



**MAC2233 – Business Calculus  
Course Syllabus  
Fall 2011  
3 credit hours**

**COURSE INFORMATION:**

<u>Ref. #:</u>	<u>Day / Time</u>	<u>Location:</u>
411044	Tue/Thurs 9:30 – 10:45 am	Building 9 – Room 103
411068	Tue/Thurs 11:00 am – 12:15 pm	Building 9 – Room 103

**INSTRUCTOR INFORMATION:**

**Instructor:** Jennifer Siegel

**E-mail Address:** [jsiegel@broward.edu](mailto:jsiegel@broward.edu) (best method)

**Office:** Building 07 - Office 239

**Office Phone:** (954) 201-6128 (I prefer emails)

**Course Website:** <http://www.broward.edu/~jsiegel>

**Office Hours:** MTWR 8 – 9 am, 3:45 – 4:45 pm  
F 10 am – 12 pm

**MATERIALS:**

**Textbook:** Calculus for Business, Economics, Life Sciences, and Social Sciences (12<sup>th</sup> Ed.), Barnett, Ziegler and Byleen, Prentice Hall Publishers.

**Calculator:** Scientific calculators are required for this course. You may use a graphing calculator, but it is not required. If you are purchasing a new calculator, the Texas Instruments models are easiest to use. There may be some tests where a graphing calculator will not be permitted. **The TI-89 and later models will not be permitted in this course!**

**A Note About Office Hours:** I highly encourage you to come to office hours for help. However, you must come prepared with your work done and specific questions. If you come to office hours because you did not attend class, do your work or read the section, I will ask you to do so before I will help. I am not here to do your work for you!

**VALUABLE RESOURCES:**

**BC Math Lab:** There is drop-in tutoring available for free. The Math Lab is located on the second floor of the library (Building 17). You do not need an appointment. Their phone number is: (954) 201-6645. *Please ask for the Calculus tutoring list for the semester. Not all tutors are going to be qualified to help you with this higher level material. The LRC lab has more Calculus tutors than the Math Lab, so try them first. They are in Building 17 – Room 234.*

**InteractMath Software:** You may use a free version of MyMathLab at [www.interactmath.com](http://www.interactmath.com) for review and extra practice. Our textbook is available on the site, so you can select it from the dropdown list on the first page. This resource can help you with your homework, reviewing Algebra skills and preparing for tests.

**Smarthinking Live Tutoring:** As a BC student, you have 24/7 access to live chat with a math tutor, which can really help if you get stuck. For directions, see the course website, and go to the Business Calculus page, then to Course Resources. (Note: You have a limit of hours you may use for the semester. Check with them for your limit).

**Course Website:** The course website will allow you to view and print handouts you may have missed or lost, test review sheets, solutions to handouts, assignments and tests, links to helpful websites including Smarthinking and InteractMath.com and access to your grades.

**To locate your grade, go to the course website, and click on the Grades dropdown list. Your grade is listed by the last four digits of your Student ID.**

**COURSE DESCRIPTION:** This is a general education course which includes the college level skills of calculus such as functions, graphs, limits, differentiation, integration, average and instantaneous rates of change and other applications. Meets Area 5A general education requirements for the AA degree. Meets Areas 4 or 5 general education requirements for the AS degree. Prerequisite: MAC1105 College Algebra with a grade of "C" or higher or recommendation of the Mathematics Department.

**COURSE CONTENT:**

1. Review of selected topics from College Algebra.
2. Limits and continuity.
3. Differentiation techniques.
4. Derivative applications.
5. Exponential and logarithmic functions.
6. Integration techniques and applications.

**ATTENDANCE:** Attendance is very important for success in this course. If you have three or less absences and at least an 80% average on two quest assignments, your lowest test grade will be replaced by your final exam grade. **It is your responsibility to sign in for attendance at each class period.**

**EXCUSED ABSENCES:** If you are absent for an **extreme circumstance**, you must do the following to have the absence **potentially** excused:

- 1) Email your professor immediately, preferably before the absence takes place.
- 2) You must submit *verifiable* documentation on the day you return to class.
- 3) You may only be granted two excused absences for the entire semester unless the circumstance is quite extreme (i.e., hospitalization, surgery recovery, passing of family member, etc...).

