MATH 1260 - AP CALCULUS II

Instructor: Adam Boocher
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Office: LCB 112
Website: We will be use Canvas with material duplicated at: `http://www.math.utah.edu/~boocher/1260/`

	Class:	MWF	9:40 - 10:30	LCB 222
		T	9:40 - 10:30	LCB 215

Office Hours: to be held in my office, LCB 112. Times to be determined.
Textbook: Varberg, Purcell and Rigdon *Calculus with Differential Equations*
Important Dates:

Midterm 1	October 9	In class
Midterm 2	November 20	In class
Final	December 18	8:00-10:00 am

(Exam dates are tentative at the moment)

Description: This course will cover multi-variable calculus. We will begin by learning how to describe shapes (lines, curves, surfaces, . . .) living in 3-dimensional space, and using the language of vectors. Visualizing these concepts is often the hardest part of the course - but everything gets better with practice. The course will then turn to differential and integral calculus of several variables and end with the theorems of Green and Stokes, two of the most beautiful results in vector calculus. This is an honors course, and as such we will go more in depth with topics, and focus of some of the underlying ideas. My goal is to introduce key notions in mathematics that will crop up in later courses. Although most of our work will focus on curves and surfaces (i.e. 1-dimensional and 2-dimensional objects), we'll learn how these ideas generalize to higher dimensions.

Grading Policy: Your grade will be determined based on
- Homework and graded worksheets 20%
- Weekly quizzes 20%
- Midterm 1 15%
- Midterm 2 20%
- Final Exam 25%

For exams, you are allowed a 3×5 notecard for notes (both sides), but no calculators. Late homework will not be accepted, and in general we won't hold make-up quizzes, as it is important to keep moving forward in the course. However, I will drop the lowest quiz and homework grades, and special circumstances will be considered on a case by case basis. If you know you will miss a quiz/homework/exam, please contact me *in advance* so plans can be arranged.

Strategies for Success: As an honors course, this class will be challenging, so it's important to keep up with the material as we learn it. Homework is a significant part of your grade. This reflects its importance in learning. We will have weekly assignments on WeBWorK (don't ask me about the capitaliziation...) which are meant to be straightforward checks of your comprehension. In addition, we will have more substantial problems on Worksheets every week or two. These will be a mix of harder problems, introduction to some theoretical math (including some proofs!), and will be carefully graded. Working in a study group is strongly encouraged - and you are encouraged to submit your write-ups as a group. If you work with the same group throughout the semester, I'll ask you to take turns writing up the solutions.

Finally, I find that daily practice is the best pathway to success in a number of areas - consider music, meditation, yoga, etc. Consider making a commitment to think about mathematics on your own each day. Most days this will mean reading the textbook or working on homework. But if you find yourself busy with life's other demands, even five minutes of thinking "What was it we did in class the other day?" will do wonders.

I also highly recommend the book *How to Ace the Rest of Calculus* It's the closest thing to a math comic book, and its conversational flavor is an excellent complement to the more serious textbook above. An important part of mathematics is building intuition and comfort with abstract concepts. This book can help with that.

Academic Integrity: All University of Utah policies regarding ethics and honorable behavior apply to this course.

Resources for you:

1.) ADA: The University of Utah is fully committed to affirmative action and to its policies of nondiscrimination and equal opportunity in all programs, activities, services, and employment without regard to race, color, national origin, sex, age, disability, gender identity/expression, religion, sexual orientation, and status as a protected veteran. The University seeks to provide equal access to its programs, services, and activities for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to the Universitys Title IX/ADA/Section 504 Coordinator: Director, Office of Equal Opportunity and Affirmative Action, 201 S Presidents Cr., Rm 135, Salt Lake City, UT 84112. 801-581-8365 (V/TDD).

2.) Wellness Center: Are you concerned about stress, sleep difficulties, anxiety, depression, cultural differences, relationship difficulties, balancing work and school, or finances? Would you like to perform better in class, help a friend in distress, or learn more about physical activity or nutrition? Contact the Center for Student Wellness; `wellness@sa.utah.edu`; `www.wellness.utah.edu`; 801-581-7776.

3.) Veterans: If you are a student veteran, I want you to know that the U of Utah has a Veterans Support Center on campus. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: `http://veteranscenter.utah.edu/`. Please also let me know if you need any additional support in this class for any reason.

4.) LGBTQ: If you are a member of the LGBTQ community, I want you to know that my classroom is a safe zone. Additionally, please know that the U of Utah has an LGBT Resource Center on campus. You can visit their website to find information about the support they can offer, a list of events through the center and links to additional resources: `http://lgbt.utah.edu/`. Please also let me know if you need any additional support in this class for any reason.

5.) Mathcenter: There is free tutoring available at the Math Tutoring Center, located in room 155 of the T. Benny Rushing Mathematics Center (adjacent to the LCB and JWB). To let the tutors know that you need help, simply put up one of the flags. If you find that you'd prefer more personalized attention than our tutoring center can give, try the ASUU Tutoring Center (7 dollars an hour), 330 SSB, or pick up a private tutor list from the math department office (233 JWB). For more information look here: `http://www.math.utah.edu/ugrad/mathcenter.html`.