| Calculus I | **Syllabus** |
| MAT 201 – G11 | Spring, 2015 |

Instructor name: Harry S. (Steve) Mills
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Class: 12:10 – 1:00, MTWRF
Ed Beaty Hall 140

IMPORTANT: The student is responsible for reading, understanding, and complying with all Standard Syllabus Policies (http://www.aims.edu/inside/policies/standard-syllabus/), unless otherwise stated, below.

Student Conduct and Civility Statement: *Let common sense and common courtesy prevail!*
If they do *not* prevail, the student will be held to the letter and spirit of our Student Conduct Policy, which is discussed here:

http://www.aims.edu/student/conduct/code-of-conduct?expanddiv=item1#expectations

Required Course Materials and Resources:

Text: Calculus by Stewart, 7th Edition

E-Mail: Use E-Mail tool on Course Website, by clicking on "Classlist" link and then clicking on my name in the listing. Emergency e-mail: *steve.mills@aims.edu*

Course Website:
    Go to http://www.aims.edu/
    Login using the MyAims button on the right.
    Click on **My Courses** tab.
    Select this Calculus from the list.

Please see the Course Website for this syllabus, course schedule, assignment list, lecture notes, practice tests, homework and test solutions, and other information.

Unlined Paper for homework: This is important for my ability to read your work and for most students' math writing to refine to the next level. Don't worry about writing too big or too pretty. Just write clearly, leave lots of room, and don't write too *small*.

Catalog course description and prerequisites: Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals. Trigomometric functions are included. Prerequisite: "C" or better in MAT 121 and MAT 122, 80 or above on Accuplacer College Math Test, or 28 on the math portion of the ACT test, or 740 on the math portion of the SAT test. Five credits.

Grades:

Grading:	
4 Chapter Tests:	50%
Final Test:	20%
Homework:	30%

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

Chapter Tests: At the end of each of Chapters 2 – 5, there will be an in-class Chapter Test. Your Test Grade is the average of your Test Scores (as a percent). I will drop your lowest Test Score.

Final Test: At the end of the course, there will be an in-class Final Test, at a specific time to be announced. Your Final Test Grade will be figured as a percent.

Homework: Your final homework grade will be based on 85% of the available points (approximately 600 points available, 10 per assignment). So if you're getting 85% each assignment, on average, you will earn 100% credit for the homework segment.

Virtually every day, you will submit (well-)written homework.
Each assignment is worth 10 points. No late assignments will be accepted.

I will typically grade 3 exercises, *when I grade it*! I'm more interested in the learning than in the jumping through hoops, and I think *giving* you *my* version of the solutions can help speed things up, a *lot*, for you. What you do with this resource is pretty much what you'd do with my returning graded work. The key is to see what I'm saying and ask about anything you don't understand.

Make sure that your homework is...
- ... on unlined paper (copier paper, or the back of already-printed-on pages).
- ... written on one side of each page (I won't even look at the back of any page.)
- ... clear (Your reasoning!)
- ... stapled in the top left-hand corner (if the front is facing up)
- ... submitted with problems in the proper order. I won't go hunting for missing problems. If they're not where I expect them, I won't find them.

Before **Class:**
- Always read the next section before class. The Course Outline pretty much tells you what's next (In general, we're starting in 1.1 and cruising straight through to 6.5.)
- Jot down the theorems and definitions that will be covered. This will leave you free to learn more about what they mean and how to *use* them, which is what *I* want to talk about.
- Attempt a few exercises, to see what you're up against.
- Budget some time to ask questions 1-on-1 (or in groups) in my office. While I am happy to answer a few homework questions, I *still* collect the homework at the beginning of class. *Right* before class (11-ish) is a popular time. If we get "too big," I will shift one or more office hours to a classroom.

After **Class:**
- Start the homework as soon as possible.
- Any exercise you can't do, start a whole new piece of paper and continue with the next exercise. *Don't spend too much time on a problem that's a challenge. Instead, write down a few ideas about it, and move on to the next problem on a fresh sheet of paper.*

Make-up test: I only do make-up tests for college-excused absences. If you're sick, you better see a doctor and have some documented proof.

Calculators: A scientific calculator (TI-30 II is available in bookstore) is required for this class. A graphing calculator is recommended but not required. (Homework problems requiring a graphing calculator may be done using an online grapher instead.) Unless otherwise specified in class, calculators are to be used only to calculate: add, subtract, multiply, divide, and calculate logs, roots, powers, trig functions and factorials. You will be required to show all other work on homework and tests. I will not give credit for answers given without work shown. Graphing calculators are not allowed on tests. Phones are not allowed on tests, even if they have a built-in calculator.

General Education Competencies: This course satisfies the following State GE categories: Critical Thinking, Technology, and Mathematics.

Learning Outcomes:
Solve selected algebraic and trigonometric problems.
Identify limits of Algebraic, Trigonometric, and Composite Functions
Solve for the derivatives of Algebraic, Trigonometry, and Composite Functions
Solve for the derivatives of selected functions.
Use the appropriate algorithm(s) (including product, quotient, and chain rules) to find derivatives of algebraic, trigonometric, and composite function.
Find derivatives of implicitly defined functions.
Use the first and second derivatives of functions to find extrema, points of inflection, sketch the graph of functions.
Set-up and solve applied problems selected by the instructor.
Find indefinite and definite integrals - Algebraic
Read, analyze, and apply to problems, written material related to the study of calculus
Write and speak clearly and logically and essays about topics related to calculus.
Demonstrate the ability to select and apply contemporary forms of technology to solve problems or compile information in the study of calculus.

Students with Disabilities: We *really* want *everyone* to have access to an education, here, and our Disability Access Services is one of the best. For any kind of needful accommodation, they are the people to talk to: http://www.aims.edu/student/das/.