**Note:** Not all absences will be excused, even if the necessary steps outlined above are followed. It is up to the discretion of your professor whether the absence will be marked as excused.

**TARDINESS AND LEAVING EARLY:** You should speak to your professor after class if you arrive late to explain why you are late. If you have to leave early, you should speak to your professor before class starts. **Failure to do either of these will result in a ½ absence for that class period.**

**WITHDRAWALS AND AUDITS** If you wish to withdraw or change to or from audit status, you must do so before **October 26, 2011** by filing the appropriate paperwork in the Registration Office. **To change to audit status, you must sign an agreement with your instructor which specifies the professor's audit policy before she will permit an audit.** *If you stop attending class but do not withdraw, you will earn the grade F in the course.*

**3-TAKE POLICY:** Please be aware that Florida State Law limits you to three attempts at any one course and requires you to pay out-of-state tuition for your third attempt of any course. If this is your third term enrolled in MAC2233, then the grades of "W" and "XC" (audit) are not options and you will have to complete the course or receive a grade of "F".

**CONDUCT AND ACADEMIC DISHONESTY:** Students have a right to learn in a quiet classroom free from interruption. In addition to refraining from talking in class during lecture or other quiet times, all electronic devices should be turned off (except for persons employed in emergency health and safety occupations). Any person who infringes on the learning of others will be asked to leave the classroom and return at the next scheduled class period, and an absence will be recorded that day. Excessive and repeated interruptions may result in permanent removal from the course.

Students are expected to adhere to the College's policies on conduct and academic honesty as stated in the BC Student Handbook and the College catalog. Violations of these policies will not be tolerated. In particular, cheating on a test will result in the student receiving an F in the course and be reported to the appropriate Dean(s) for disciplinary action. If a student cheats on the final exam, the student will earn an F in the course regardless of the course grade.

**Quests:** You will complete two Quest projects during the semester which are to be turned in by the specified due dates. Scoring information will be available on each Quest assignment. You may work in groups of 2 to 3 people, and each group should turn in one project with all names listed. See the "Attendance" section for how the Quests will help you to replace a low test score.

**Tests:** Any cheating on any test will result in a grade of 0 for that test for all involved. A second infraction of cheating on a test will result in failure in the course and referral to the appropriate Dean for disciplinary action.

### GRADING PROCEDURES AND POLICIES:

**\*\*\*ALL QUESTS ARE TO BE HANDED AT THE BEGINNING OF CLASS WITHOUT EXCEPTION\*\*\***

**Homework (0%):** Homework assignments from the book are to be done immediately after that section is taught in class. Homework will not be collected, but if you do not regularly do homework, you will not succeed in this class. Please refer to the back of the book and the Student Solution's Manual (copies are in the Math Lab if you do not want to purchase one) for answers and solutions.

**Quests (20%):** You will complete two Quest assignments during the semester which are to be turned in by the specified due dates. See the "Attendance" section for information about how your quest average can help replace a low test score.

**Unit Tests (60%):** There will be four unit tests for the semester (see Course Schedule for dates and coverage). Some formulas will be given, and you will be notified beforehand which you are responsible for knowing. Review sheets and practice tests are available for practice on the course website. See the "Attendance" section for information about how your quest average can help replace a low test score.

**Final Exam (20%):** The final exam is cumulative and will be held on the date listed in the course schedule. **If you miss the final exam, you will fail the course regardless of your course grade before the final.** If you have an extreme circumstance that prevents you from taking the final exam, you must notify your professor immediately and provide verifiable documentation, and it is up to the discretion of the professor whether an incomplete will be awarded to make up the final. It is very rare that an incomplete would be granted.

