

Math 112-23: Honors Calculus I

Fall 2009

Syllabus

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

Office Hours: Monday – Friday 1-2pm

Lecture: Daily 12-12:50 in 116 TMCB

TA: Chelsea Johnson, chelseajohnson07@gmail.com

Office Hours: TBA

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. Use your Route Y id to log onto the mathonline web page. The enrollment key to log onto our course is “chamberlain”.

Prerequisites:

Math 110 and 111 or the equivalent. This includes College Algebra and Trigonometry, but could also be satisfied with a good course in PreCalculus. Students will also be required to take a pretest in order to exhibit competency in these areas. (See below.)

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.
 - f. 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. A more detailed list of these objectives with a list of how the assigned homework problems contribute to these goals is posted at http://math.byu.edu/mathwiki/index.php/Math_112_Calculus_Learning_Goals

Pretest:

Successful completion of Math 112 requires a solid background in both College Algebra and Trigonometry. Students are required to take a pretest on these topics. While the pretest is worth 1 quiz score, it is also required before we will grade the final. A pretest review 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 the Math 112 section. The review is one link and the exam the other. When you are ready to take the pretest, make sure you select the correct link! There are 3 pretests on the site.

While 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 will need to finish the pretest before Saturday, September 12 at 11:55pm. You are allowed 2 chances to pass. If your score is below 75% then you do not have the necessary skills to succeed in Calculus. Talk to me about your options, and what you can do to better prepare yourself.

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 12pm on the due date (i.e., right before class). The paper components will generally be collected in class twice a week on Tuesdays and Thursdays. Late homework will not be accepted.

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. Sloppy or incomplete solutions will not receive full credit, and 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 one side of blank white paper, graph paper, or lined paper. Paper torn from a spiral notebook will not be accepted. When you turn your assignment in at the end of class, fold the paper in half lengthwise, and write your name and assignment number on the front of the “book.”

You are also required to keep an online homework journal where you will keep copies of the online assignments and your solutions to those problems. We will check these journals periodically throughout the semester.

Recitation Sections: The recitation sections on Tuesdays and Thursdays 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. Each person will be given four points per problem that is correctly presented during these problem sessions. Each person should present at least three problems during the semester. These points will count as an extra homework assignment.

Quizzes: There will be weekly quizzes each Tuesday. 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 three 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.

Cheating: I highly suggest you study and work together on homework, 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 E 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:

30%	Assignments, Projects and Quizzes
45 %	3 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 **Tuesday, Dec. 15 from 7-10pm**. The location will be announced later.

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.