

# Syllabus

## Math 1080 – Fall 2014

### Section 100

**Instructor:** Dr. Jim Brown

**Office:** Long Hall 111

**Phone:** 864-656-2331

**Email:** jimlb@g.clemson.edu

**Class Meeting:**

MWF: 11:15 - 12:05 Daniel 301

Th: 11:00 - 11:50 Daniel 209

**Office Hours:**

M: 9:00 - 10:00

F: 13:00 - 14:00

(and by appt.)

**Textbook:** *Calculus Single Variable: Early Transcendentals* 7th edition by James Stewart. You will also need to purchase access to WebAssign. Likely this will be bundled with the book unless you buy a used copy online.

**Material:** We will cover Chapters 5 - 11, though Chapter 5 will be covered very quickly as it should already be known.

**Attendance:** Attendance for this class will not be taken. However, it is very important for your understanding of the material that you attend class regularly.

While in class you are expected to pay attention and participate. I will often have you break into groups and work on examples of what we have been talking about. Often I will have a group present the results at the board.

**Cell Phones:** Cell phones are to be turned to silent during class and exams. You should be paying attention and not playing on your phones during class.

**Calculators:** There is not a required calculator for the course. You will be allowed to use a basic scientific calculator on exams to do addition, multiplication, etc., but nothing with graphing capabilities.

**Laptops:** We may use laptops in class from time to time. They will be used to access SAGE when I feel graphing things on SAGE will help your understanding.

**Grading:** Your final grade will be calculated in two ways. I will assign everyone a grade with each method. I will then give you the higher of the two letter grades. For example, if you get a B with the first method and a C with the second, your final grade will be a B.

Method 1 is the following breakdown of grades.

Grades are based on the following:

WileyPlus Homework:	5 %
Written Homework:	15 %
Midterm Exam 1:	15 %
Midterm Exam 2:	15 %
Final Exam (cumulative):	50 %

Method 2 is that your final exam will replace any of the midterms that had a lower score. For example, if you score an 82 Midterm 1, a 65 on Midterm 2, and a 81 on the Final Exam, your scores will be 82, 81, 81.

The grading scale will be no worse than the following:

$\geq 90\%$	A
$\geq 80\%$	B
$\geq 70\%$	C
$\geq 60\%$	D

This means if your final grade is a 90%, you will receive an A for sure. However, it may be the case that your final grade is an 85% and you receive an A.

**Exams:**

Midterm 1: 09/24/14 18:45 - 20:15 in Martin E004

Midterm 2: 10/29/14 18:45 - 20:15 in Martin E004

Final: 12/08/14 11:30 - 14:00 in Daniel 401

Make-up exams for midterms will not be given, regardless of the validity of

the excuse for missing the exam. If you miss a midterm, your grade will almost surely be calculated from Method 2.

**WebAssign Homework:** This homework is done online and will consist of more routine problems. Many of you will have had information for access bundled with your textbook, but if not you can purchase access online at the website. The class key is:

clemson 8043 4570

**Written Homework:** I will hand out a few problems that are more difficult each week. These will include story problems, as well as other problems that require you to understand the material at a level deeper than just memorizing formulas and applying them. You are strongly encouraged to work on these problems in teams, though you are required to each write up your own answers. If you work with others, you are required to indicate on your assignment each person you worked with. (This is a matter of academic honesty.) You will have one week to turn these problems in once they are handed out except during exam weeks. They must be in my hand by the start of class one week from the date handed out or I will not accept them.

**Exams:** The exams will be comprised of a selection of problems ranging from straight-forward to challenging. You should not expect to score more than 60% on the exams if you have merely memorized formulas and algorithms without understanding the material. The exams will reflect the homework problems, but you will never see a problem on an exam that is identical to one graded for homework.

**Goals:** It is the goal of this course for you to learn all of the material contained in Chapters 5-11 of the textbook. At the end of this course you should expect to be able to do any of the routine calculations in this book, but also understand the concepts behind these calculations as well as be able to turn story problems into equations you can work with.

**Learning outcomes:**

1. Apply the Riemann sum and the associated definite integral for geometric and physical quantities arising frequently in engineering applications (e.g. mass, work, centroids, volume of a solid of revolution, income streams, probability density functions).

2. Be able to recognize situations not already encountered in which one can slice something up into smaller and smaller pieces to obtain an integral.
3. Apply integration techniques (integration by parts, trigonometric integrals, trigonometric substitution, partial fractions, and improper integrals) to evaluate integrals.
4. Represent the equations of graphs on the rectangular coordinate system in either rectangular, parametric, or polar form and describe the relationship between polar and rectangular coordinates. Apply calculus techniques to study curves in rectangular, parametric, or polar form and recognize which form is suitable for a given application.
5. Demonstrate fundamental concepts in sequences and series (e.g. convergence properties), which will be needed in applications.
6. Demonstrate problem-solving and communication skills.

**Accommodations:** Students with disabilities who need accommodations should make an appointment with Dr. Arlene Stewart, Director of Disability Services, to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when they meet with instructors. Student Disability Services is located in Suite 239 Academic Success Building (656-6848; sds-l@clemson.edu). Please be aware that accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester.

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the Director of Access and Equity. His office is located at 111 Holtzendorff Hall, 864.656.3181 (voice) or 864.565.0899 (TDD).

**Academic Integrity:** As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary" of learning. Fundamental to this vision is a mutual commitment to truthfulness, honor and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating or stealing in any form.