

## Mathematics 161: Honors Calculus Section 50 Autumn 2006

### Instructors:

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### Teaching assistants:

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**Course meetings:** TuTh 12:00-1:30, Ryerson 358

**Goals of the course:** This course will be structured differently from a standard Math 161 section. The main focus this quarter will be the structure of the continuum (also known as the real numbers). The approach will be rigorous and start from a few basic principles. An important goal in the course is to develop your ability to formulate mathematical proofs. To this end, there will be few if any lectures in the usual sense. Instructors will provide guidance, but the vast majority of the material will be developed and presented by students.

**Text:** The primary source will be notes distributed in class. The standard textbook for Math 161 (Spivak's *Calculus*) may be used, but takes a rather different approach than the one we will be taking this quarter. You are asked **not** to consult any other sources.

**Course requirements and grading:** The requirements for the course include:

- class participation,
- a journal in which you maintain proofs of results given in notes, and weekly homework assignments,
- a final exam.

Each of these components will count for a third of your final grade. You are encouraged to use the mathematical typesetting program  $\text{\LaTeX}$  for your journal and homework assignments. Resources to help you get started are available on the course webpage, given below.

**Other issues:** The teaching assistants will hold additional office hours and will conduct a weekly problem session. There will be a web page devoted to the course located at:

<http://www.math.uchicago.edu/~kevin/161>

To access it, it is essential that you type the web address precisely as specified. It will have a copy of this syllabus, class notes, homework assignments and any other information deemed relevant.