

INSTRUCTOR: Xiangjin XU *E-mail:* xxu@math.binghamton.edu
Office: Library North , Room 2226 *Phone:* 607-777-2514
Time and Location: MWF 10:50-11:50 am at LN2205
Office Hours: W 2:30-4:30pm, R 11:00-1:00pm (or by appointment)
Homepage: <http://www.math.binghamton.edu/xxu/>.

TEXTBOOK: Analysis (Second Edition) by E. H. Lieb and M. Loss,
Publisher: American Mathematical Society,

COURSE CONTENT: This is one semester graduate course in real analysis, an essential subject for students majoring in mathematics or using mathematics heavily in another major (physics, economics, etc.). We will carefully discuss Lebesgue measure and Lebesgue integration, L^p -space, some topics in inequalities, the Fourier Transform, distributions, Sobolev spaces, and cover most parts of the first half of the textbook. Some topics at the ends of the chapters may be omitted if time gets tight.

There will be weekly homework assignments, which will be posted on the class website.

ATTENDANCE POLICY: Regular attendance is expected. Attendance and class participation may be used in determining borderline grades. Students are expected to be on time for class and stay for the entire class period. Always turn off your **cell phone** before entering the classroom.

HOMEWORK: Weekly homework is generally due at class time on a given day. It will be graded and returned to you as soon as possible. **LATE HOMEWORK WILL NOT BE ACCEPTED FOR ANY REASON.** In computing your homework grade, the highest 10 grades will be counted. Discussion is encouraged, but everyone must hand in your own homework. Homework should be prepared with considerable care. More on this will be discussed in class.

MIDTERM EXAMS and FINAL EXAM: There will be one mid-term exam and one final exam. The dates for midterms will be announced at least one week advance if there are any change:

MIDTERM EXAM : To be announced,
FINAL EXAM: To be announced.

E-MAIL: I will frequently use e-mail to contact the class with announcements or other information. Please check your university e-mail regularly. Also, if you need to contact me, feel free to e-mail me at xxu@math.binghamton.edu.

HONOR CODE: The Honor Code will be strictly observed in this class. Please remember to pledge each written assignment.

COURSE GRADES: Course grades will be based on the following point distribution (Total: 1,000 points):

Homework: 500

Mid-term: 200

Final Exam: 300

Tentative grade scale:

A: 900-1000; B: 750-899; C: 600- 749; D: 500-599; F: below 500.

IMPORTANT DATES: Please be aware of the following dates:

Last day to **drop** a course: February 6

Last day to **add** a course: February 6

Last day to **withdraw** (with a "W") from a course: March 27

Last day of classes: May 8