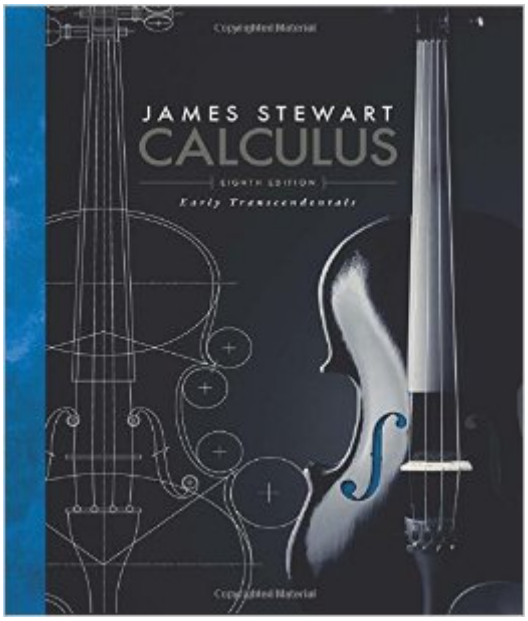
# Calculus: Early Transcendentals



## Synopsis

Success in your calculus course starts here! James Stewart’s CALCULUS: EARLY TRANSCENDENTALS texts are world-wide best-sellers for a reason: they are clear, accurate, and filled with relevant, real-world examples. With CALCULUS: EARLY TRANSCENDENTALS, Eighth Edition, Stewart conveys not only the utility of calculus to help you develop technical competence, but also gives you an appreciation for the intrinsic beauty of the subject. His patient examples and built-in learning aids will help you build your mathematical confidence and achieve your goals in the course.

## Book Information

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## Customer Reviews

Get Ahead with StewartÃ¢Â Â™s Calculus: Early Transcendentals. View larger View larger View larger View larger Test your preexisting knowledge. Pinpoint where you may need to brush up on skill techniques to successfully begin the course. A series of four diagnostic tests begins the text, covering algebra, analytic geometry, functions, and trigonometry. Answers are included, and if you need to improve, you will be referred to points in the text or on the book's website where you can seek help. Enhance your understanding and build confidence. Stewart includes helpful 'Strategies' sections to lead you to the right technique that you will need to solve problems in situations where the choice may not be obvious. Practice makes perfect! Stewart's text has an extensive collection of more than 8,000 quality exercises that will help you fine-tune your problem-solving skills and improve your

understanding. The wide variety of types of exercises includes many technology-oriented, thought-provoking, real, and engaging problems. Concepts with examples and step-by-step explanations. Several new application-based problems in the book have been added to help you strengthen the understanding of concepts and make the leap towards discovering the impact of Calculus in its various applications. Review what you knowÃ¢Â Â”and don't knowÃ¢Â Â”to ensure success on your next exam. Comprehensive review sections follow each chapter with a 'Concept Check' and 'True/False Quiz' that allow you to prepare for upcoming tests.

Enhanced WebAssign Allows You to Learn at Your Own Pace. ItÃ¢Â Â™s not about homework. ..itÃ¢Â Â™s about learning. Forget everything you thought about completing math or science assignments. Enhanced WebAssign is not about memorizing formulas. ItÃ¢Â Â™s about achieving success and gaining a deep understanding of math and science. You get coached. Enhanced WebAssign breaks down math and science problems into small, achievable steps. Using built-in tools, you get the help you need Ã¢Â Â“ even when you are stuck. Because your instructor tailors Enhanced WebAssign to the course goals, every reading, video, exercise and quiz is there to prepare you for finals. No more exam 'surprises'! You get instant feedback. A system of 'bonus' and 'penalty' points identifies the areas you need to work on. And youÃ¢Â Â™re never marked down for entering a differently formatted correct answer. EWA has everything you need. Learning at your own pace, instant grades online, tutorials, videos and practice problems. Enhanced WebAssign helps you learn math and science, not just do homework.

This is the Hollywood blockbuster of calculus textbooks: sheer scale of production ensures that it is as well-produced as they come, but it has no soul. It panders to every audience, including some that should not be pandered to. Its goal is to embody the status quo, in the interest of mass-market appeal, not to improve upon it.If you are going to go with a mainstream calculus textbook you might as well make it Stewart; the others are no better and usually worse. Longstanding and widespread adoption means that at least Stewart’s Calculus does not have any particular idiosyncrasies or weak spots. It is simply the definition of mainstream calculus, with all kinks ironed out.To rebels and independent thinkers, however, I would point out the following holistic drawbacks of this book.The book is obviously massively bloated because it tries to be everything to everybody. One could teach from this book a course that stresses rigour and proofs, or one that stresses computation, or one

