

autumn 2016 calculus I MAC2311 U28 Zweibel DM428 zweibel@fiu.edu 3053483479

office hours: MWF 2-2:45, WF 4:05-4:45, or by appointment

prerequisite:  $\geq C$  in MAC 1147, or  $\geq C$  in both MAC 1114 and MAC 1140, or, if none of MAT 1033, MAC 1105-1114-1140-1147 or their equivalents have been attempted in college,  $\geq 75\%$  on an ALEKS placement exam taken no more than 18 months prior to 8/22/2016.

performance measures: grades on exams and quizzes

exams and quizzes: 3 100 point exams, on 9/19, 10/17, 11/21, 6 10 point quizzes, on 8/29, 9/12, 10/3, 10/10, 10/31, 11/7, and a 120 point comprehensive final exam, on a day, at a time, and in a place to be determined by the university. Use of books, notes, calculators, or man-made electronic devices of any kind on exams is prohibited. Absence from an exam or quiz will result in a score of 0 for that exam or quiz, unless the absence is caused by circumstances which are beyond the student's control, and these circumstances are verified by documentation from an appropriate authority (not a family member). If this occurs for a 100 point exam or a quiz, then the grade will be based on the remaining exams and quizzes. If this occurs for the final exam then a make-up final exam will be given.

grading scale: A=432, A-=408, B+=384, B=360, B-=336, C+=312, C=288, D=240

text: Calculus (early transcendentals) by Anton, Bivens, Davis, 10<sup>th</sup> ed, Wiley ISBN 9780470647691

course description: differential calculus of functions of one variable

course objective: understanding of the derivative and some of its applications

course outline ① functions (0.1-0.3); ② limits and continuity (1.1-1.5);

③ derivatives (0.4, 0.5, 1.6, chapter 2, 3.2, 3.3); ④ maxima, minima, mean value theorem

(3.5, 3.6, 4.4, 4.5, 4.8); ⑤ antiderivatives (5.2, 5.3); ⑥ graphing (4.1-4.3);

⑦ more on lines tangent to curves (3.1, 10.1); ⑧ miscellaneous topics (3.4, 4.6)

course outcomes The successful student will be able to ① compute limits, derivatives, and antiderivatives of sufficiently elementary functions; ② apply the geometric information obtained from derivative(s); ③ for suitable word problems, formulate the problem in mathematical terms and solve it using differential calculus; ④ state, and illustrate in a sufficiently simple given example, the mean value theorem

notable dates: no class on 9/5, 11/11, 11/25 due to closure of the university;

drop day is 10/31

early alerts: I am likely to notify advisors of poor performance on exams and quizzes, using the early alert system.