SYLLABUS for MAC2311, CALCULUS I

TEXT: Calculus, Early Transcendentals, Sixth Edition.
AUTHORS: C. Henry Edwards & David E. Penney
Publisher: Prentice Hall

Chapter 1: Functions, Graphs, and Models: The first four sections of this chapter serve to establish notation and as a very brief review. Move quickly through them if you treat them at all. The last section is a read only preview of the "forest". [There are 5 sections. At most 2 lectures.]

Chapter 2: Prelude to Calculus: Cover all four sections. After using "slope-predictor" to motivate the limit concept in Section 2.1, a fairly standard development of limits and continuity is done in this chapter. Note that the brief Section 2.3, has a considerable amount of material. Within you will find the squeezing theorem, the hard trig limits, one-sided limits, and the usual epsilon-delta definition. You may wish to deal with this section over two days. Observe that the E&P definition of removable discontinuity in Section 2.4 differs from that of Anton. [There are 4 sections. Probably 4 lectures.]

Chapter 3: The Derivative: Do the first nine sections. You may observe that the inverse trig functions aren't here but are handled much later! Also, the higher order derivatives are not introduced until they are needed, in Chapter 4. There is a considerable amount of material here, far more than the basic rules of differentiation. [There are 9 sections. Probably 6 to 7 lectures.]

Chapter 4: Additional Applications of the Derivative: Deal with all sections. Observe that E&P deals with concavity somewhat late in the chapter and the definition differs from Anton's! Try to do 4.8 and 4.9 in one lecture. [There are 9 sections. The first is read only. Probably 7 lectures.]

Chapter 5: The Integral: Cover only Sections 5.1, 5.2, and 5.7. In Section 5.7, omit the reading and problems involving definite integrals. [There are 3 sections. The first is read only. At most 2 lectures.]

Chapter 6: Applications of the Integral: Cover only Section 6.8, Inverse Trigonometric Functions. Omit the material and exercises involving the definite integral. [There is 1 section. Probably 1 lecture.]

Chapter 9: Polar Coordinates and Parametric Curves: Cover Section 9.4, Parametric Curves. [There is 1 section. Probably 1 lecture.]

Notes: (1) Read Calculus II, Calculus I, Precalculus, Trigonometry, and Algebra Instructors: Policies for these courses.
(2) You should give the student 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-four lectures and leaves five classes for exams or tests and review in a 29 class semester. If you are dealing with a term having 27 or 26 classes, plan on omitting 9.4, and possibly 4.7, and almost all of Chapter 7. (Keep in mind that we frequently lose class days during hurricane season.)

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