

# Math 0413 - Introduction to Theoretical Mathematics (Fall 2015)

**Instructor:** Tom Everest, Office: 611 Thackeray Hall, email: [teverest@pitt.edu](mailto:teverest@pitt.edu)

**Lectures:** MWF 02:00-02:50 PM. Thackeray Hall, Room 627

**Recitation:** TTh 02:00-02:50 PM in Public Health, Room A719. Recitation Instructor: Jing Liu

**Office Hours:** MW 04:00-05:00 PM, F 10:00-10:50 AM, or by appointment, in 611 Thackeray Hall.

**Class Website:** <http://www.pitt.edu/~teverest>

**Textbook:** Jiri Lebl: Basic Analysis, Custom Pitt Edition. Link to free .pdf of the textbook on class website.

**Overview:** The course covers the foundations of theoretical mathematics and analysis. Topics include sets, functions, number systems, order completeness of the real numbers and its consequences, and convergence of sequences and series of real numbers.

**Prerequisites:** Two terms of calculus on the level of Math 0220 and Math 0230.

**Grading:** Homework (15%), Quizzes (15%), Writing and Term Paper (15%), Midterm (25%), Final Exam (30%)

**Homework/Exam Information:** Homework assignments are posted on the class website, and are due on most Fridays. Homework must be turned in at the beginning of class on the due date. Late homework will not be accepted, but your lowest homework grade will be dropped. There are no makeup exams given.

**Quizzes:** Quizzes will be given in recitation, usually on Tuesdays. The lowest quiz grade will be dropped at the end of the semester. There are no makeup quizzes.

**Term Paper:** The term paper should be written in the style of an expository article on a mathematical topic of your choice. I will provide a list of suggested topics, but you are not limited to that list. Your paper should be interesting and comprehensible to a reader who does not already know your topic. It must include some technical detail or proofs.

Papers are to be typeset using LaTeX, which is the professional tool of choice for typesetting technical material. All sources must be cited in the paper. Papers that include passages lifted verbatim from other sources without appropriate citations will receive a grade of F.

## Disability Resource Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 216 William Pitt Union (412) 624-7890 as early as possible in the term.

## Academic Integrity

Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity will incur a minimum sanction of a zero score for the quiz, exam or paper in question. Additional sanctions may be imposed, depending on the severity of the infraction.

On homework, you may work with other students or use library resources, but each student must write up his or her solutions independently. Copying solutions from other students will be considered cheating, and handled accordingly.