

MATH 20A, WINTER 2001

Instructors: Professor W. Helton, AP&M 6161. T.A.s Lu Yu APM 6402 R. Marcia APM 5748

Subject material: We shall cover parts of Chapters 1, 2, 3, 4 and the beginning of Chapter 5 of Calculus - Early Transcendentals by Stewart (Fourth Edition). The course may be described briefly as differential calculus plus a smidgeon of integral calculus, with emphasis on the understanding of graphical, algebraic and numerical methods in roughly equal proportions. Examples and exercises from real world applications will be used to illustrate the concepts. If you find the going too tough, you may, after consulting with an advisor, transfer to Math 10A, where they cover much of the same material at a slower rate, and generally with less difficult homework. You should make such a switch as soon as possible to avoid grade penalties.

Reading: IT IS VERY IMPORTANT THAT YOU READ THE ASSIGNED MATERIAL IN ADVANCE OF THE LECTURE. This will be expected and it will enable you to maximize what you get out of lectures.

Grading: There will be 3 weekly quizzes worth 24% of the course grade. Each quiz will contain one or more questions which are close to some homework exercise you have been assigned, and it will contain a more novel question. There will be a midterm exam worth 26% of the total course grade. The final exam will cover all sections and will be worth 50% of the course grade. If you fail the final you will fail the course.

The plan now is not to collect homework, since the quizzes address it directly. Possibly this will change or we might add an extra quiz, if class performance is less than glorious.

Calculus lab: A lab where Math 20A students can get help is in APM 2402. Usually it gets going around the second week of class and is open from about 8am to 8pm each week day. There will usually be at least tutors/TAs available to help with homework, calculators, and course work.

Calculators: It is important that you bring your graphing calculator (preferably a TI-86) to each lecture and recitation. The calculator will be used as an aid in learning concepts, not just a means of computation. Brief instructions for all the TI graphing calculators are available from Soft Reserves in the old Student Center. The TI-90 series of calculators is forbidden, because these calculators do too much.

The Class Homepage:

<http://www.math.ucsd.edu/courses/math20a/>

Homework Week 1

Sec. 1.1 p. 22- 24

3, 10, 11, 20, 21, 41, 42, 52, 54

Sec. 1.2 p. 35-38

1, 2, 9, 10, 11, 13, 14, 15, 18, 19, 20, Beware 15, 18, 19, 20 require specialized skills with your calculator which may take a while to acquire. You might as well get started now, but don't expect immediate success.

Sec. 1.3 p. 46-49

1, 3, 5, 6, 7, 27, 33, 35, 36, 37, 38, 39, 54(a) (b) (c), 55(a) (b), 58, 59, 60, 62, 65, 66

Sec. 1.4 p. 55-56

1, 5, 6, 15, 18, 28, 29, 33, 39, 41