### MAKE-UP POLICIES:

**Quests:** There are no make-ups for Quests. If you are absent the day a Quest is due, it is your responsibility to get it to me before class starts, either in the classroom or by dropping it at my office. You may also give it to a member of your group to turn in.

**Tests:** There are no make-ups for tests, unless you are granted an excused absence (see policy above). The circumstance should be quite extreme to miss a test. If you do have to miss a test and are not granted a make-up, you may replace your lowest test grade with your Quest average (see the "Attendance" section for information about how your quest average can help replace a low test score).

**If you must miss class...** You should: a) email your professor to let her know you will not be attending; b) get the notes from a classmate; c) check the course website for any handouts you missed.

**GRADING:** Your performance in this course will be evaluated based on the following grade weights:

Quests .....20%  
Tests (4 unit exams) .....60%  
Final Exam (cumulative) .....20%

The scale used to determine your overall course grade is as follows:

A = 90% - 100%      B = 80% - 89%      C = 70% - 79%      D = 60% - 69%      F= Below 60%

**Note about running out of time on tests:** Sometimes, students feel they are not able to finish a test on time. If this happens to you, examine what you're doing and how to change it. If you have studied enough, you should be able to finish with extra time to check your work. If you feel you have studied enough, but you are still running out of time, you should do practice tests before each test without notes and time yourself (1 hour and 15 minutes) to see how you do and how much time you have. If you're running out of time still, you need to examine what is taking you so long and fix it. Please see your professor for additional tips.

**Note about test and homework reviews in class:** Typically in this course, there is rarely time to do in-class review for tests or go over homework problems. However, I will be happy to answer any questions you have after class and in office hours. I have provided many resources for you to prepare for class and tests. *I highly encourage you to form study groups for test reviews. If you need help finding a study group, see me after class and I can introduce you to other students.*

### How to Calculate Your Grade

#### Quests Percentages: (verify percentages online)

Q1: \_\_\_\_\_% Q2: \_\_\_\_\_% Quest Average: \_\_\_\_\_%

Do I have at least an 80% average? \_\_\_\_\_ Do I have 3 or less absences for the semester? \_\_\_\_\_

#### Test Percentages: (verify percentages online)

T1: \_\_\_\_\_% T2: \_\_\_\_\_% T3: \_\_\_\_\_% T4: \_\_\_\_\_% Test Average: \_\_\_\_\_%

(\*\*\* If you have 3 or less absences and you at least an 80% quest average, replace the lowest test average with your final exam score. Recalculate the test average by adding up the test percentages and dividing by 4. )

Final Exam Score: Score: \_\_\_\_\_%

---

#### How to Calculate Your Grade:

$$(0.2)(\underline{A}) + (0.6)(\underline{B}) + (0.2)(\underline{C}) = \underline{D}$$

A = Quest average (as a decimal)

B = Test average (as a decimal)

C = Final exam score (as a decimal)

D = Your final grade as a decimal. Convert to a percentage to see what your final grade is.

**\*\*\*Feel free to ask your professor if you have any questions about your grade or calculations.**

## THE SUCCESSFUL STUDENT'S STUDY METHOD

- 1) Take notes from the section in the text and do all examples BEFORE you start your homework for that section. Putting the information into your own words helps you organize it in your mind. If you can explain something, that means you understand it! **Compile a list of what you do not understand and get help with those items immediately!**
- 2) Take notes in class, and then take notes from your notes. If you put your notes into your own words, it means your brain is organizing it in a way that's helpful to you. Do this also BEFORE you start your homework for that section. **Compile a list of what you do not understand and get help with those items immediately!**
- 3) If you do steps #1 and #2 before starting homework, you will find that your homework goes a lot faster.
- 4) Write down important formulas and definitions in one place. This makes your work go faster because it's all in one place, and you will remember it better when it comes time to take the test.
- 5) When reviewing for the test (which is not just the day before, hopefully), you should compile your notes from class and the book into one condensed study guide. This way, you will have less to study. You will also be able to identify areas you are having more trouble with and be able to focus your studies better on those areas.
- 6) Go through the review sheet for the test and compare it to your study guide to make sure you have prepared thoroughly for each topic, concept and/or skill.
- 7) Make a practice test or two, put all notes away, and give yourself 1 hour 15 minutes to complete it. Score it and this will let you know how prepared you really are!

