook whiten in a clear, engaging style:					Λ	
design? (e.g. are pages latid)out and organized to be						
clear and visually engaging and effective? Are colors,			Х			
font, and typography consistent and unified?)						
Does the textbook include conventional editorial						
features? (e.g. a table of contents, glossary, citations and					Х	
further references)						
How effective are multimedia elements of the textbook?				x		
(e.g. graphics, animations, audio)				~		

Please provide comments on any editorial aspect of this textbook:

- I felt that the acronyms and abbreviations for all the sections, theorems, and examples were overused. Perhaps if I was reading more slowly over the course of a semester, as a student would, the abbreviations would have stuck, but I found that I constantly had to use the hyperlinks to go back and look up what they meant. If I was a student who printed the pdf file, this would drive me nuts as there are no chapter numbers. On a positive note, I felt that the general use of the acronyms and abbreviations was a good one! The standard numbering convention is to use "Definition 1.1", etc. Which has zero meaning! The beauty of the hyperlinks is that we could use a different numbering convention that is meaningful because we can just click to link back to the referenced definition, theorem, etc.
- There is not a traditional index. I think it is easy to search if you are using the web or pdf versions, but if a student was to print it, it would be difficult to find specific material in the text.
- I think students would find the language, layout, and notation of the textbook sophisticated. Especially if the student is using it on a device where she couldn't make notes to remind herself of the notation in the margin.

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

Total Points: 21 out of 25

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

- Using the web version, I could not find a way to attach notes, bookmark pages or highlight. I could use the standard tools provided by Adobe Acrobat when using the pdf, but many students only have Acrobat Reader. When I printed a few sample pages, there was not a lot of room in the margin to take notes.
- The book is Sage-enabled for instructors using Sage. Sage is freely available software to use for matrix calculations.

Overall Ratings						
	Not at	Very Weak	Limited	Adequate	Strong	Superior
	pts)	(1 pt)	(2 pt3)	(5 pt3)	(4 pt3)	(5 pt3)
What is your overall impression of the textbook?					х	
	Not at	Strong	Limited			Enthusiastically
	all (0	reservations	willingness	Willing	Strongly	willing
	pts)	(1 pt)	(2 pts)	(3 pts)	willing (4 pts)	(5 pts)
How willing would you be to adopt this book?				х		

Total Points: 7 out of 10

Overall Comments

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

• This would be a perfect textbook for someone teaching linear algebra from a conceptual perspective. In addition, if you use technology for computations in your course, this text has a strong technology component.

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

• The layout of the pdf version is difficult to follow. I would love for it to look more like the web version.

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



For questions or more information, contact the CA Open Educational Resources Council.



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