

**Syllabus MTH 2201  
Spring 2016**

**Class Time:** M, W, F 10:00 - 10:50 am  
**Instructor:** Pat Rossi  
**Office:** McCartha 202B; (334)670-3588; prossi@troy.edu  
**Office Hours:** M 11:00 - 11:50; 2:00 - 3:30; 5:00 - 6:00  
T 1:00 - 3:00  
W 11:00 - 11:50; 2:00 - 3:30  
F 11:00 - 11:50  
**Or By Appointment**

**Text:** **Business Calculus - Calculus and its Applications, Tenth Edition (Custom edition for Troy University)** by Bittinger, Ellenbogen & Surgent, Pearson Custom Publishing, 2012.

**Also:** Student Access Code to MyMathLab

**Calculation of Final Average**

|              |     |
|--------------|-----|
| Test Average | 65% |
| Final Exam   | 25% |
| Homework     | 10% |

**Assignment of Final Grade**

| <b>Final Average</b> | <b>Grade</b> |
|----------------------|--------------|
| 90-100               | A            |
| 80-89                | B            |
| 70-79                | C            |
| 60-69                | D            |
| 0 -59                | F            |

**NOTE: Final Grades Cannot be Given Out Over The Phone**

**Tests**

**We will have four (4) hour tests** during the semester. Each test will be announced at least a week in advance. Tests and homework assignments will be returned to the students (to keep) after they have been graded, but will remain the permanent property of the Instructor even after they are returned to the students.

**Final Exam:** Our Final Exam will be on Monday, May 2, from 2:00 pm - 4:00 pm. Students will not be allowed to take the Final Exam early. Exceptions WILL NOT be made for those who have made travel arrangements (e.g. purchased an airplane ticket) for a date on, or before the Final Exam.

### **Makeup Policy:**

There will be no make-up tests given during the semester. Make-up tests will be given on Wednesday, April 27 (10am-11am) **for those students who missed a test** during the course. **No student will be allowed to make up more than one missed test.** Notice that these make-up tests are only given to students who **missed a test** (for whatever reason) during the course. (This implies that you may choose to miss a test if you feel that you are not ready. Don't do this indiscriminately - You may need to miss a test later on in the course, due to extreme illness, etc. Nevertheless, the option remains. One catch - once you enter the room to take an exam, you must take the exam. You will not be allowed to enter the room, look at the exam, and then decide whether or not you want to take the exam.

### **Attendance Policy:**

More than five (5) absences (other than University Excused absences) will result in a grade of FA (Failure due to excessive absences).

### **Study and Preparation:**

To increase your chances for success, do the assigned homework when it's assigned and ask questions either in class or during office hours on problems that you find difficult. Most of the homework that is assigned will not be collected or graded. Nevertheless, you are still expected to do it - and to a great extent, your conscientiousness in this matter will determine your success in the course.

For your benefit, **practice tests and other material are available on my website.** These practice tests are a good way to prepare for the tests, and you are encouraged to use them. Consider them to be a "tune up" for tests, rather than a substitute for doing the assigned homework. To get to my website:

1. My website address is: <http://www.pat-rossi.com/>
2. Click "Academic Links for Troy University Students"
3. Under "Course Links," click "MTH 2201."

I highly recommend the services of the *Natural Science Center*. It is located in Room 126 of Eldridge Hall and the phone number is 670-3139. The *Center* has tutors available in Biology, Chemistry, Mathematics, and Physics. I encourage you to visit the *Center* early in the semester so that you can become familiar with their services. Through their tutors, they provide an invaluable service and many of my former students have benefitted greatly from their help.

**Course Description:** An introduction to the basic ideas and techniques of differential and integral calculus, especially as they relate to problems involving maximum and minimum values of functions and marginal analysis. **Prereq.** MTH 1112 or 1115 with a grade of C or better, or advanced placement.

## **Course Objectives:**

Upon Completion of this Course the student should:

1. understand the derivative as a rate of change.
2. be able to perform the operations of differentiation and integration on common functions.
3. Solve maximum and minimum problems, with applications to business and economics.
4. Use the definite integral to solve consumers' surplus and net gain problems.

## **Course Requirements:**

1. The student is expected to attend each class session and to participate in class discussion.
2. The student is expected to complete all homework assignments punctually.

## **Course Contents:**

1. The slope of a line, and rate of change
2. The Derivative and Techniques of Differentiation
3. Approximation by Differentials and Marginal Analysis
4. The Chain Rule
5. Higher Order derivatives
6. Relative Extrema, Curve Sketching, and the First Derivative Test
7. Concavity, Curve Sketching, and the Second Derivative Test
8. Absolute Extrema
9. Optimization Problems in Business and Economics
10. Anti-derivatives, Definite Integrals, and Integration by Substitution
11. Application of the Integral to Problems in Business and Economics
12. The Natural Logarithm and its Derivative, the integral of  $1/x$
13. The Exponential Function, its Derivative and its Anti-Derivative

**Graded Homework Assignments:** Graded homework assignments will be from MyMathLab on the <http://www.coursecompass.com> website. Each Assignment, along with its due date, will be announced in class as well as through your Troy e-mail account (So check your e-mail regularly and keep your mailboxes cleaned out!). Instructions for registration will be handed out in class.

