COURSE INFORMATION SHEET
FALL 2007

1. **Course**: PURE MATHEMATICS 603.53 - Reading on Metric Spaces
   Lecture/Time: TBA
   Instructor: Norbert Sauer
   Office/Phone/Email: MS 526   2206309   nsauer@math.ucalgary.ca

2. **Prerequisites**: Graduate Studies
   NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar (see www.ucalgary.ca/pubs/calendar) *Faculty of Science, section 5C*. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **Academic Accommodations**: It is the student's responsibility to request academic accommodations. A student with a documented disability who may require academic accommodation must register with the Disability Resource Centre to be eligible for formal academic accommodation. DRC registered students are required to discuss their needs with the instructor no later than fourteen (14) days after the start of this course.

5. **The University policy on grading and related matters** is described in the current University Calendar, *Academic Standings*. In determining the overall grade in the course, the following weights will be used:

Assignments	[5]	20%
Midterm Test	[1]	30%
Final Exam		50%

   A passing grade on any particular component of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office.

6. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined in the current University Calendar, *Faculty of Science, section 6A*. It is the student's responsibility to familiarize herself/himself with these regulations.

7. **Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the current University Calendar. See: http://www.ucalgary.ca/honesty/

8. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**
   THERE WILL BE NO OUT-OF-CLASS-TIME ACTIVITY.

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME ACTIVITY. If you have a conflict with this out of class time activity, please inform your instructor at least one week in advance of the activity so that other arrangements may be made for you.

PMAT 603.53   FALL 2007
Proposed graduate course on metric spaces
N. Sauer

The lecture will cover a general introduction to metric and ultrametric spaces followed by a construction of the Urysohn space and a discussion of Urysohn like metric spaces.

Then the notion of oscillation stability of the Urysohn sphere, an analog of   the   distortion problem for ℓ_2, will be discussed. It will be shown that the oscillation stability problem is directly related to divisibility properties of metric spaces and an outline of the proof for the oscillation stability of the Urysohn sphere will be given. The complete characterization theorem of divisible ultrametric spaces will finish the lecture.

The reading material will consist of recently published research papers by the working group on metric spaces consisting of C. Delhomme, C. Laflamme, L. Nguyen Van The, M. Pouzet and myself.