that stresses modelling and applications, and so on. This "neutrality" is probably one of the main reasons why this book has won the adaption war. It is very useful for instructors who cannot agree among themselves to adopt a book that is basically spineless and versatile enough for each instructor to find sufficient material catering to his particular prejudices.But consider the consequences of this for the students. Students soon realise that the text of any given section is filled with a bunch of bloat you don't really need. Usually no more than maybe a third of it is directly relevant in any given course. More often than not, students quickly decide that they pretty much only need to look at the examples and the boxed "formulas".Their decision is not irrational but it is disastrous. It fosters an unthinking, mechanical approach to calculus, with a "gaming the test" sort of attitude. This is of course the opposite of meaningful learning and understanding.This is particularly detrimental with respect to proofs, in my opinion. The formal proofs of Stewart's text are often, realistically speaking, way above the heads of virtually all students. Instructors know this full well, and therefore routinely skip all such material and focus classes on the computational and procedural parts of the text only.Again, very convenient for the instructor that the text has all the details, so he can just defer to it. But again, disastrous in terms of the implicit message to students. For the obvious conclusion students will draw from this state of affairs is that that whole business of "proofs" and so on is something we should all forget about---a terrible attitude to foster in your students.In fact, it is even worse than this. For, knowing that no one is going to read his proofs, Stewart often tries to give some informal indication of why a result is true before going into a full formal proof. But this is always accompanied by a remark to the effect that "of course this is not really a proof!"This may seem reasonable enough, but consider the message it sends the students. The idea that the whole business of proofs is some kind of formal charade that you should just ignore is now even more strongly reinforced, by further disassociating it from any kind of intuitive, common-sense understanding.What Stewart mean to say with these passages is: "The formal proof may be complicated, but you can understand the basic idea like this." But in reality the students are more likely to hear: "Forget about thinking about why-questions and trying to understand things in a way that makes sense to you, because such informal understanding doesn't count anyway; it's not 'real' mathematics. Proving that something is true means messing around with complicated formulas and symbols; it doesn't have anything to do with curiosity, trying to figure stuff out, or 'aha' moments."Again this is a disastrous attitude to instil in students. The students cannot be blamed; they are reacting reasonably given the circumstances. Blame must fall on Stewart and his ilk for creating these circumstances.Another aspect of Stewart's style also contributes to the disastrous attitude that proofs are nothing but a kind of bureaucratic ritual. This is his emphasis on calculation-

and algebra-based proofs. For example his derivation of the derivative of sin(x) involves the application of the angle-addition identity for the sine, and his derivation of the geometric meaning of the scalar product is based on the law of cosines. These trigonometric formulas are "black box"-type results that are very useful for the blind manipulation of symbols, but they are intuitively opaque; one cannot really "see" why they are true. So when these results are used the reader is left thinking "well, I guess it's true because the algebra works out that way," without having any real sense of why it is true in a subjectively satisfying way.It is possible to derive these results in much more intuitive and enlightening ways, but doing so would require instructor and students alike to make use of more imaginative and less deterministic reasoning. The emphasis in such a proof would be more subjective; it would appeal to a feeling of insight. The approach based on trigonometric formulas on the other hand is immaculately objective; it is purely a matter of shuffling symbols around, and as such it cannot be faulted by neither man nor machine. It would be the perfect way to teach if students were Spock-style humanoid automata. But to students who crave intuitive insight and "aha" moments it is a disaster.Another example of this type is the theorem expressing the area of a figure in terms of a line integral along its perimeter. Stewart derives this result as a special case of Green's theorem, which makes it seem like a mysterious and unexpected side-effect of a cryptic and abstract theory. In reality the result is much more satisfactorily arrived at through direct intuition, but, as ever, you will not find those kinds of intuitive insights in Stewart, since he always prefers to do everything by formulas.It is not hard to understand the reason for Stewart's dependence on formula-based proofs. Intuitive, insight-oriented proofs ask much more of students and instructors. It demands that they engage in genuine mathematical thought, and that they are willing to think in an open-ended way and rely to a greater extent on their own judgement. A formula-based approach, on the other hand, asks only that students and instructors can follow instructions like obedient robots. In short, the traditional approach is more suitable to be taught by mediocre teachers to mediocre students. This, more than anything, is arguably the main reason for it being the status quo.This attitude is found not only in the proofs but in the presentation generally. Stewart is basically a dog trainer. Sit! Roll over! Good boy! That is the spirit in which this calculus book treats you. You are taught to do tricks, rather than being led on an intellectual journey of exploration and discovery.This can be seen in the many topics that are taught without any credible motivation provided for the reader. For one thing, the book is packed with supposedly "applied" or "real-world" problems designed to capture the reader's interest, which are easily seen to be intellectually bankrupt upon the slightest critical examination. Like a politician telling blatant lies and counting on people being too stupid to see through them, so also Stewart tries to fool you with cheap smokescreens into