## **AMERICANS WITH DISABILITIES ACT:**

Troy University supports Section 504 of the Rehabilitation Act of 1973 and the Americans With Disabilities Act of 1990, which insure that postsecondary students with disabilities have equal access to all academic programs; physical access to all buildings, facilities and events; and are not discriminated against on the basis of disability. Eligible students, with appropriate documentation, will be provided equal opportunity to demonstrate their academic skills and potential through the provision of academic adaptations and reasonable accommodations. Further information, including appropriate contact information, can be found at the link for Troy University's Office of Human Resources at:

<http://www.troy.edu/humanresources/ADAPolicy2003.htm>

## **Incomplete Policy**

A grade of “I” (incomplete) may be given in the case of illness or emergency situations occurring towards the end of the semester, which make it impossible for the student to complete all course work by the end of the semester in such a way that the student’s performance accurately reflects his or her mastery of the course. Such grades are given very sparingly, and only in a case of genuine hardship. Time limits for removing an incomplete can be found in the Undergraduate Bulletin. To receive a grade of “Incomplete,” a grade of “Incomplete” must be requested by the student and approved by the instructor. (i.e. The student must initiate the process.) See the undergraduate catalog for complete information.

## **Academic Honesty**

Academic misconduct shall be handled according to the guidelines listed in the *Oracle*.

**Other Matters:** Behavior such as wearing headphones in class, sleeping in class, exiting class during a lecture, talking to classmates during the lecture, reading a newspaper during class time, reading a book other than the assigned text for the course during class time, or doing work not assigned in this class during class time will not be tolerated. (If you are sick, or need to use the restroom, raise your hand and ask to be excused.) Also, I do not “grade” students’ tests immediately after the test is turned in – please don’t ask me to grade yours. Also, I don’t show the solutions to problems on a test to students immediately after they turn in their test – please don’t ask me. The solutions are posted on my website within a reasonable amount of time after the test is given, so there is no need for me to work the problems out at the request of each person who asks.

## **Cell Phones and Other Electronic Devices**

Troy University no longer has a cell phone policy. This means that I will not prohibit students from having a cell phone, tablet, etc. on their desk, except while tests are being given. I do not like for students to have such devices in plain sight and engaged in their use during my lectures - it’s discourteous and it’s a distraction to the person who has the device and to others around him/her. Considering how much students pay for each credit hour of instruction, being engaged in using such devices during class time also wastes money that students pay for tuition. But, since there is no longer any University policy regarding the use of such devices in the instructional environment, there is not much that I can do to prohibit their use (except during tests). While taking tests, neither calculators nor cell phones, tablets, etc. will be allowed on your desk and/or in your work environment. Particularly, the use of a communication device to violate the Troy University *Standards of Conduct* will result in appropriate disciplinary action (See the *Oracle*.)

It would be a courtesy for students who are expecting an emergency call to inform me before the start of class. Students receiving calls that they believe to be emergency calls should answer quietly without disturbing the teaching environment. If the call is an emergency, they should move unobtrusively and quietly from the instructional area.

## **Important Dates (Which Are Not Listed Elsewhere in the Syllabus)**

|          |  |
|----------|--|
| Jan 11   | Last Day to ADD a Course In Person/Web Express Without Financial Penalty                                   |
| Jan 11   | Last Day to Withdraw from the University Without owing Full Tuition (cannot be done on Trojan Web Express) |
| Jan 11   | Last Day to Drop a Course In Person/Web Express Without Financial Penalty                                  |
| Jan 18   | Holiday (Martin Luther King, Jr. Day) – no classes   |
| Mar 7-13 | Spring Break – no classes  |
| Mar 14   | Last Day to Drop a Course – No Drops after this date   |
| Mar 14   | Last Day to Withdraw – No Withdrawals after this date  |
| Mar 14   | Last Day to Complete Incomplete Work from the previous semester  |
| April 8  | Last Day to File Intent to Graduate for Summer 2016  |
| April 26 | Last Day of Classes – Classes End  |
| April 27 | Dead Day   |

## **University Firearms Policy**

Regardless and in spite of recent changes in Alabama law related to the matter, it remains the policy of Troy University that no person other than authorized law enforcement officers shall be permitted to bring any firearm onto any campus, teaching, or service support property, owned or leased by the University, regardless of whether or not they hold a permit to do so. It has been determined that it is the University's prerogative to establish its policy related to this issue and therefore the current University policy on firearms remains in effect.

### **Questions on Grading:**

The instructor will entertain questions regarding grading of tests and assignments in his office, during office hours only. No questions regarding grading will be addressed during class.

**This syllabus represents a tentative plan for the instruction in this course. The instructor reserves the right to amend this syllabus if, in his opinion, such action will enhance and/or optimize learning. Any changes in this syllabus will be announced in class and/or on the instructor's website. This syllabus is a best possible assessment of the course aspirations, assignments and requirements at the time it was developed for this semester.**