SAMPLE COURSE SYLLABUS

Welcome to Introduction to Differential Calculus! This course is designed to introduce you to some fundamental concepts of single variable Calculus. All of our students play an important role in our educational mission. We hope that you will find this to be a useful, fundamental course for your future studies.

Instructor and Contact Information

Instructor: Klara Grodzinsky
Office Location and Phone: Skiles 232, 404-4397
Office Hours: Mondays-Thursdays 10-11 am, and by appointment
E-mail: klarag@math.gatech.edu

Course Websitses

Instructor's Web Page: https://people.math.gatech.edu/~klarag
Course Information: t-square.gatech.edu (*required*)
Textbook/Homework Access: http://www.mymathlab.com (*required*)
On-line Discussions: www.piazza.com (*highly recommended*)

Course Description and Learning Outcomes

Course Title: Introduction to Differential Calculus
Course Meeting Times: Lecture meets Monday-Thursday from 12:00-2:00 pm in CULC 129.
Text: Thomas, *Calclus: Early Transcendentals, 13th ed.* MyMathLab is required and contains an electronic version of the textbook. Access codes and registration information are available on our course T-square page. You can access our MyMathLab course at mymathlab.com. We will cover many of the topics in chapters 1-4.

The learning objectives for Introduction to Differential Calculus are as follows:
- Students will master basic Calculus concepts, such as limits, derivatives, and extrema.
- Knowledge of the above concepts will be exhibited graphically and algebraically.
- Students will be able to graph various types of functions using Calculus and algebraic properties.
- Calculus concepts will be used to solve applied physics, geometry, and optimization problems.

MyMathLab Course Information: We will be utilizing MyMathLab (MML) for homework through a joint code for the Thomas *Calculus* text and the Lay *Linear Algebra* text. In order to register, you will need our course id listed below.

MyMathLab Course ID: lastname0123

Important notes on MML:

- If you already have an account on MyMathLab using this combined textbook within the past 18 months, then you do not need to purchase a new code. Login to your account on MyMathLab, select the option to add a new course, and enter our course ID.

- If you already have a MyMathLab account that used either the Thomas or the Lay texbook in the past 18 months, but you were unable to add our course using the previous step, please send an email to gatechmath@yahoo.com and include the following information:

> Your First and Last Name
> The email address used to register for MML
> Your Login ID for MML
> Our course ID (listed above)

> You should receive a reply within 36 business hours from the Pearson support team regarding your account status. In the meantime, you can access our course using the "temporary access" option when registering. Please do not pay for a new code until you receive a reply from Pearson.

- If you do not have a MyMathLab account using the Thomas or Lay textbooks, or if your account is over 18 months old, you will need to purchase a new code for our course. Please refer to the registration document, located in the "Resources" section on t-square, to create your new account.

When signing up for MyMathLab, it will be immensely helpful to me (for grading purposes) if you will set your STUDENT ID to your USERID for the GT system (i.e., your T-square USERID, as in "gburdell3", etc).

MyMathLab comes with an entire electronic version of the textbook; it is your choice if you would also like to own the textbook in print. You may purchase a MyMathLab code either from the bookstore or on-line while registering at http://www.mymathlab.com. If you prefer to own a hardcopy of the text, the bookstore offers packages of MyMathLab combined with a loose-leaf or hardcover version of the Thomas textbook that is less expensive than purchasing the text and code separately.

PLEASE NOTE: GEORGIA TECH HAS A SPECIAL CODE PACKAGE THAT INCLUDES BOTH TEXTBOOKS. THIS CODE CAN ONLY BE PURCHASED THROUGH THE CAMPUS BOOKSTORES OR DIRECTLY FROM PEARSON. CODES PURCHASED BY OTHER VENDORS WILL NOT WORK! Possible ISBNs for this text are: 1269861298, 1269891596, 1256954721, 1269861328, 1269936069.

Course Organization

This course will consist of lectures meeting four times per week for two hour periods. You are required to attend all scheduled sessions at all times.

Course Requirements and Grading

HOMEWORK: Homework will be assigned on-line and will consist of exercise problems on MyMathLab. You are expected to understand **all** homework problems for the tests. Exercises on MyMathLab will be due every Sunday at 11:59 PM (except during class recesses or as announced in class).   The lowest homework grade will be dropped. **No late homework will be accepted**.

PARTICIPATION: Class participation will be based on your attendance in the. We will use TurningPoint

clickers to measure lecture attendance, beginning on the second week of classes. Clickers may be purchased from the Georgia Tech bookstore, or your may purchase a virtual clicker app through the Responseware software.

TESTS: We will have four 50-minute tests during the term. Tests will last for the first hour of the class period. Tests will be administered on the following days:
- **Test 1:** June 29
- **Test 2:** July 6
- **Test 3:** July 13
- **Test 4:** July 20

No books, notes, calculators, cell phones, or other electronic devices are allowed during the tests.

FINAL EXAM: The final exam will cover all course materials and will be administered on Tuesday, July 28, from 11:30am-2:20pm. All students must take the final examination.

Your final average will be computed as the highest of the following two options:

Option	Count all tests	Drop lowest test
Participation	5%	5%
Homework	10%	10%
Tests (15% each)	60%	45%
Final Exam	25%	40%

Letter grades will be determined based on the following intervals. ***Do not expect any deviation from the following scale:***
> **A**: 90% and higher, **B**: [80%, 90%), **C**: [70%, 80%), **D**: [60%, 70%), **F**: [0%, 60%).

