Math 3283W
Sequences, Series, and Foundations – Fall 2017

COURSE INFORMATION

Lecturer:

Prof. Markus Keel, Vincent Hall 222, `keel@umn.edu`.
Office hours: TBD

Teaching Assistants:

Section	Instructor	Email (@umn.edu)	Office (Vincent Hall)	Office Hours
011	Alice Nadeau	`nadea093`	503	Wednesday 10 - noon
012	Analise Rodenberg	`rode0110`	522	Monday 1 - 3
013	Madeline Handschy	`hands014`	520	Tuesday 11:15 - 1:10
014	Bruno Poggi	`poggi008`	505	M 2:25 - 3:15; Th 11:20 - 12:10
015	Vahan Huroyan	`huroy002`	557	Wednesday 1:30 - 3:30
016	Ryan Coopergard	`coope786`	526	Monday 11 - 1
Lecture	Markus Keel	`keel`	222	M, W 9:55 - 10:55

Note about office hours: Any student in the course can visit the office hours of *any* the instructors!.

Required text:
Lay, *Analysis, with an Introduction to Proof*, 5th edition (blue cover)

Course web page: `http://math.umn.edu/∼keel/teach_spring_2018.html`

Lectures: MWF 9:05 - 9:55 Bruininks Hall 230.

Discussion Sections: T, Th at either 9:05 or 10:10 a.m. (see course homepage for meeting times and rooms)

Exams and Problem Sets

Exams: Three 50-minute exams will be administered during Thursday sections and there will be a written final exam. There will also be frequent quizzes administered in the Tuesday sections. See Syllabus for dates of all quizzes and exams in this course.

Make-up Exams: If you know you must miss an exam, you may arrange to take a make-up exam in advance by emailing your teaching assistant and Professor Keel well in advance of the exam (at least two weeks). Otherwise, make-up exams will only be granted in exceptional circumstances owing to a serious medical condition that made it impossible for you to take the exam. A written note from a Physician must be submitted in this case, and

it is possible also in this case that the remaining exams might be counted more, instead of a make-up exam being administered. We want to emphasize that make-up exams will be administered only in the most serious of circumstances, and in all other cases a score of 0 will be assigned to the student who misses an exam.

Problem Sets: Weekly problem sets will be due THURSDAYS in section, starting Thursday, January 25. *NO late homework will be accepted, since solutions and graded work will be given out shortly after the due dates. We will drop the lowest two problem set grades.*

Homework Rules: Collaboration on problem sets is encouraged, **but**

a) **Attempt each part of each problem yourself.** Read each portion of the problem before asking for help. If you don't understand what is being asked, ask for help interpreting the problem and then make an honest attempt to solve it.

b) **Write up each problem on your own.** You may work together, but then do the final write up of your solutions independently and **write the names of classmates with whom you consulted**.

Grading of Problem Sets: Each problem set will be given a score out of 2 points. Homework will be graded only for completion - a score of "2" will be given if a homework set is submitted that shows a serious engagement with the problems. A score of "0" will be assigned if no homework is submitted, or if the homework submitted is severely lacking in rigor or completeness.

Writing-intensive component

This course is designated as *writing-intensive*. That is, writing is an integral part of the course and we will spend significant time discussing how to write mathematics well. In particular, the course grade is tied directly to the quality of the student's writing as well as to knowledge of the subject matter, and there are several special assessments of a student's writing throughout the semester.

Quizzes: There will be 10 Quizzes throughout the semester, administered on certain Tuesdays in section. Problems on the Quizzes will be similar to those assigned in the homework, and will be graded on both mathematical content and the quality of the written exposition. You will have approximately 10 - 15 minutes to complete each Quiz. See the hand-out on written assessments for a rubric on writing grades for the Quizzes.See the course syllabus for tentative dates of Tuesday Quizzes.

The highest 8 scores from your 10 Quizzes will count toward your final course grade. That is, we will drop your lowest 2 Quiz scores.

TEX project and rewrite: Communicating about mathematics requires careful use of language and symbols. Typesetting mathematics is an essential skill for anyone who wants to communicate technical information in a readable format.

TEX (pronounced *tech*) is a typesetting system that is used almost universally in the mathematical and scientific community. Compilers that convert TEX markup language (in a `.tex` file) into `.pdf` documents are widely available:

- free online compilers (ShareLATEX)

- free downloads for Mac (MacTEX) and Windows (MiKTEX)

- in CSE Labs (available also to non-CSE students of this class)

The project will consist of a one-page typeset document containing your solution to a problem in the course's textbook or another source, planned in advance with your TA.

After you submit your project (by sending the `.tex` file to your TA by email or Moodle upload), your TA will respond with suggestions for revisions or extensions, and you will have one week to submit an updated `.tex` file.

More information about scheduling and planning your project, and a template for the `.tex` files that you create, will be given early in the semester.

Grade Guidelines

Grading: Approximate weighting:
- TeX project – 5%
- Homework scores – 5%
- Quizzes – 20%
- 3 50-minute exams – 45% (15% each)
- final exam – 25%.

Webpage: All assignments, handouts, etc. will appear on the course webpage.

Academic dishonesty: See the Student Conduct Code for general information. Academic dishonesty will result in a report to the Office for Student Conduct and Academic Integrity, and penalties can include a grade of zero on the task in question and/or a failing grade in the course.

Academic dishonesty certainly includes cheating on writing quizzes and exams, but also includes copying from outside resources such as the book's instructors manual or other people's solutions to homework, exams, or quizzes.

Electronic devices are not permitted: We restrict the use of cell phones, laptop computers, and similar personal devices during lectures. Many educational studies demonstrate the effectiveness of taking hand-written notes in learning new material. Many studies also indicate that screens are a distraction in the classroom to those students sitting near the user of the screen. Furthermore, we want everyone to participate actively in the collaborative learning environment. For all these reasons, the use of screens will be restricted to the last two rows of the seats in the classroom. If you believe you require a special exemption to this rule, please discuss it with your instructor outside of class.

Furthur Requests for Classroom Practices: Questions during lecture are strongly encouraged and very much appreciated. To minimize distractions to students and instructor, newspapers are not allowed to be opened during lecture. To minimize distractions to students and instructor, it is not allowed to regularly leave the lecture hall early and then re-enter during the same class session unless special circumstances are present. (A note from a Doctor should be presented if regular breaks will be necessary.) Students are of course free to leave the lecture before the end of the lecture.

Questions: Concerns about homework and exam grading: ask your assigned teaching assistant. These questions should be posed within one week of the graded material's return to the student. Any content questions or general concerns about the course can always be asked of any of the instructors.