Faculty Instructor: Matthew Ballard
Office: LeConte 317M
Email: ballard@math.sc.edu (best method of contact!)
Office hours: In LeConte 317M,
Thursday 11:50am–2:50pm
Or by scheduled appointment.

Course webpage: [http://people.math.sc.edu/ballard/teaching/15fall/141/](http://people.math.sc.edu/ballard/teaching/15fall/141/)

Locations and Times:
- Lecture: Tuesday and Thursday 10:05–11:20am LeConte 405
- Discussion: Wednesday 10:50–11:40am LeConte 401
- Maple Lab: Monday 10:50–11:40am LeConte 401

Prerequisites Grade of C or better in Math 112, 115, 116, or by Precalculus Placement Test.

Course Text George B. Thomas, Jr.: Thomas’ Calculus Early Transcendentals, 13th ed., Pearson, 2014. The lectures are meant to supplement, not substitute for, reading the textbook. Reading the material in advance of the lecture is strongly encouraged.

Course Description This is the first course in the traditional three-semester calculus sequence. Learning calculus involves a certain amount of formulae, methods, and techniques. It is equally important that you obtain a fundamental understanding of the concepts: limits, differentiation, and integration. The lectures, discussion, and lab sessions are designed to help develop your understanding of these concepts. The course will roughly cover Chapters 1-5 of the text.

Learning Outcomes Upon completion of this class, time allowing, you will be able to

1. Understand the idea of a function in multiple ways and be able to glean relevant information from each presentation.

2. Handle polynomial, trigonometric, exponential, and logarithmic functions with greater ease.

3. Conceptually understand what the derivative of a function means and be able to compute it for functions of the type just mentioned.

4. Use derivatives to solve optimization problems.

5. Conceptually understand what the integral of a function means, how it relates to derivatives, and how to compute it some examples.
**Homework**  Homework will be assigned each Wednesday, unless otherwise indicated, and due the following Wednesday. Homework assignments will be posted on the course webpage. The majority of problems will be taken from the textbook. Homework is intended to help you master the material and prepare you for the exams. You are encouraged to work in groups to solve the problems, but you are required to write up your own assignment yourself and in your own words.

Very rare is the person who can learn without doing. Doing problems is vitally important in mathematics. These homework assignments are the key to your success in this class. Homework will be scored out of 4 points. The four points will be awarded for completeness: you will receive a 4 if all assigned problems are satisfactorily completed, 3 if more than 75% is done, 2 if more than half, and 1 if more than 25% of the assigned problems are completed, and a 0 otherwise.

**Quizzes**  At the start of Discussion each Wednesday, there will be a quiz, unless otherwise indicated. It will last 20 minutes and consist of two problems from the homework assignment due that day. It will be scored out of 10 points. Partial credit is possible but proper explanations and solid reasoning are just as important as the correct final answer.

**Maple Labs**  Each Monday’s Maple Lab provides hands-on activities that will further your understanding of calculus and provide an introduction to and instruction in the use of modern computer software (Maple). The Maple Labs are uniform across all sections of Math 141. For more information, consult your lab TA and see the lab webpage:

http://www.math.sc.edu/calclab/141L-F15/

**Midterm exams**  There will be 3 midterm exams: the first on September 16, the second on October 21, and the third on November 24. Each exam will last an hour. The first two will be during Discussion and the last will be during Lecture. A single 8 × 11 sheet of handwritten notes (front and back) is the only aid allowed. Your sheet of notes will be collected and not returned. You will be required to have your Carolina Card for each exam. If you have a question or concern about the grading of exam, you need to attach to the exam a separate sheet of paper with an explanation of your question or concern and return it to me within the week after receiving the graded exam. I will take the exam home, read your note, and address the concern.

**Final exam**  The final exam will take place Saturday, December 10 9:00–11:30 a.m in LeConte 405. The final exam is cumulative. A single 8 × 11 sheet of handwritten notes (front and back) is the only aid allowed. You will be required to have your Carolina Card for the final exam.

I am required to retain your completed final exams. I will hold extended office hours in the days following the final so you may meet with me and look over your scored final.

**Grades**  Here is the distribution for calculating the final raw score in the course:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>25%</td>
</tr>
<tr>
<td>Midterms</td>
<td>40% total</td>
</tr>
<tr>
<td>Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Maple Labs</td>
<td>5%</td>
</tr>
</tbody>
</table>
The lowest two homework scores, the lowest two quiz scores, and the lowest midterm exam score will be dropped. Extra credit does not exist.

Distribution of letter grades will be based on a linear ranking of your final raw score and guided by the historical distribution for Math 141 provided below

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>57%</td>
</tr>
<tr>
<td>B/B-</td>
<td>28%</td>
</tr>
<tr>
<td>C+ and below</td>
<td>15%</td>
</tr>
</tbody>
</table>

Please note this is only a guide.

**Extra Course Material** The math department server is littered with webpages from previous semesters of Math 141. Many provide old exams with solutions.

**Academic assistance** If you feel like you’re getting behind in the class, you probably are – do not wait until it is too late to seek help! If you receive a low score on the first exam, it’s probably already too late. You can avoid this by taking advantage of the many resources available.

The easiest way to make sure you are not getting behind is to ask lots of questions in lectures, recitation, and office hours. Learning mathematics is an active process. In addition to these resources, several forms of Math 141 help are available at USC.

- The [Math Tutoring Center](#) offers free tutoring to USC students covering classes including Math 141.
- The [Student Success Center](#) offers free drop-in tutoring for 100-level math courses.
- The Math Department maintains a [private tutor list](#).
- [Academic coaching and engagement](#) through the Student Success Center provides success resources, study skill strategies, and guidance to engagement on campus.

**Students with disabilities** Students with disabilities may receive assistance through [Student Disabilities Services](#).

**Late policy** Late work will not be accepted. There will be no make-up exams. If a religious holiday or a mandatory university event conflicts with a quiz or exam, I must be informed at least two weeks before the date of the exam. If there is a documentable emergency, please stop by office hours or contact me, as soon as possible, to arrange a meeting to discuss the situation.

**Calculators** Calculators will be not be allowed for exams, nor should they be needed. I would suggest not using calculators for homework to prepare for the tests.

**Academic and personal conduct** As you should always be aware, the University of South Carolina operates under an [Honor Code](#). While in class, please silence all electronic devices, including cell phones and tablets. If you must enter or exit while class is in session, please do not draw attention. In general, please strive to be minimally disruptive to your fellow students. I expect all students in the class to practice personal and academic integrity.