Class Policies

Attendance: You are expected to come prepared and actively participate in every lecture session. In the event of an absence, you are responsible for all missed materials, assignments, and any additional announcements or schedule changes given in class.

Class disruptions of ANY kind will NOT be tolerated and may result in your removal from the classroom and/or loss of participation points for that day.

Please show courtesy to your fellow classmates and instructor by adhering to the following class rules:
- Turn off all laptops, cellular phones, i-pods and other electronic devices, unless you have a *documented* need to use such devices for note-taking, during class.
- Come to class on time and stay for the entire class period.
- Except during group work, please refrain from conversing with your fellow students.
- Put away any reading materials unrelated to the course.

Academic Dishonesty: All students are expected to comply with the Georgia Tech Honor Code (the honor code can be found at http://www.osi.gatech.edu/plugins/content/index.php?id=46). Any evidence of cheating

or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students. Cheating includes, but is not limited to:

- o Using an unapproved calculator, books, or any form of notes on quizzes or tests.
- o Copying directly from **any** source, including friends, classmates, tutors, internet sources (including Wolfram Alpha), or a solutions manual.
- o Allowing another person to copy your work.
- o Taking a test or quiz in someone else's name, or having someone else take a test or quiz in your name.
- o Asking for a regrade of a paper that has been altered from its original form.
- o Using someone else's clicker to gain attendance points or to take quizzes or tests for them, or asking someone else to use your clicker for any graded or attendance submission.

Regrading of Papers: If a problem on your test or quiz has been graded in error, you must submit a regrade request **in writing,** along with your paper, no more than *one week* after the papers have been returned in class. Should you wish to have your paper regraded, *do not change or add to the work on your paper*! If you must write on your returned paper, be sure to write in a different color ink and clearly indicate what you have added. A regrade request can only be submitted if you have done something CORRECT on your test that has been marked as incorrect. You MUST check your answers with the solutions BEFORE submitting such a request.

Make-Ups: In an emergency situation, I may allow a make-up quiz or test if I am notified prior to the exam and provided with a reasonable, **written** confirmation of your absence. Any make-ups must be completed before the corresponding quiz or test has been graded and returned to other students. If you will miss a test due to a university-sponsored event or athletics, please provide me with the official documentation in advance.

Students with Disabilities and/or in need of Special Accommodations: Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of classroom or testing accommodations, please make an appointment with the ADAPTS office to discuss the appropriate procedures. More information is available on their website, http://www.adapts.gatech.edu. Please also make an appointment with me to discuss your accommodation, if necessary.

Calculators: While you may need a scientific calculator for help with some of the homework problems, the use of calculators is NOT ALLOWED on in-class assessments, with the exception of devices provided by the instructor.

Announcements: I will frequently update the class pages with class information and materials. *You are responsible for obtaining any announcements or materials placed on my web page*, *MyMathLab, or T-square*. Though not required, it is also to your advantage to join our class page on Piazza (www.piazza.com) so you can view/participate in course-related discussions.

Additional Help: *Asking questions is a key to success!* Please stop by my office hours whenever you have questions. Free help is also available Monday-Thursday afternoons in the Math Lab, located on the second floor of Clough Commons.

MATH 1550, INTRODUCTION TO DIFFERENTIAL CALCULUS**SUMMER 2015**

Please note: *items on the syllabus and course schedule are subject to change. Any changes to the syllabus and/or course schedule will be relayed to the students in class and through e-mail.*

Important Dates throughout the term:

22 June -- First Day of Classes
29 June -- Test #1
3 July – No class
6 July-- Test #2
13 July -- Test #3
20 July -- Test #4
23 July -- Last Day of Classes
28 July -- Final Exam

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Tentative Course Schedule and Assessments

Please use this as an approximate class schedule; section coverage may change depending on class performance.

Date	*Section Coverage*	*Topics*
June 22	Sections A1, A3	Real Numbers, Absolute Value, Lines and Circles
June 23	Sections 1.1-1.3	Functions and Trigonometric Functions
June 24-25	Sections 1.5-1.6	Exponential, Logarithmic and Inverse Functions
June 29	Sections 2.2	Limits Test #1
June 30	Sections 2.4-2.5	One-sided limits Continuity
July 1	Section 2.6 Section 2.3	Infinite Limits Formal Definition of a Limit
July 2	Sections 2.1, 3.1 Section 3.2	Secant and Tangent Lines Definition of the Derivative
July 6	Section 3.4	Rates of Change Test #2
July 7	Section 3.3 Section 3.5	Power, Product, and Quotient Rules Derivatives of Trig Functions
July 8	Section 3.6 Sections 3.8-3.9	Chain Rule Derivatives of Inverse and Logarithmic Functions
July 9	Sections 3.7 Sections 3.10	Implicit Differentiation Related Rates
July 13	Sections 3.10	Related Rates Test #3
July 14	Section 3.11 Section 4.1	Differentials Extreme Values
July 15	Sections 4.2-4.4	The Mean Value Theorem First and Second Derivative Tests
July 16	Section 4.4	Curve Sketching
July 20	Section 4.6	Optimization Problems Test #4
July 21	Sections 4.6, 4.7	Optimization Problems Newton's Method
July 22	Section 4.8	Anti-derivatives
July 23	Section 5.4	The Fundamental Theorem of Calculus Review for Final Exam