

## Brief Calculus, Section 003

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Mathematics 714

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*“A mathematician, like a painter or poet, is a maker of patterns. If his patterns are more permanent than theirs, it is because they are made with ideas.”*

- G. H. Hardy

### About the Class

This course is designed to teach you the basic concepts of single-variable calculus. Calculus lies at the foundation of much of modern science and engineering. You will learn to think in new ways about real-world relationships, and you will apply the concepts you've learned to problems and applications in a variety of disciplines.

### Attendance & Punctuality

Attendance will not be factored into your grade. However, I expect every student to attend every day of class, on time. **If you are more than fifteen minutes late to class, don't bother showing up.** Except for emergencies, no student is allowed to leave the classroom before the end of the period. **Students with more than 3 absences may be administratively dropped from the class.**

### Classroom Conduct

**Read the relevant sections of the textbook before coming to class.** Bring your calculator (TI 82, 83, 84, 85 or 86) to each and every class period. (I will be using a TI 84 Plus.)

**No outside reading or conversations will be permitted during class time;** if you feel that your conversation or reading is more important than what the class is doing, don't come to class. **Turn off all cell phones during class.** If you have a question about what is going on in class, please ask me, not your neighbors. **If your question is not about class, save it until class is over.**

### Homework and Quizzes

In order to learn mathematics, you must practice it. By working through math problems, you discover the subtleties of definitions, if and when rules have exceptions, and how to handle new and challenging problems. In addition, both quizzes and homework give the instructor and the student feedback about their understanding of the material and their performance in the class. **Homework and quizzes will comprise approximately 17 percent of your grade in this class.**

Homework will be assigned regularly. Read the relevant sections of the textbook and try your best to answer each question. **I will answer questions about the homework only on the day before it**

**is due.** Homework must be handed in at the beginning of class. Quizzes will be given regularly, may be announced or unannounced, and may be given at any time during the class period.

Selected problems from the homework will be graded; each problem graded will be worth a total of 3 points. **In order to receive full marks for a problem, the correct answer and all intermediate steps must be shown.** Each quiz question will also be worth a total of 3 points. Your homework and quiz grade will be calculated using the following formula, up to a maximum of 100 points:

$$\frac{\text{(Your total score for all homework and quizzes)}}{\text{(Total points for homework and quizzes – 10\% of the total points)}} * 100$$

Your homework should be written neatly on 8 ½ by 11 inch loose leaf paper – **do not rip paper out of a spiral notebook.** If there are multiple sheets, **staple** them together. Failure to comply with these rules will result in a loss of points. Write both your name and the textbook section number on each page of your homework, and write down the question number of each problem before you answer it. Answer the problems in order, and show all the work that goes into each answer. Circle or box your final answer. **Illegible problems will not be graded.**

**Late homework will not be accepted under any circumstances, and makeup quizzes will not be given.** If you know that you will be absent from class, you must hand the homework in early to receive credit.

### Exams

In addition to the final exam, three in-class exams will be administered. In-class exams are tentatively scheduled for February 8, March 7, and April 23. The University has scheduled the final exam on Wednesday, May 14 at 11:00 AM. **Barring verifiable extenuating circumstances, no makeup exams will be administered.** Makeups will be given at my discretion.

The exams are designed to test your understanding of the concepts covered in class, not your ability to replicate homework assignments. Thus, the questions on the exams may differ in format and presentation from those you have seen in the homework.

If you are dissatisfied with your grade on an exam, you must discuss it with me during my office hours (not during class time), **within one week** of receiving the graded exam.

### Final Grade

The total number of points available on tests and homework/quizzes is 600. Each in-class test will be worth 100 points, homework/quizzes will be worth 100 points, and the final exam will be worth 200 points.

Grades will be no lower than those set forth in the following table:

$540 \leq \text{points}$	90% to 100%	A
$480 \leq \text{points} \leq 539$	80% to 89%	B
$420 \leq \text{points} \leq 479$	70% to 79%	C
$360 \leq \text{points} \leq 419$	60% to 69%	D
$0 \leq \text{points} \leq 359$	0% to 59%	E

### Expectations

I will try to explain the topics your text covers, and I will assign practice problems in an effort to guide you through the material. However, **your grade is your responsibility**. It is your responsibility to read the text, to make sure that you understand the topics covered, and to ask questions, in class or during office hours, about things you do not understand. Likewise, it is your responsibility to know what homework has been assigned and when it is due. **No extra credit will be given in this class.** This means you must work towards the grade you want from day one, and on every assignment. Finally, the workload in this course is fairly heavy; expect to work **2-4 hours** outside of class for each hour in class.

### Office Hours

My office hours are on Friday from 3-3:50, and my office is Mathematics 714 (on the seventh floor, to your left as you exit the elevator). On Wednesday from 1-1:50, I will be tutoring in Mathematics East 149. Tutoring is available at other times in this location; for specifics, go to <http://math.arizona.edu/tutoring/currentsemester/math110.html>.