

## How to Use Anton's 8<sup>th</sup> ???

**TEXT:** *Calculus, Early Transcendentals*, Eighth Edition.  
**AUTHORS:** Howard Anton, Irl Bivens, and Stephen Davis  
**Publisher:** Wiley [ John Wiley & Sons, Inc. ]

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### **Chapter 1:** *Functions:*

Cover all of Chapter 1 except Sections 1.2 and 1.7. It is probably wisest not to cover all of these sections prior to beginning Chapter 2. In fact, you should deal only with Sections 1.1, 1.3, and 1.4 very briefly in the first day or so to establish notation and to serve as a very brief review. The remaining sections that are to be covered should be dealt with later, either as detailed below or at a point of your own choosing so as to *briefly remind* students of prerequisite material and to establish notation and function definitions. Some of the inverse trigonometric functions have definitions that vary from text to text. Use the ones given within the current text. [ Depending on the strength of the class and class time lost to university closures or short spring or summer terms, you may wish merely to point out that the materials from Sections 1.5 and 1.6 are pre-requisite and that students needing to should deal with these on their own. Keep in mind, though, certain derivative formulae depend on this material. ][6 sections. Perhaps 3 lectures worth total. ]

### **Chapter 2:** *Limits and Continuity:*

Cover all sections of Chapter 2. In Section 2.3, immediately prior to treating the subsection, *End Behavior of Trigonometric, Exponential, and Logarithmic Functions*, briefly cover Section 1.6, *Exponential and Logarithmic Functions*, as review. In Section 2.4, you would probably be wise to restrict your attention to the  $\epsilon - \delta$  definition of the two-sided limit at a point. Although all the other limit definitions are variations on this theme, there is probably too much material here for first-timers. You might want to point this out, but don't get bogged down here. In Section 2.6, before you deal with the subsection, *Continuity of Inverse Functions*, you may wish to quickly go back to Section 1.5, *Inverse Functions; Inverse Trigonometric Functions*.

[6 sections. Probably 6 lectures, which may include material from 1.5 and 1.6. ]

### **Chapter 3:** *The Derivative:*

Cover all sections. Sections 3.3 and Section 3.4 should be handled in the same lecture, for they are very short and treat the basic rules of differentiation for linear combinations, products, and quotients. Sections 3.5 and 3.6 should also be done in one lecture. [8 sections. Probably 5 lectures.]

**Chapter 4:** *Exponential, Logarithmic, and Inverse Trigonometric Functions:*

Deal with all sections. Sections 4.2, *Derivatives of Logarithmic Functions*, and 4.3, *Derivatives of Exponential and Inverse Trigonometric Functions*, could be handled in one lecture. [4 sections. Probably 3 lectures.]

**Chapter 5:** *The Derivative in Graphing and Applications:*

Cover all sections except Section 5.6, *Newton's Method*, and Section 5.8, *Rectilinear Motion*. If you are in a short summer term or in the fall after having had your days lost to hurricane closure(s), you will want to omit Section 5.3. [6 or 5 sections. Probably 5 to 6 lectures. ]

**Chapter 6:** *Integration:*

Cover only Section 6.2 and Section 6.3. Do not do or assign Section 6.1. [There are 2 sections. Probably 1 lecture. ]

**Chapter 11:** *Analytic Geometry in Calculus:*

Cover only the portion of Section 11.2 that deals with Parametric Curves after lecturing on the material in Section 1.8, *Parametric Equations*. Omit the material dealing with integration. [Essentially 1 section. Probably 1 lecture.]

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**Notes:** (1) Read **Calculus II, Calculus I, Precalculus, Trigonometry, and Algebra Instructors: Policies for these courses**. Pay attention to the issue of pacing.

(2) You should give the equivalent of at least three 1.67 hour exams and a comprehensive two hour final exam. To cover the syllabus, it is essential that you lecture on more than one section in a class period whenever it is reasonable and possible to do so. The suggested pacing provides for twenty-two lectures in Chapters 2 and beyond. Chapter 1 is problematical. To cover 11.2 you must cover 1.8 and can probably make it all of one piece. My recollection is that the material from 1.1, 1.3, and 1.4 was part of Chapter 2 of the 4th edition. [??] It probably should be done on the first day. Assuming that pieces of 1.5 and 1.6 are omitted or squeezed into Chapter 2 lectures, this leaves perhaps four classes for exams or tests and review in a 29 class semester. If you are dealing with a term having 26 or 27 classes, plan on omitting 1.8, 11.2 and possibly 5.3. [ Section 5.3 deals with the graphing of more complicated rational and algebraic functions. ] *Keep in mind that we frequently lose class days during hurricane season.*

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