Mathematics 220, Term I, 2015-16

Lecture times and locations:
- Section 101: Prof. I. Laba, MWF 12:00-12:50, Math Annex 1100
- Section 102: Prof. J. Chen, MWF 12:00-12:50, LSK 200
- Section 103: Prof. J. Chen, MWF 10:00-10:50, LSK 460

Lecturer: Prof. I. Laba (Section 101)
- Math Bidg 200, (604)822-4457, ilaba@math.ubc.ca

Lecturer: Prof. J. Chen (Section 102 and Section 103)
- Math Annex 1212, Phone: (604)822-6695, Email: jychen@math.ubc.ca

Prerequisites
- a score of 64% or higher in one of MATH 101, MATH 103, MATH 105, SCIE 001, or
- one of MATH 121, MATH 200, MATH 217, MATH 253, MATH 263.

Topics: The main aim of the course is to learn how write clear and correct mathematical proofs. It provides the gateway to more advanced mathematics. More precisely, we will cover
- Sets — definitions, set operations
- Logic — logical connectives, quantifiers
- Proofs — direct and contrapositive
- Proofs - existence and contradiction
- Induction
- Equivalence realtions
- Functions - injective, surjective, bijective, inverses and compositions.
- Cardinality of sets - finite sets and different types of infinite sets.
- Elementary real analysis - limits of sequences and series. Also supplement this with extra material on supremums.

Text: Gary Chartrand, Albert D. Polimeni and Ping Zhang: Mathematical Proofs - A Transition to Advanced Mathematics (3rd Edition).

Grade Policy: 15% homework (drop the lowest score) + 30% midterm + 55% final exam. The grades may be slightly scaled at the end of the course.

Exams: There will be one 50 minutes midterm exam which is in class and closed book on October 16 (Friday). The date of the final exam (2.5 hour) will be announced by the Registrar later in the term.

Homework: Assignment will be posted weekly at http://www.math.ubc.ca/~jychen. Problem set will be collected on each Friday (except the Friday in the first week). Late homework will not be accepted. Copying solutions from another student, from the web or from any other source, and turning them in as your own is a violation of the Academic Code.

Policy on missed assignments and the midterm exam: Students who are unable to hand in a homework due to a medical or equivalent excuse may have that homework not count towards their final grade. Missing a midterm exam or a homework normally results in a mark of 0. Exceptions are granted only with prior consent of the instructor or due to a medical emergency. In the latter case, the instructor must be notified within two working days of the missed exam and presented with a doctor's note immediately upon the students return to UBC. If an exception is granted for a missed test, the final exam will be used to make up that portion of the grade.