Math 3283W meets MWF at 11:15am-12:05pm in Fraser 102. You also have sessions with your Teaching Assistants on T/Th at either 10:10 or 11:15.

Instructor. Prof. Jonathan Rogness
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Course Webpage: http://www.math.umn.edu/~rogness/math3283w/

The fastest, most reliable way to reach me is via email. Occasionally I get a deluge of email, but anything with "3283" in the subject line will get tagged as a high priority message.

Please note: I have two different offices on campus. My "department office" is Vincent 431, and I am rarely there. My regular office is in the Vincent 4 suite of MathCEP offices. Unless announced otherwise, office hours will be held in Vincent 4. There is generally a student worker at the desk just inside the door who can point you in my direction.

Course Description. Math 3283W is a "bridge" course between lower division mathematics courses and upper division proof-oriented ones. The specific material chosen by our department for its bridge course is a careful study of sequences and series, but the real goal of the course is to make you comfortable with the techniques and language of mathematical writing and proof. Sequences and series are important foundations for the branch of mathematics known as "Analysis" – hence our use of an Analysis textbook. But the heart of any analysis course out of this text would be the chapters on differentiation and integration, and we won't cover those chapters at all.

We will begin with Chapters 1 through 3, which contain important background material for any upper division course in this department, from Analysis to Abstract Algebra. Sequences and Series are covered in Chapters 4 and 8. Time permitting, we will also discuss parts of Chapter 5 before the semester ends.

Textbook. *Analysis: With an Introduction to Proof*, Fourth Edition, by Steven R. Lay. (**Required**)

Homework. During most weeks you will be assigned both *skills problems* and *writing exercises*:

- *Skills Problems* (Typically 8-12 points per week.) These problems will be assigned each week and are due on Tuesday at the beginning of class. They will be graded and returned to you a week later. You should leave space between problems, cut off any "frizzies" on the side of the paper, and staple your packet, in order to promote a more harmonious universe and maintain the sanity of your TAs. If these conditions are not met the TAs may deduct a point. The skills problems are the "regular" homework problems, as opposed to the writing exercises which satisfy the writing intensive part of the course. However, for full credit you should still include all steps, organize your work and explain your reasoning.

- *Writing Exercises* (Typically 7-14 points per week.) Most weeks a selection of writing exercises will be posted on the website. One or more of these will form the basis for an **in-class writing quiz** at the beginning of class on Thursday. (In some cases the problems may in fact be identical; in other cases there may be slight changes. Instead of proving something for n sets, for example, I may ask you to do the proof for three sets.) These quizzes will be returned to you on the following Tuesday. If you choose, you can rewrite your solution and hand it back in two days later, at the beginning of class on Thursday; your rewrite score (whether higher or lower) will replace your original score. **You are limited to three rewrites of writing quizzes throughout the semester.** If you are absent on Thursday, you can make arrangements with your TA to take a make-up quiz, but *this counts as one of your three rewrites.* The grading scheme for writing exercises is posted on the course webpage. Please read it carefully.

  Tentative dates of in-class writing quizzes: 9/13, 9/20, 9/27, 10/11, 10/18, 10/25, 11/1, 11/15, 11/29.

- *Take-Home Writing Problems* During exam weeks you will not have a writing quiz on Thursday. Instead you will be assigned a longer, take-home writing problem to be handed in the following week. You will get an opportunity to rewrite your solution to each take-home writing problem, but *the scores from both drafts will be recorded and count towards your grade.* Hence you should make every effort to do well on your first draft.

Exams. Our three midterm exams are tentatively scheduled for the following Thursdays in class: 10/4/2012, 11/8/12, 12/6/12. The schedule or location may change depending on proctoring needs; any such changes will be announced well in advance in class, via email and on the course webpage. The final exam is scheduled for 1:30pm-3:30pm on Monday, December 17th, 2012 at a location to be announced by the department later this semester.

Make-up exams will only be permitted in extraordinary situations. (Think "emergency surgery," not "oversleeping," although I will be impressed if you sleep through a 1:30pm final exam.)

Grading Scheme. The components of the course will be weighted as follows:

- 35%: Homework
- 30%: Midterms (10% each)
- 35%: Final Exams

Overall course grades will be at least as generous as the following (standard) scale. I may *lower* these gradelines if a test or homework assignment turns out to be harder than intended.

90%-100%	A-, A
80%-89%	B-, B, B+
70%-79%	C-, C, C+
60%-69%	D, D+

Because this is a writing intensive class, you must earn at least a C- or better on the writing intensive problems to pass the course. Hence you should strive to average 70% or higher on these problems. (The C- gradeline may drop below 70%, but you should not count on it.)

Other Policies. We will follow all University and College policies regarding academic honesty and other matters. The most common situation involves asking for a grade of incomplete. Incompletes are given only in extremely unusual circumstances, and only if you arrange it with me in advance. Incompletes are given only if you have completed most of the course material at a satisfactory level – at least two midterms and most writing assignments at a C level – but some terrible, unexpected event prevents you from finishing the course. In particular, we cannot give you an incomplete if you simply fall behind in your work.

Academic Honesty. The instructor's solutions manual for this textbook can be found easily (if illegally) online. In past semesters, large numbers of 3283W students in have handed in solutions taken more-or-less directly from the manual. This behavior is academically dishonest and not appropriate for students in a University level course. Such actions can result in a score of zero on the problem, the entire assignment, and for your entire course grade. Here is the University's official statement on these matters:

> **Scholastic Dishonesty**: Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis.
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> Within this course, a student responsible for scholastic dishonesty can be assigned a penalty up to and including an "F" or "N" for the course. If you have any questions regarding the expectations for a specific assignment or exam, ask.

We encourage you to work together, but solutions must be written in your own words, and not identical to another student's work, a printed source or an online source. A good rule of thumb is the following:

> Wait 30 minutes. If you can still write out the solution on your own, without looking at the resource, showing all the steps and *in your own words*, then you have learned the material and the work is your own.

One other point to keep in mind: the instructors also have the solutions manual, and it is full of typos and mistakes, so it is surprisingly easy for your TAs to tell if a student has copied a solution (or portions thereof).