Course Description: MATH 377 is an in-depth exploration of some of the fundamental concepts of calculus. In particular, we will closely study the properties of real numbers and the concepts of limit and convergence. Time permitting, we will also explore the fundamentals of derivatives and series.

Text: The text we will be using is Basic Real Analysis, James S. Howland.

Class Times: The class will meet MW 10:50-12:30 in MS 321.

Grading: There will be homework assignments due every Monday, two semester exams, a cumulative final exam, and various in-class activities including regular student presentations. Exams must be taken in pencil, with points taken off for using pen. Exams may only be made up in advance, or afterwards only with the proper documentation justifying your absence.

Your grade will be calculated by the following distribution:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
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<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>2 Exams</td>
<td>35%</td>
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Homework Expectations and Policies: The grading of your homework will be based on both the clarity of the solutions as well as their accuracy, as the communication of your ideas is an essential part of mathematics. It is often difficult to even gauge the correctness of a solution if it has not been clearly communicated. Thus, your solutions must be clearly expressed using correct terminology and precise language (which will in turn help you to better understand the concepts). While you may collaborate with classmates on homework, you must write up your own solutions in your own words. Simp | ly copying another’s work (or allowing another to copy your work) is considered cheating and is not acceptable. This includes solutions found on the internet or anywhere else. The punishment will be severe if you are caught cheating. It is not worth it.

Homework is due by the time I have left for the day on Wednesday (~6:10) and each late problem will be downgraded by 0.5 points out of 10 for each day it is late. Sometimes you will be allowed rewrites on some or all of the homework problems.

Presentations: I will assign some problems as “Presentation problems” regularly, and we (meaning you) will present every or almost every class period (1-2 problems per class). Some other potential problems to present will also be certain proofs (that I will select) from the text. Presenters will be solicited on a volunteer basis, with precedence given to those who have presented less, and volunteered (but not been selected) more.

You should think of these presentations as practice for the homework you will hand in. The presentations will be graded on a 5-point scale, based largely on effort but also demonstrated understanding (which will include how clearly you present your solution and how well you respond to questions). When presenting, keep in mind that your audience is not me, your instructor. Your audience is your classmates, and so your presentations must be aimed toward your peers, to ensure that they understand and are convinced of any claims you are making. If you make a mistake, you can either attempt to fix the problem on the spot (with the help of the audience if you like), or you can try again the next class. Either way, don’t stress out about it!
Everyone makes mistakes, and it’s a sign that learning is taking place. I’ve made plenty of mistakes in my career.

As an audience member, you will be expected to follow along with your peers’ presentations, and it is certainly in your best interests to do so since you will be responsible for those concepts. Also, I expect you to be supportive of your classmates when they are at the board presenting. We are all in this together, and so attempting to boost your own standing by putting others down will not be met with approval. However, questions and other constructive contributions are encouraged and included in your participation grade as noted below. Do not feel embarrassed to ask a question: chances are that if you have a particular question, then someone else in the class has a similar or even identical one. Note: once a classmate has begun his or her presentation, we must follow along with the direction in which (s)he is going and not attempt to direct him or her toward alternative solutions.

**Participation Grade:** Your class participation will be graded. The components of this grade are, in weighted order:

1. Oral presentations of problems – this includes the scores you received weighted by the frequency of presentation (40%)
2. Your participation in working on in-class activities (40%)
3. Your feedback on other students’ presentations (20%)

Clearly, none of the above components can be fulfilled without regular attendance, and absences will adversely affect the class participation portion of the final grade.

**Office Hour Etiquette:** I will always be happy to answer your questions in office hours. However, you must come prepared. In other words, you should have read over your notes and the textbook and already attempted the homework.

**Attendance and Effort Expectations:** Although I will not take attendance, I expect you to attend class—you are responsible for all notes, announcements, etc. that are given during class time. You should take the following steps if you miss a class:

- Contact one of your classmates so that you can find out what you have missed and get the notes.
- Read over those notes and the sections from the book that you have missed.
- Attempt the homework on that section.
- Come to see me to discuss any points on which you are still stuck.

While I am more than happy to aid you in understanding what you have missed, you should not expect that I will recreate the lecture for you in office hours. You should thus make sure you have taken the above steps before coming.

The general rule for a college course is that you as the student are expected to put in two hours of study outside of class for every credit hour. Thus, I expect that you will be putting in approximately 8 hours of work outside of class each week. If you find you are having problems and not understanding the material, the first question you should ask yourself is, “Am I putting in my 8 hours?”

A big part of being a math major is learning how to think, and then communicating that thought
process. This involves many attempts with many false starts, and often long hours on one problem. Therefore, you should consider this process to be as much a goal of the course as is simply learning the topics. You will often find these moments to be your most stimulating, rewarding, and satisfying (while simultaneously your most frustrating!).

Miscellaneous: Please make good use of my office hours. I have no rules or restrictions, except that you avoid behaviors that are disrespectful to me or to your classmates. This includes, but is not limited to, arriving late, talking while I’m talking, allowing your cell phone to ring in class, texting while in class, listening to head phones, etc.

University Policies:

1. You must take the final examination at the time specified on the CCSU website:
   Wednesday May 11, 11:00 am – 1:00 pm.

2. Please contact me privately to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share. I will need a copy of the accommodation letter from Student Disability Services at least two days before the accommodation is needed in order to arrange your class accommodations. Contact Student Disability Services, room 101, Willard Hall if you are not already registered with them. Student Disability Services maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty. Note my contact information given on the first page.

3. In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (1080 AM) or call (860) 832-3333 for the “general snow message.” You can also check on the main CCSU website under “Cancellations and Delays”.

4. The last day to withdraw from a course is Monday, April 18. Approvals for withdrawal are not required; however, it is strongly recommended that students consult with their academic advisors prior to deciding to withdraw. Cessation of attendance, notice to the instructor, or telephone calls to the Enrollment Center are not considered official notice of a student’s intention to drop the course.

   After April 18 withdrawals are allowed only under extenuating circumstances and require approval of the course instructor, department chair and dean of the School of Arts and Sciences. Poor academic performance is not considered an extenuating circumstance.

5. You are responsible for understanding and abiding by the University’s policy on academic integrity. Information on the policy may be found at http://www.ccsu.edu/AcademicIntegrity/. This policy is rigorously enforced by the Department of Mathematical Sciences.