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Class Syllabus
MTH 142, Calculus I
Section 04, LDB 402, 11 AM, MoTuWeTh
Dr. Ken W. Smith
Fall 2007

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An exciting course!

Most of the essential concepts of **algebra** and **geometry** were known to the Greeks over two thousand years ago and were later modified by Arab and Chinese civilizations over a thousand years ago. *That* material is the typical subject of a **high school** math curriculum. But the concepts of **calculus**, appearing in the seventeenth century, revolutionized society and were the foundations for the modern industrial and technological revolutions.

This course will examine mathematical concepts which developed during the 1600's and 1700's; concepts which *created* modern science and *changed* the world! As your instructor, I will <u>attempt</u> to show you how useful (and exciting) this material is! We will focus on understanding and applying the major concepts of **differential calculus** and **integral calculus**.

No magic!

We will stress the *understanding* of the class material. We will avoid "magic", that is, we will (try to) avoid mechanical memorized formulae. There is very little to "memorize" in this class – if you *understand* the concepts, you do not need to *memorize*!

Here are details about the mechanics of this course.

Textbook: *Calculus* (Early Transcendentals), by Thomas, 11th edition, 2006.
(We will cover chapters 2 through 5. Chapter 1 and Appendix B3 should be reviewed.)

Prerequisites: Precalculus *or* the equivalent.
A *good* understanding of both algebra and trigonometry are essential for this course.

Contact information

My e-mail address is <u>KenWSmith@shsu.edu</u>. Please feel free to contact me by email. My office is LDB 420A, 294-1563.

Office Hours

My formal office hours are: **immediately after class, MTWR** and **11-12 on Friday**. (You may drop into LDB 420A during those times. If these hours are inconvenient, feel free to make an appointment for another time.)

On Fridays, if there is enough interest, we may move to a nearby classroom and review homework problems.)

We will use both the Blackboard system and my webpage at <u>http://www.shsu.edu/~kws006</u>

Class expectations

Please treat this class as you would other *professional* obligations. If you are unable to attend class, I expect you to contact me as soon as possible (by email or phone) and let me know you will absent. (Usually this means you will notify me *before* you miss class.) If you notify me before you miss class, I will make a note of that in my gradebook (with an *N*, for "notify".)

Assignments

There will be **daily reading assignments**, along with **daily exercises** to work. The daily exercises are usually *not* collected, but it is assumed that you have worked most of them before the next class. (You should bring this work to class.) For most students, these readings require *about* 90 minutes of work between class sessions.

There is a **weekly assignment**, worth ten points, which *is* collected. On the weekly assignment, the clarity and presentation of your work is *very* important. Each assignment problem should be done on a separate sheet, with work clearly shown and English sentences explaining the process. (Assume the audience for your writing is a colleague in the class who does not understand the recent material.) Your writing should communicate the techniques involved in the problem.

On the assignments I will grade for both accuracy and style. You may receive or lose **style points** (+/- 2.5 points). Both neatness and correct English (grammar and exposition) are considered in evaluating style points.

Weekly assignments are designed to develop understanding. They may require a fair amount of thinking and "meditating" on the subject. Please set aside enough time to do these assignments well! (I will *not* answer questions on the assignments on the day they are due. However, I will set aside office hour time on Friday afternoons, 11 AM-noon, to discuss upcoming assignment problems.)

Quizzes

There will be a short quiz every day (or *almost* every day.) Most quizzes are 5-points. Occasionally there will be a "double-quiz", worth ten points. (The "double-quizzes" will be announced. The first double-quiz is Thursday, Aug 31.)

There will be at least 44 quizzes. The quiz grade total is 200 (= 40 x 5), so there is some room for extra-credit. (In my gradebook I mark every tenth or eleventh quiz as "extra-credit".) This allows a student with one or two legitimate absences to ``catch up" on their grades.

I do not, as a rule, allow make-ups on quizzes or other work. *If* you have missed four quizzes, <u>with an *N* grade</u>, and *then* have an emergency, such as a long illness, I am willing to discuss a make-up on the *additional* missed quizzes.

Exams

There is one mini-exam (worth 50 points) and four regular exams; the first three regular exams are worth 100 points and will be on the following dates: Tuesday, **September 25**, Thursday, **October 25**, and Tuesday, **November 20**. The fourth exam is the final exam. It is on **Wednesday, December 12**, 11 AM – 1 PM. It is worth 100 to 300 points. (300 points if your final grade improved, 100 points if it did not.)

Miscellanea

Calculators may be allowed on most homework and quizzes. Some quizzes and many exam problems will *not* allow calculators. (Please read the instructions!) *Calculators will **not** be allowed on the Final Exam.*

On assignments, quizzes and exams, your work and your communication of your work are important.

Grades

Grades are based on percentages -- roughly 90 percent and up is an A, 80% and up is a B, 70% and up is C. 65% and up is a D. A grade below 65% is failing (F). There will be 650 points available before the final exam, 750 or 950 points in all.

There will be some opportunities to get more than "100 percent" on assignments, quizzes and exams. *Students who have a grade above 100 percent on the last day of class will be excused from the final exam.*

Honors credit is available for this class. Students interested in earning honors credit should contact me as soon as possible.

Collaboration & Plagiarism

On assignments, homework, or "take home" quizzes, it is acceptable to receive tutoring from the instructor. You are also *encouraged* to discuss the problems with other students. However, anything you turn in must be in *your* own words, with *your* understanding of the material. To turn in material that is written in someone else's words is *plagiarism.*

Of course, on in-class exams or quizzes, all the work you turn in must be your own, without any aid from anyone else. Giving or receiving aid on in-class quizzes and exams will be considered *plagiarism* ("cheating.")

In this class, the penalties for plagiarism will include *at least* a zero grade on the submitted material and *most likely* a failing (F) grade in the course with a referral to the Office of Student Life.

Writing

Mathematicians should write well. Please don't abbreviate (unless we have agreed on some common abbreviations). Please write with good grammar, in complete sentences. Spell correctly. Write so that others will find your work easy to read.

I will try to help you improve your math writing.

Final comment

Please feel free to talk to me. I want you to enjoy this class *and* to do well!

Dr. Ken W. Smith (kenwsmith@shsu.edu)