thinking that his problems have real-world relevance. Most ridiculously, of course, this is seen in the gratuitous full-colour stock photos that are peppered in various places. For instance, pre-med students constitute a significant portion of calculus students, so let's appease them with some problems about blood pressure and drug concentrations and so on, with some pointless stock photos of blood vessels and whatnot taking up a good chunk of the page, as if the book was not bloated and expensive enough without them. These problems, like so many other "real world" ones, consist of nothing but plugging numbers into formulas. The generic template for such problems is: "The function so-and-so represents something-or-other. What's the something-or-other when the value of the variable is 53?" The disastrous message to students is clear: applying mathematics means plugging numbers into formulas. It clearly does not involve thinking about why the formula is that way in the first place. It also clearly does not involve any kind of qualitative reasoning or any kind of conceptual conclusions. Applying mathematics simply means: when I plug this number in, that number comes out.To take an extended example, in the chapter on "Applications of Integration" there is an entire section on "Work." This of course means "work" in its technical physical sense of force times distance, or the integral of F ds. Dozens of exercises are stacked up where we are asked to compute the "work" involved is such-and-such a physical scenario. We are expected to dutifully plug numbers into formulas and get other numbers out like obedient robots, but why? What is the point of all these numbers? Why would anyone want to calculate the "work" so defined, and what does it really tell us? No justification is given. This is simply "the definition" of work, and one cannot "prove a definition," so the reasoning seems to go. So the mere fact that some quantity is defined is taken as sufficient motivation for computing it in a bunch of instances. Presumably, the student is left to infer, this technical sense of the word "work" is supposed to have some sort of relation to the everyday sense of the word, which also seems vaguely applicable in the examples, as they usually involve mechanically moving stuff around. However, why it should be "force times distance" instead of, say, "force times time" or "force squared times distance" or whatever is not made clear. Also, the unit of "work" comes out as Joules, it is noted, which elsewhere in the book is taken as a unit of energy. So apparently "work" is related to (or is?) energy? But this mysterious connection is not explained. As you can see, the student will be left with more questions than answers as soon as she tries to go even a little beneath the surface. The message is clear: this is no place for thinking; this book is about plugging numbers into formulas like a circus monkey doing tricks for a banana.Stewart's willingness to teach computational tricks without meaningful motivation is reinforced again and again in the organisation of the text. For example, he goes through a detailed treatment of intricate technicalities, such as all possible cases of partial fraction

decomposition, before getting to for instance differential equations. This is not so bad for students who will go on to see the latter material anyway, but it is very bad if these technicalities become an obstacle for students from other majors who need some mathematical modelling and conceptual understanding, not technical machismo. The chapter on differential equations in fact contains the first credible motivation for why partial fraction decompositions are of any interest in the first place. But instead of using them to motivate the study of partial fractions, as one would if one had some intellectual respect for the students, Stewart chooses instead to teach you to sit and roll over first, as one would a dog who can understand nothing except following orders.In conclusion, this is a drill-curriculum-style calculus book best suited for obedient students eager to please the teacher, rather than students demanding a complete understanding for their own satisfaction. It often pretends otherwise, but its fake motivations and its fake applications do more harm than good to any but the most gullible students.

Just a heads up that this does not include the code required for online portion of the book.Apparently to get a code you need to buy the loose leaf version as this version is sold without one

This does not include the access code for the online portion. The access code is required for my sons class. I have had to purchase a second text to get the access code. I have been unable to get a refund from  for the rental of this book. $93 wasted.

I rented the textbook for the semester and it came in great condition! I think it was well priced and and felt pretty new/good condition. Very useful to me since I like hard copies rather than ebooks and I was glad I didn’t have to buy it since the rent price was good.

This is not a very good book for someone who is just jumping into calculus. It gives like two examples for every new concept at best. I think the authors wanted to show off at how much they know because it is really hard to understand calculus, and the lack of examples makes it abstruse to fathom. The examples can only help you with about 10 out of the 50-60 assigned problems. Its bad I had to rely on online help to pass my calculus homework.

In terms of errors, it is not error free. In terms of ease of use, it was great. Each section starts out with an explanation, then gives 5 or 6 examples of problems, and then finishes with upwards of 50

problems to do. The end of the book contains lists of integrals, rules, and helpful information. The solution manual that goes along with this book was EXTREMELY helpful, since this book only contains odd answers for the section exercises, whereas the solution manual shows the work for both odd and even problems. If your calculus course requires this book, rent the solution manual too. You will be glad you did. I rented this textbook from  Textbook for 3 months for like $40, while my friends were paying over $200 for it.

This is a very well written and clear text on advanced calculus. I really like how the pages are well laid out without all the clutter that so many textbooks include that I'm sure few students ever read. Topics are well explained, key points clearly identified and highlighted, and illustrated with examples and well thought out figures. Lots of good problems with solutions to odd-numbered.I bought this book so I could help my daughter with her college Adv. Calculus class. I can review the material, do the problems and then we discuss over Skype. I use an external camera with Skype to illustrate concepts and help her understand the key ideas.

Example problems are nothing like homework problems. Constantly skipping steps with nothing written to tell you what steps they did or formulas used. Seems like to understand the concepts you have to go find someone else to explain the concepts and give practice problems. The only good thing about this book is the reference pages are very useful.

(CLEP Test Preparation) Cracking the AP Calculus AB Exam, 2016 Edition (College Test Preparation) CLEPÂ® Calculus (CLEP Test Preparation) Student Solutions Manual (Chapters 1-8) for Stewart's Single Variable Calculus: Concepts and Contexts, 4th