

Math 112-006: Calculus I

Fall 2008

Syllabus

Professor: Erin Chamberlain, 263 TMCB, 422-4046, chamberlain@math.byu.edu

Office Hours: Monday, Wednesday: 11-12, Tuesday, Thursday: 4-5 pm, or by appointment

Lecture: Daily 3-3:50 in 116 TMCB

TA: Kevin Powell, powells4ever@gmail.com

Office Hours: Monday, Wednesday, and Friday: 10-11, Tuesday: 4-5, Thursday: 11-12

Text: *Calculus, 6E, Volume I* by James Stewart

Course Webpage: <http://www.math.byu.edu/chamberlain/> and <http://mathonline.byu.edu>

New announcements, copies of course materials, and other information will be posted on the course web page and on the online course webpage at <http://mathonline.byu.edu>.

Course Objectives:

1. Development of general intellectual and mathematical ability, including
 - a. The ability to learn complex, new concepts independently.
 - b. An ability to recognize and correct errors in your and others' work.
 - c. An ability to write arguments and mathematical computations correctly and accurately.
 - d. A mastery of basic logical reasoning and an ability to write simple proofs.
 - e. The ability and confidence to attack and solve an unfamiliar problem, and the discipline to keep working on a problem until you solve it.
2. Mastery of the core topics of Math 112. The list of core topics is roughly the material in the first five chapters of the text.

Preparation: The prerequisites for this class are college algebra or precalculus (Math 110) and trigonometry (Math 111). If you have not had these courses either here or elsewhere, or if you did poorly in those courses (C or worse), you should probably take or retake them before taking this course.

Pretest: We have a (required) pretest to help you decide if you are adequately prepared to take calculus.

The pretest and a review for it can be found at the site <http://mathonline.byu.edu>. Log in with your Route-Y id and password. Click on *Pretests and placement exams*. Scroll down to your Math 112 section. The review is one link, and the exam the other. **Take care to select the 112 exam – not 119 or 110.**

When you take the pretest, you will notice at the bottom of the page a "save without submitting" button. Select this after each answer. If you lose your internet connection, you can come back and finish the quiz later. Select "submit all" when you are done with the exam.

You must finish the pretest by Saturday, September 13 at 11:00 pm. You are allowed 2 chances to pass. If your score is below 75% then you are not prepared for calculus. Talk to me or the TA about your options, and what you can do to better prepare yourself.

The pretest will be worth the equivalent of 2 quizzes.

Preparation Time: Well prepared students should expect to spend a minimum of two hours out of class for every hour they spend in class. This adds up to a minimum of 10 hours per week on homework and studying. A minimal time commitment is likely to lead to an average grade (B-/C+ or lower). More time will be required to achieve excellence.

Reading: We do not have enough time to cover all of the reading material in class before the homework is due. You are expected to read the book and carefully study the examples yourself before the lecture on that material. You get more learning for your money if you read first and ask questions in class, than if I waste all of your class time reading the book to you or lecturing to you about things you could read. We will instead try to answer your questions, help you see why things are important, and fill in places that the book does not make clear.

Assignments: Almost every homework assignment has an online component as well as a paper component. The online component can be accessed at <http://mathonline.byu.edu> on our class webpage and is due by 11pm on the due date. The paper components will generally be collected in class twice a week on Mondays and Wednesdays. You can turn in the paper homework for half credit if you turn it in within a week of the due date.

The lowest two homework scores will not be figured into your final grade. This accommodates for minor illnesses or other disruptions to your regular schedule that might prevent you from turning an assignment in on time.

Solutions should be clearly labeled and in order. The style of your written solutions should be very much like that of a text book example; solutions should contain enough explanation so that one of your classmates would be able to easily understand what you have done. Answers given without work will receive no credit. You are welcome to study together and work together on homework assignments. However, each student must submit their own assignments. Everything you turn in should be in your own words and you should thoroughly understand everything you write down.

Homework should be done on blank white paper, graph paper, or lined paper. Paper torn from a spiral notebook will not be accepted.

Recitation Sections: The recitation sections on Tuesdays and Fridays are designed to help you better understand the material covered in the lectures. You will learn much more if you try to do the day's homework assignment before the recitation session. This time will be used for problem sessions, weekly quizzes, and working on group projects.

Quizzes: There will be weekly quizzes each Friday. These will be short tests of the material from the homework. The lowest quiz score will not be figured into your grade.

Exams: There will be five midterm exams during the semester. The dates will be posted on the class schedule and announced in class the week before the exam. Makeup exams will only be given for extenuating circumstances. Makeup exams must be scheduled before the regular exam date, which means you must let me know in advance, so we can schedule the exam. The lowest exam score will not be figured into your grade.

Cheating: I highly suggest you study and work together on homework and for tests, but all of your work must be written by you in your own words. We will not tolerate any cooperation or other cheating on quizzes or exams – it is both dishonest and unfair to other members of the class. I fully support all of the University’s penalties for cheating and plagiarism, which are generally an unforgivable F in the course and possible suspension from the university, as well as prosecution for any violations of the law.

Nevertheless, I believe in repentance; namely, if you have cheated, and if you, feeling remorse, tell me before you are caught, I will arrange with you some way to make restitution without suffering the above-named penalties. If you are sure that you are going to fail unless you cheat, come to me, and we will arrange an honest alternative.

Grading:

25%	Assignments and Quizzes
50 %	4 Midterm Exams
25 %	Final Exam

Common Final Exam and Grades: A common final exam is given to all students in all sections of Math 112. This assists the Mathematics Department to fairly assess students’ knowledge of calculus and to assign grades fairly. The percentile ranking of each student relative to all students in all sections will be computed based on the final exam scores. Using this information the Calculus Committee will compute an average grade for each section. It is department policy that the average grade for each section should match its average grade on the common final exam. No calculators, books, or notes will be permitted during the final exam. The exam is scheduled for **Monday, Dec. 15 at 7-10am.**

Math Lab: There is a free math tutoring center in 159 TMCB. Tutors are there to help students in Math 112 as well as other classes, and there is also a computer lab open to anyone with a Route-Y id. This is a great resource. See <http://math.byu.edu/mathlab> for more information.

Preventing Sexual Harassment: BYU’s policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter sexual harassment, gender-based discrimination, or other inappropriate behavior, please talk to your professor, contact the Equal Employment Office at 422-5895 or 367-5689, or contact the Honor Code Office at 422-2847.

Students with Disabilities: BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your

success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.