## ??? DO YOU SUFFER FROM TEST ANXIETY ???

Many students suffer from an anxiety while taking tests that is severe enough to affect their testing performance. If you are having trouble on a test remembering information, blanking out, or other emotional, behavioral or physical symptoms, there are several things you can do to help:

- 1) Overstudy!!! This is the #1 cure for test anxiety. When you get nervous, if you have over-prepared, your brain goes into "automatic" and kicks in to help you.
- 2) Relax! It's just a test. It's not the end of the world. If you are getting nervous during a test, stop, turn the test over, and take some deep breaths. Return to the test when you feel calmer.
- 3) Skip around and do the easier problems first. This builds confidence and lets you focus better.
- 4) If you get stuck on a problem, circle it and move on. Come back and finish later.
- 5) Note the time. If you are having trouble with running out of time on a test, either you didn't prepare enough or you didn't practice taking tests enough. You should do at least one practice test before a real test in any class to time yourself and improve your speed.

There are many resources for help with test anxiety. Go to [www.google.com](http://www.google.com) and type in "test anxiety" and you will find many resources to help you. You may also talk with your professor directly and see what she can do to help!

## GREAT TEST-TAKING STRATEGIES

- 1) Always plan to leave extra early on test day so you are able to arrive 10 minutes early to class. Rushing to a test only makes you more nervous.
- 2) Get a good night's sleep. Cramming all night for a test has been proven to lower test performance. It is better to review the night before and then rest. You will be able to focus better.
- 3) Eat a good breakfast. If you arrive tired and on an empty stomach, this has been proven to lower test performance. Avoid things like caffeine that tend to make you nervous and jittery.
- 4) During the test, NEVER, EVER, NOT EVEN ONCE leave a question blank. Guess if you are not sure. You may get partial credit even if you do not finish for at least having the right idea (if you do, that is).
- 5) Do the easy problems first to build confidence.
- 6) Do not let yourself get stuck on a problem. If you are stuck, move on and come back. Note the time during a test and manage your time wisely.
- 7) Ask your professor if you are unclear on the wording on a problem or are unsure what you are being asked.
- 8) Use all of your time. There is no bonus for finishing early, and rushing through just to leave early most times results in a lowered score. If you do finish early, review every problem and make sure you are accurate and complete. Make sure you haven't left anything out!
- 9) **The number one thing students do on tests that results in a lower score...** Students often are nervous during a test and do not read directions carefully. Be sure you answer completely, in detail, and do everything asked. If a problem says to check your answer, make sure you do!
- 10) **Leave enough time to review your work!** Not doing so will result in perhaps careless errors you could have caught if you took a few minutes to review.

**TENTATIVE COURSE SCHEDULE:** This schedule will serve as a guide for the course but may change as needed. Any changes will be announced in class.

<b>Date</b>	<b>Day</b>	<b>Section Coverage and Due Dates</b>
R	8/18	Introduction / 1.2
T	8/23	2.1
R	8/25	2.2
T	8/30	2.4
R	9/1	Holiday – no class!
T	9/6	2.5
R	9/8	2.6
T	9/13	3.1
R	9/15	<b>Test #1 (1.2, 2.1, 2.2, 2.4, 2.5, 2.6)</b>
T	9/20	3.2
R	9/22	3.3
T	9/27	3.4
R	9/29	Holiday – no class!
T	10/4	3.5
R	10/6	3.7 <b>Quest #1 due</b>
T	10/11	4.1
R	10/13	<b>Test #2 (3.1 – 3.5, 3.7)</b>
T	10/18	4.2
R	10/20	4.3
T	10/25	4.4
R	10/27	5.1
T	11/1	5.2
R	11/3	5.4
T	11/8	<b>Test #3 (4.1 – 4.4, 5.1, 5.2)</b>
R	11/10	5.5
T	11/15	5.6
R	11/17	6.1
T	11/22	6.2 <b>Quest #2 due</b>
R	11/24	Holiday – no class!
T	11/29	<b>Test #4 (5.4 – 5.6, 6.1, 6.2)</b>
R	12/1	<b>Review for the final exam</b>

