**SYLLABUS**
**MAT 601, Principles of Mathematical Analysis**

**Instructor:** Prof. Eugene Poletsky
**Office:** Carnegie 206A
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**Office hours:** T, 12:30-2 PM, Th, 3:30-5 PM, and by appointment.

Class meetings are in 120 Carnegie, 2-3:20 PM

**Course Description:** This course is designed to introduce students to basic principles of mathematical analysis. We start with the construction of real numbers and, then, develop the rigorous theory of differentiation and integration. To do this we need to understand such topics from elementary topology as limits and continuity.

**Text:** Principles of Mathematical Analysis, W. Rudin, 3rd ed.,McGraw Hill, Inc.

**Homework:** There is no sense to take this course if you are not going to solve problems. Attached is the list of problems that seem to be important. The problems on the tests and final exam will be similar to these. Additional problems may be assigned in class. You are encouraged to collaborate with other students in working on homework problems, but remember that you will have to do your own work on the tests and final exam. Tests and final exam will be closed book, close notes.

Homework will be collected and graded. The pickup day is Monday.

**Tests:** There will be 2 tests in class. The expected dates for tests are: 10/2 and 11/11. Each test and the final will contain at least one homework problem. Any changes to this schedule will be announced in class and posted on my office door.

**FINAL EXAM:** Final exam covers the entire course and must be taken by students who want a passing grade. You are expected to take the final exam at the scheduled time on 12/10, 5:15-7:15 PM. Contact me at least 2 weeks before the final if you have any conflict with this exam.

**Grades:** Homework costs 100 points. Each of tests is worth 100 points. The final exam is worth 200 points. Homework, 2 test grades and the final exam will be added and then divided by 5. As you should know, the course grades include plus and minus grades. In order to keep grading policies as uniform as possible we shall follow the Math. Dept. guidelines for assigning letter grades to numerical scores.

| Numerical score p=points | Letter grade |
|---|---|
| 93<p<100 | A |
| 90<p<92 | A- |
| 87<p<89 | B+ |
| 83<p<86 | B |
| 80<p<82 | B- |
| 77<p<79 | C+ |
| 73<p<76 | C |
| 70<p<72 | C- |
| 60<p<69 | D |
| 0<p<59 | F |

Attendance at every meeting of the class is expected. Students are responsible for announcements, including changes of schedules made in class. Absence is no excuse for not knowing what was announced.

**MATHEMATICS 601, Fall 2014**
**Problems List**

Ch. 1 1-9, 11, 12, 13, 15, 17, 18
Ch. 2 1-9, 12-20, 22-29
Ch. 3 1-14abc, 16, 17, 20-25
Ch. 4 1-24, 26
Ch. 5 1-9, 11-17, 21-23, 25, 26
Ch. 6 1-8, 10-11, 13, 17