MATH 2551 - Multivariable Calculus - Sample Syllabus
Fall 2014
Lecture: Room: Howey (Physics) L3 - Time: TTH 1:35pm – 2:55pm
Recitation (K1): Room: Skiles 154 - Time: MW 2:05pm – 2:55pm
Recitation (K2): Room: Skiles 170 - Time: MW 2:05pm – 2:55pm
Recitation (K3): Room: Skiles 202 - Time: MW 2:05pm – 2:55pm
Recitation (K4): Room: Skiles 256 - Time: MW 2:05pm – 2:55pm

Instructor: George Burdell   Office: Skiles 235a
Office Phone: 404-864-4311   Office Hours: T/TH 3:00pm – 4:30pm
Email: gpb@math.gatech.edu   or by appointment
Webpage: http://people.math.gatech.edu/~gpb6/teaching/math2551_F2014.html

Teaching Assistants:

Section (K1): Chen Xu   Office: Skiles 153
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Section (K2): Longmei Shu   Office: Skiles 153
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Section (K3): Yuze Zhang   Office: Skiles 140
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Section (K4): Yanxi Hou   Office: Skiles 149
Office Phone: 404-385-3839   Office Hours: Monday 1:00pm – 2:00pm
Email: yhou44@math.gatech.edu

Text: The following text is required for the course:

    Title: "Thomas' Calculus: Early Transcendentals"
    Publisher: Addison-Wesley (Pearson)
    Edition: 12th

For additional information about access to the e-version of the text and the version required
for the course see the flowchart here.

Prerequisite and Description: Prerequisites for the course are MATH 1502 with a *minimum grade* of D.

    Math 2401 is an introduction to multivariable calculus. Topics include: Linear approximation and Taylor's theorems, Lagrange multiples and constrained optimization, multiple integration and vector analysis including the theorems of Green, Gauss, and Stokes.

Topics Covered During the Semester:

Topic	Lectures
Vector Calculus, parametric curves and motion	7
Functions of several variables, visualization and partial differentiation	6
Functions of several variables, gradients, optimization, differentials	10
Double and triple integrals	10
Vector analysis	10

Learning outcomes: On successful completion of the course, students should be able to:

understand and demonstrate the basic theory of calculus of functions in several real variables

evaluate partial derivatives and multiple integrals; compute line integrals and surface integrals;

apply the knowledge to solve some practical problems, such as constrained optimization problems and other problems involving differentiation and integration of multivariable functions.

Attendance: Attendance is required for all lectures. The student who misses a class meeting is responsible for any assignments and/or announcements made. Office hours will not be utilized to re-teach material presented in class. However, questions to better understand the course are always welcome.

There will be no opportunities for make-up tests after the fact. **In the event of an absence due to travel representing Georgia Tech, such as an intercollegiate sports competition, you must notify the professor at least two weeks in advance to arrange an early test or other alternative**. Otherwise, such absences will be treated as personal.

Homework: This course will have daily homework assignments which will be administered through MyMathLab (MML). Please see the additional information provided about MML in the T-Square Resources section. Additional problems will be assigned directly from the textbook, but will not be collected for grading.

Quizzes: There will be weekly quizzes through out the semester.

Exams: This course will have four mid-term exams and a comprehensive final exam. The tentative exam dates for the course will take place on:

Exam Dates:

Exam 1	Wednesday, September 10, 2:05pm – 2:55pm
Exam 2	Wednesday, October 1, 2:05pm – 2:55pm
Exam 3	Wednesday, October 29, 2:05pm – 2:55pm
Exam 4	Wednesday, November 19, 2:05pm – 2:55pm
Final Exam	Thursday, December 11, 2:50pm – 5:40pm

Exam Re-Grading Policy: Exams will be returned in Recitation section and upon return you will have an opportunity to review your exam and its grading. If you disagree with the grading of your exam you are to notify your TA of the issue at the time of return, and the TA will collect your exam and bring it to me for consideration. If you take the exam when it is returned to you without registering a complaint regarding the grading, then your score is

set and no additional regrades will be considered for that exam. If you request a regrading of your exam, you may additionally arrange a meeting to discuss the regrading issue with me directly.

Calculators: No restrictions will be placed on the use of calculators that do elementary mathematics on the tests. **Calculators that can do calculus symbolically shall not be brought to tests**. No credit will be given on tests for a correct answer without the intermediate steps. Notes or "cheat sheets" will not be allowed on exams or quizzes.

Piazza: This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TA, and myself. Rather than emailing questions to the teaching staff, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com.

Find our class page at: https://piazza.com/gatech/fall2014/math2401k1k2k3k4/home.

Learning Disabilities: It is the right of any student with a certified learning disability to request necessary accommodation. Such requests must be made well in advance of the time that the accommodation is required and a letter of documentation from the ADAPTS office must be presented at the time of any request.

Academic Honesty: It is expected that all students are aware of their individual responsibilities under the Georgia Tech Academic Honor Code, which will be strictly adhered to in this class. **Any violations must be reported directly to the Dean of Students.**

Grades: Grades will be based upon attendance, quizzes, mid-term exams, the final exam, and homework. Course grades will be assigned from the *maximum* of the following formulas:

	Method 1	Method 2	Method 3
Homework	10%	10%	10%
Quizzes	20%	15%	10%
Midterm Exams	40%	35%	35%
Final Exam	30%	40%	45%

The usual ten-point scale will be used (A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59), however, if necessary, adjustments will be made to arrive at a standard grade distribution for the course. On an individual basis, significant improvement over the semester will be taken into account. One mid-term exam grade, two quiz grades, and a to be announced number of homework will be dropped when computing your grade. This is the only mechanism for coping with personal events such as illness and family emergencies.

Additional Resources: In addition to the textbook, lectures, and office hours there are other resources available that might be of use for you during the course. All Georgia Tech students are eligible for 1-on-1 tutoring, see the website associated with the Office of Success Programs. There is also the Math Lab in the School of Mathematics where tutoring services are provided.

Important Dates for Fall 2014:

August 18	First day of classes
August 22	Last day to register
September 1	Labor Day - No Class
October 11-14	Fall Student Recess - No Class
October 10	Last day to drop or withdraw with a grade of "W"
October 26	Last day to withdraw from school with a grade of "W"
November 27-28	Thanksgiving Break - No Class
December 5	Last day of classes