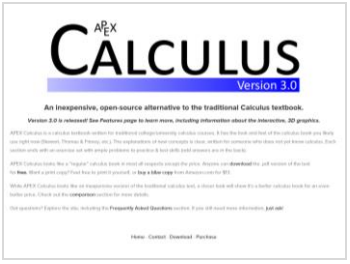
Faculty Review of Open eTextbooks

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:

Apex Calculus 3.0



Find it: eTextbook Website

Textbook Authors:
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Reviewed by:
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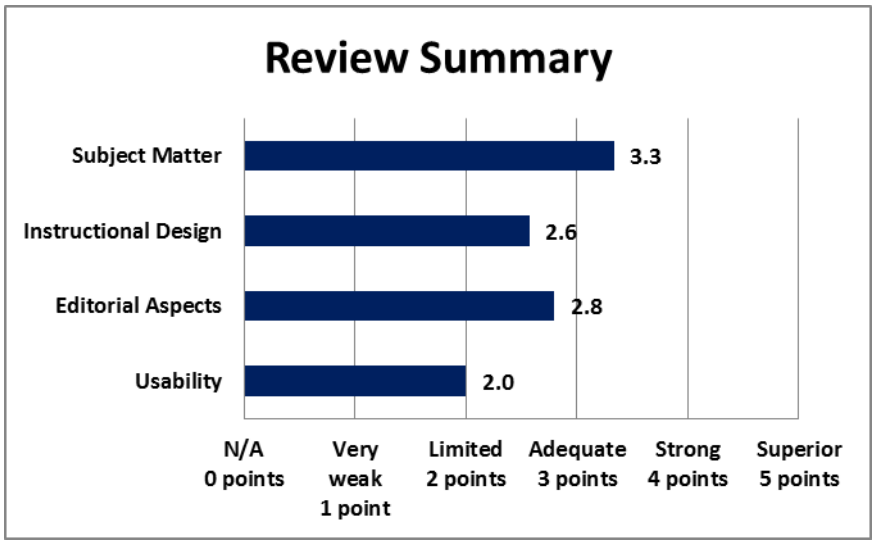
Title/Position:
Professor

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: MATH 220

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				X		

offensive and insensitive examples? Does it include examples that are inclusive of a variety of races, ethnicities, and backgrounds?)						

Total Points: 20 out of 30

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

- There is very little proving of theorems, many ideas stated without a complete explanation, good examples and good intuitive explanations, would like to see more examples in such areas as trigonometric substitution, tests for convergence and divergence and parametric curves.
- For the most part I did not see many errors. One that stood out was example 157 on page 271, the integrand endpoints changed from 0 to 2 to 1 to 2 on the next page, some of the text was not as clear as I would like to see in terms of use of fractions.
- The images are clear and very helpful in understanding the examples. These images were used to support intuitive explanations and to illustrate counter examples.

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:

- I found the discussion on the substitution approach to integration a bit confusing with bringing in trigonometric substitution at the same time; I most often see trigonometric substitution done in a separate section.
- The text does contain some interactive graphics which would be helpful in multivariable calculus.

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 latid0out 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: 14 out of 25

Please provide comments on any editorial aspect of this textbook:

- I found the writing to be clear and easily understandable. I think that some of the ideas presented appeared more or less as if they were to be memorized instead of explained.

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: 10 out of 25

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

- In the printed version there are margins at the bottom of the page for writing notes, these notes however cannot be written online only on the printed page.

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		
	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?				X		

Total Points: 6 out of 10

Overall Comments

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

- I liked very much the intuition and the examples along with counter examples, the mention of some history and making connections between different ideas. For example not all textbooks make the point that the Trapezoid Rule is the average of Left and Right Sum Rule.
- I liked that in several examples the author(s) gave different approaches, when looking at size of error in approximation techniques they gave a couple of examples.
- In the section on applications of integration I particularly liked the discussion on cross sectional area and volume prior to disk, washer and shell methods for rotation.

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

- I would have liked to see a few more examples in the sequence and series convergence and divergence, the ones in the text are good but from my experience students need to see more, instead of stating many of the results without much discussion. I had the same issue with the sections on Integration techniques the example given were good but some of the results were given in such a way that it seemed the idea was to memorize. I would have liked to see more proofs of some of the theorems as well.

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