**Final exam dates and times:**

- **9:30 class:** Thursday, December 8, 2011 – from 8:30 – 10:20 am
- **11:00 class:** Tuesday, December 6, 2011 – from 10:30 am – 12:20 pm

**You must attend the final exam for the class you are registered in unless you make special arrangements with your professor.**

### MAC 2233 – Textbook Homework Exercises

**Check your answers to odd problems in the back of the book. Get help when you do not understand something and always read each section first before starting homework problems.**

<b>Section</b>	<b>Assignment</b>
1.2	5, 7, 11, 13, 47, 49, 51, 53, 55, 57, 61, 63, 77
2.1	69, 71, 73, 75, 77, 79, 81, 87, 89
2.2	9, 11, 17, 19, 20, 37, 39, 41, 43, 45, 47, 61, 65, 67
2.4	33, 35, 37, 39, 41, 43, 45, 47a,b,c, 49,a,b,c, 51,a,b,c, 57, 59a,b,c
2.5	1, 5, 7, 9, 11, 13, 15, 17, 29, 31, 33, 35, 37, 43, 45, 47, 51, 57
2.6	3, 5, 7, 9, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 43, 45, 47, 49, 61, 63, 65, 71, 73, 79, 81, 83
3.1	1, 3, 5, 7, 9, 11, 13, 17, 19, 23, 25, 27, 29, 33, 35, 37, 39, 41, 43, 45, 47, 51, 53, 55, 57, 79, 81
3.2	1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 43, 47, 51, 63, 65, 67, 69, 71, 73
3.3	1, 3, 5, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 37, 39, 41, 43, 49, 51, 53, 55, 57, 59, 61, 63, 71, 73, 77, 79, 83
3.4	1, 3, 5, 7, 9, 15, 19, 21, 25, 27, 31-38, 51, 53, 63, 65, 72
3.5	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 31, 33, 35, 37, 39, 43, 45, 47, 49, 51, 69, 71, 73, 81, 83, 87
3.7	1, 3, 5, 7, 9, 11, 13-20, 25, 27, 31, 33, 35, 37, 39, 41, 43
4.1	1, 5, 7, 9, 17, 19, 21, 25, 27, 33, 37, 39
4.2	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 55, 57
4.3	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 41, 43, 45, 47, 49, 51, 55, 57, 65, 67, 71, 73, 77, 79, 81, 83, 85, 87
4.4	1, 3, 5, 7, 9, 11, 13, 15, 19, 21, 23, 27, 29, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 79, 81, 91, 93, 97
5.1	1-9, 11-18, 19, 21, 23, 27, 29, 31, 33, 35, 37, 39, 49, 51, 523, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 81, 83, 85, 89, 93, 97
5.2	1, 3-7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 29, 31, 33, 35, 37, 39, 41, 45, 49, 53, 55, 57, 61, 63, 85, 89, 91, 95
5.4	1, 3, 5, 7, 9, 11, 13, 15, 73, 77, 79
5.5	1, 3, 9, 13, 15, 17, 19, 21, 25, 31, 33, 35, 37, 59, 61
5.6	11, 13, 17, 19, 27, 29, 30, 31, 33
6.1	1, 3, 5, 7, 11, 13, 15, 19, 21, 23, 31-34, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 69, 71
6.2	1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 25, 33, 35, 51, 53, 55, 57, 67, 69, 71
6.5	5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 37, 49, 53