| TEXT:      | Calculus | s, Ear. | ly Tr | ranscende | entals, | Ninth | Edition. |
|------------|----------|---------|-------|-----------|---------|-------|----------|
| AUTHORS:   | Howard A | Anton,  | Irl   | Bivens,   | and St  | ephen | Davis    |
| Publisher: | Wiley    | [ .     | John  | Wiley &   | Sons,   | Inc.  | ]        |

## Chapter 0: Before Calculus

Cover all of Chapter 0, at least briefly. It is probably wisest not to cover all of these sections prior to beginning Chapter 1. In fact, you should deal only with Sections 0.1, 0.2, and 0.3 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 more importantly, function definitions. Some of the inverse trigonometric functions have definitions that may 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 0.4 and 0.5 are prerequisite and that students needing to should deal with these on their own. Keep in mind, though, certain limits and derivative formulae depend on this material. [5 sections. Perhaps 3 lectures. ]

## **Chapter 1:** Limits and Continuity

Cover all sections of Chapter 1. In Section 1.3, immediately prior to treating the subsection, End Behavior of Trigonometric, Exponential, and Logarithmic Functions, you may wish briefly to cover Section 0.5, Exponential and Logarithmic Functions, as review. In Section 1.4, you would probably be wise to restrict your attention to the  $\epsilon$  -  $\delta$  definition of the twosided 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 to really digest. You might want to point this out, but don't get bogged down here. In Section 1.6, before you deal with the subsection, Continuity of Inverse Functions, you may wish to quickly go back to Section 0.4, Inverse Functions; Inverse Trigonometric Functions. You may also find it necessary to talk about the Section 0.4 material for limits at infinity of certain of the inverse trig functions, of course, in Section 1.3.

[6 sections. Probably 6 lectures, which may include material from 0.4 and 0.5. ]

## Chapter 2: The Derivative

Cover all sections. Sections 2.3 and Section 2.4 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 2.5 and 2.6 should also be done in one lecture. [6 sections. Probably 3 lectures.] **Chapter 3:** Topics In Differentiation

Cover all sections. Sections 3.2 and 3.3 may be handled in one lecture. Section 3.6, which deals with L'Hopital's Rule should probably be treated alone. [6 sections. Probably 5 lectures.]

**Chapter 4:** The Derivative in Graphing and Applications

Cover all sections except Section 4.7, Newton's Method, and Section 4.6, 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 4.3. [6 or 5 sections. Probably 5 lectures.]

**Chapter 5:** Integration

Cover only Section 5.2 and Section 5.3. Do not do or assign Section 5.1. [There are 2 sections. Probably 1 lecture.]

**Chapter 10:** Parametric and Polar Curves; Conic Sections

Cover only the portion of Section 10.1 that deals with Parametric Curves, Omit the material dealing with integration. [Essentially 1 section. Probably 1 lecture.]

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 24 days of 100 minute lectures. This leaves 3 or so classes for tests in a 29 class semester with a day or two for review. If you are dealing with a term having 26 or 27 classes, plan on omitting 10.1 and possibly 4.3. [Section 4.3 deals with the graphing of more complicated rational and algebraic functions.] Keep in mind that we frequently lose class days during hurricane season.

(3) If you are teaching 3 days a week, where two of the days are 50 minute periods and the third is a 100 minute class, you would be advised to break out a calendar and plan your semester carefully. For late Friday classes, Friday quizzes might be beneficial to encourage attendance..

Course Coordinator: D. Ritter // REVISED: May 24, 2009 //DLR:dlr