MAC 2233 Calculus for Social and Life Sciences Course Syllabus

Business Calculus: MAC 2233 Ref. No. 81523
Instructor: Lawrence Hawkins

Rm: AC1/155
FIU Office: AC1/304

Hours: TR 2:00-3:15PM
Phone: 305 532-3845 (home)

Office Hours: TR 12:15-2:00PM
Term: Fall 2006 (3 Credits)

E-Mail: maxent31@bellsouth.net
WWW Homepage: http://www.fiu.edu/~hawkinsl


Introduction:

Course Description: This is a general education course which develops the college-level skills of calculus including functions, graphs, limits, differentiation, integration, average and instantaneous rates of change, with special emphasis on business applications.

Prerequisites: MAC 1105 with a grade of "C" or higher, or permission of the Mathematics Department.

Co-Requisites: None

Learning Outcomes:

Upon the conclusion of this course the student should acquire adequate theoretical understanding and an applied working knowledge of the following topics:

1. The student should be able to demonstrate knowledge of the concepts of function, graphing and limits.
2. The student should be able to demonstrate knowledge of the meaning of derivatives, their applications, and rules of differentiation.
3. The student should be able to demonstrate knowledge of integrals and their applications.
4. The student should be able to demonstrate knowledge of exponential and logarithmic functions, their derivatives, integrals, and applications.
5. The student should be able to demonstrate knowledge of the partial differentiation and optimization of multivariable functions.

Hawkins’ Policy on Academic Dishonesty
ZERO TOLERANCE FOR ANY VIOLATIONS OF THE BCC STUDENT CODE OF CONDUCT.
Mathematics Department policy mandates that any student caught cheating will receive an automatic grade of F for the course and be subject to possible further FIU penalties. See the FIU Handbook for details.

Course Materials Needed

1. **Notebook required**, containing all homework (50%), class lectures and discussion (25%), quizzes (20%), and exam corrections (5%). Quizzes may be given at any time in class and will consist of even numbered problems selected from the course text illustrating the day’s assigned material and lecture. These quizzes will be graded with either (√ = correct) or (X = incorrect) as the student leaves the class. The notebook will be graded three times, during each of the three exams, and up to 10 points will be added to each of the pre-final exams in the Final Grade Average.

2. **Scientific Calculator**: A TI 30X-IIS, or a functional equivalent.

3. **Time to work on the material** each and every day! Successful completion of this class is highly correlated to the analytic, computational, and problem-solving skills developed by actual problem solution using proper (long term memory inducing) study techniques. Cramming for this course is ill advised: 8 hours on a Sunday won't make up for not looking at the material throughout the week. You need to plan on spending one to four hours every day on this material, reviewing the old ideas, working with the new problems.

Homework Assignments: At the beginning of each chapter, selected problems will be assigned from the above sections of the syllabus.

Grading Methodology

In order to monitor the progress of the students and to give a numerical evaluation of their performance, letter grades are assigned at the end of the term according to the following weighted averages: Notebook Bonus, Three Exams, each exam worth (including bonuses) up to 100 points, A Cumulative Final Exam worth up to 200 points.

\[
\text{FINAL GRADE AVERAGE} = \frac{[2*\text{Final} + \text{two best pre-final Exams})]}{6}
\]

**Grade average and final course grade**: 

\[
100 \geq A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F \geq 00
\]

The Instructor reserves the right to curve a student’s course grade distribution to reflect significant student progress, end-of-course achievement, and total course mastery as
demonstrated by exceptional achievement on the Final Exam, by replacing the lowest pre-final exam with the final exam score in the FINAL GRADE AVERAGE.

**Special Needs Students:** Contact me personally and/or the FIU Office for Student Success.

**Missed Exam Policy:** Any missed exam will be given a zero. The final exam score will replace the lowest pre-final exam score.

**Student Assistance:**
In addition to my scheduled office hours, there is a wide variety of help available, including a solutions manual for even-numbered problems, recitation sessions, online tutoring, and live one-on-one tutoring. For a complete description and full details, visit the Math Department’s website at [http://w3.fiu.edu/math](http://w3.fiu.edu/math). Look for the sign that says “Help” in the upper right corner. Click on “Math Help”, then on “Business Calculus (without graphing calculators)”. If you have any questions beyond what is laid out on this webpage, call the Math Department at 305-348-2742.

**Withdrawal Date, Credit to Audit change deadline:** Please see the Academic Calendar at [http://www.fiu.edu/](http://www.fiu.edu/). November 3, 2006

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**MAC 2233 Daily CALENDAR**

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<tr>
<th>Date</th>
<th>Day</th>
<th>Class</th>
<th>Topic</th>
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<tr>
<td>Aug 29</td>
<td>1</td>
<td>Intro</td>
<td>1.1-4</td>
<td>Oct 24</td>
<td>17</td>
<td>Review</td>
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<td>Sept 31</td>
<td>2</td>
<td>1.5-6</td>
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<td>Oct 26</td>
<td>18</td>
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