

Guidelines for Instructors of MAC 2233
CALCULUS FOR BUSINESS
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Spring 2012

1. The textbook is the 10th edition of *Calculus* by Hoffman and Bradley. The brief edition is adequate as it covers all the required material.
2. College Algebra is a prerequisite for this course. Students who need to review their algebraic skills need to register in one of the Extended Business Calculus sections. The regular sections start with section 1.5.
3. The teaching pace should be appropriate to cover all the required material. It is very important to set a good pace at the very beginning of the course. The syllabus shows an approximate number of weeks for each chapter.
4. It is recommended that you give a minimum of three tests. (Suggestion: two tests before the drop date.) You may give several quizzes instead of a test.
5. Test questions should be similar to the textbook exercises and problems, requiring students to show the work justifying their answers. Tests should not consist exclusively of multiple choice questions.
6. Graphing Calculators are not allowed during tests nor are formula sheets. Minimize the use of calculators on tests, stressing concepts and procedures, while limiting computations.
7. The final exam must be comprehensive and must count for at least 25% of the grade. No student should be exempt from the final exam.
8. Encourage students to take advantage of all the help that is available. Refer them to the website of the department (<http://casgroup.fiu.edu/mathstatistics/>). Provide them with the user name and password to access the complete solutions manual.
9. Please provide copies of tests and grade distributions, if or when requested, to allow for the assessment of a class progress. In particular, a copy of the final exam and the departmental end-of-term report are required at the completion of the course.
10. Do not hesitate to contact me by phone 305-348-3047 or by e-mail shershcb@fiu.edu for any questions concerning this course.

MAC 2233 SYLLABUS

Spring 2012

Chapter 1. (\approx 1 week)

1.5 Limits.

1.6 One-sided limits and Continuity.

Chapter 2. (\approx 3 weeks)

2.1 The Derivative.

2.2 Techniques of Differentiation.

2.3 Product and Quotient Rules. Higher Order Derivatives.

2.4 The Chain Rule.

2.5 Marginal Analysis and Approximations Using Increments.

Note: Section 2.1 is important; students need to understand derivatives.

Chapter 3. (\approx 2.5 weeks)

3.1 Increasing and Decreasing Functions. Relative Extrema.

3.2 Concavity and Points of Inflection.

3.3 Curve Sketching.

3.4 Optimization; Elasticity of Demand.

3.5 Additional Applied Optimization.

Note: Combine the material in 3.1-3.3 and stress sketching the shape of the curve, not plotting.

Chapter 4. (\approx 1.5 weeks)

4.1 Exponential Functions; Continuous Compounding.

4.2 Logarithmic Functions.

4.3 Differentiation of Exponential and Logarithmic Functions.

4.4 Applications.; Exponential Models.

Note 4.1 and 4.2 are covered in College Algebra.

Chapter 5. (\approx 3 weeks)

5.1 Antidifferentiation. The Indefinite Integral.

5.2 Integration by Substitution.

5.3 The Definite Integral and The Fundamental Theorem of Calculus.

5.4 Applying Definite Integration: Area Between Curves and Average Value.

5.5 Additional Applications to Business and Economics.

Note: Stress applications.

Chapter 7. (\approx 2 weeks)

7.1 Functions of Several Variables.

7.2 Partial Derivatives.

7.3 Optimizing Functions of Two Variables.

Note: spend most of the time in 7.2 and 7.3.