



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 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:

How to Think Like a Computer Scientist: Learning with Python 3



License:

How to Think Like a Computer Scientist: Learning with Python 3 by Peter Wentworth, Jeffrey Elkner, Allen B. Downey, and Chris Meyers is Copyright, licensed under a [GNU Free Documentation License](#).

Find it: [eTextbook Website](#)

Textbook Authors:

Peter Wentworth, Jeffrey Elkner, Allen B. Downey, and Chris Meyer

Reviewed by:

Fay Zhong

Institution:

Cal State University, East Bay

Title/Position:

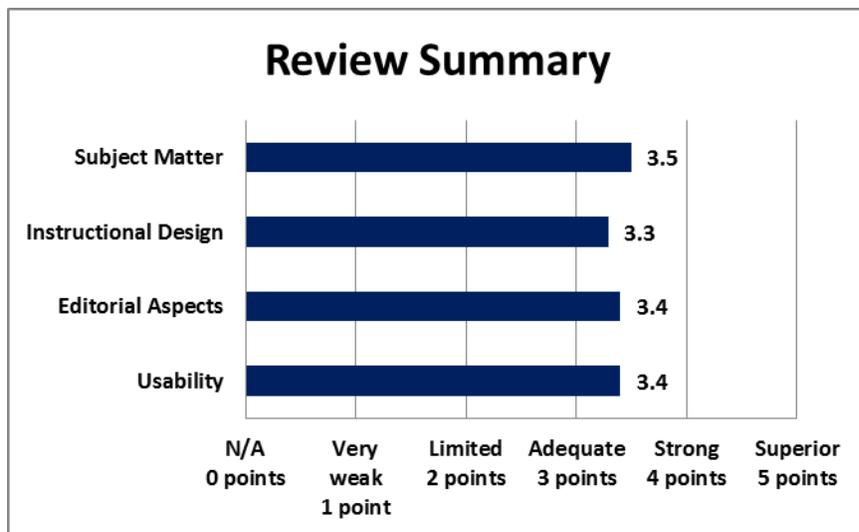
Professor

Format

Reviewed:

[Online](#)

A small fee may be associated with various formats.



Date Reviewed:

March 2015

California OER Council eTextbook Evaluation Rubric

CA Course ID: [COMP 122](#)

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 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:

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: 23 out of 35

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

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 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: 17 out of 25

Please provide comments on any editorial aspect of this textbook.

Usability (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?					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: 17 out of 30

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

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: 4 out of 10

Overall Comments

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

- This is a well-written book for COMP 122 Programming Concepts and Methodology I, with the following advantages:
 - 1) It uses Python, which is a high-level language that is easy to learn.
 - 2) It goes with plenty of sample code. Students can understand much better with working code.
 - 3) It illustrates concepts via interesting projects such as drawing a spiral (Ch 4. Functions), drawing fractals (Ch 18. Recursion), and developing games (Ch 17. PyGame).
 - 4) It introduces useful computer science concepts such as test-driven development, object-oriented programming, and recursion.
 - 5) It covers some data structures (Linked List, Priority Queue, Stack, Tree, etc.) so students will have some idea once they start learning Data Structures and Algorithms.
 - 6) It has lots of pictures/figures so students can grasp the idea or concept with deeper, more concrete impressions.
 - 7) It is fun to read. The sentences are written in a smooth way and thus very joyful to read from cover to cover.

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

- There are some minor typos in the book. For example, in 2.1 Values and data types, "What do you think would happen ..." should be "What do 'you' think would happen ..."
- Some chapters can be introduced later. For example, Chapter 10 Event handling, listening for events and event handlers seem to be less relevant and maybe too complicated for students in a lower-level programming course.
- More details or pictures could be included to explain some concepts. For example, in 13.9 "What about fetching something from the web", a screen capture of the web page and content of a local file can be added here. In addition, the URL (<http://xml.resource.org/public/rfc/txt/rfc793.txt>) does not work.
- More multimedia elements, e.g. animations, audio, video lectures are desired in the textbook.

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](#).



This [review](#) is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#).