

MAT 513 ANALYSIS FOR TEACHERS

SPRING 2014

Instructor: Lisa Berger

Office: Math 4-105

Email: lbrgr@math.sunysb.edu

Web page: <http://www.math.sunysb.edu/lbrgr/>

Current Office Hours:

Mondays: 11:30-12:30 in P-143, 5:30-6:30 in 4-105

Wednesdays: 5:30-6:30 in 4-105

By appointment.

Office hours may be adjusted to accommodate the instructor's schedule and/or student needs. Students unable to meet during scheduled office hours are encouraged to schedule an appointment with the instructor.

Grader: Nissim Ranade

Email: Nissim@math.sunysb.edu

0.1. General Information. This is a course in real analysis. A primary goal is for you to improve your depth of understanding of functions and calculus while learning how ideas from this course are embedded in the secondary curriculum. We will discuss high school level pre-calculus and calculus topics as we simultaneously study these topics from a more advanced level. This course may include both new and familiar topics; your objective should be to increase your *depth* of understanding of each topic studied. This course will emphasize understanding definitions, mathematical proof, and mathematical writing. You should be prepared to work through a lot of problems, prove your results and write your work clearly and accurately.

0.2. Pre-requisites. A *minimum* pre-requisite for this course is completion of MAT 511. A strong background in undergraduate mathematics, including college calculus, is also assumed, and an undergraduate course in analysis is helpful.

0.3. Textbook. We will be using the fifth edition of the book *Analysis: With an Introduction to Proof*, by Stephen Lay. As the semester progresses, you may also want to refer to a high school or college calculus textbook. You should already have one; if not, I would suggest borrowing one from the Stony Brook library, a public library, or your high school campus.

0.4. Homework/Class Work/Quizzes.

Homework is an essential component of the course. Homework will be assigned and collected regularly, and selected problems will be graded. Homework is due at the beginning of the class period, and late homework will not be accepted. Announced and/or unannounced quizzes may be given, and there may be assignments completed and collected during class. Students are expected to be present for class, and missed quizzes or classwork may not be completed for credit. The lowest 2 scores in the homework/classwork/quiz category will be dropped.

A significant part of doing mathematics is *communicating* mathematics. Homework is expected to be clear and grammatically correct, in addition to mathematically accurate. Homework not meeting this criteria may

be returned ungraded.

Homework may be graded by the course instructor and also by the course grader. Aside from *mathematical* errors, all scores are to be considered final.

You are encouraged to work together, but submitted written assignments must be your own work and represent your own understanding. If you consult any outside sources, these must be cited. If you need clarification on this policy, please ask.

0.5. Exams.

There will be two midterms exams and a final exam. Exam 1 is *tentatively* scheduled for Wednesday, February 26. Exam 2 is *tentatively* scheduled for Monday, April 14. The **final exam** is scheduled by the University for: **Tuesday, May 13 from 8:30 pm to 11:00 pm**. An effort will be made to schedule *one* alternative final exam time.

0.6. **Final Grades.** Your final grades will be based on the following:

- (1) Exam 1: 20%
- (2) Exam 2: 20%
- (3) Homework/Quizzes/Classwork: 30%
- (4) Final Exam: 30%

0.7. Academic Integrity.

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academic_judiciary/.

If you do not understand the policy on academic integrity, please ask for clarification.

0.8. **Americans with Disabilities Act:** If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631) 632 – 6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. <https://web.stonybrook.edu/newfaculty/StudentResources/Pages/DisabilitySupportServices.aspx>.

0.9. **Critical Incident Management.** Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.