Math 731: Introduction to Topology
Syllabus, Fall 2013

Professor: **Dr. Jason Parsley**
Office: 330 Manchester Hall
Office hours: M 2:30-3:30, Tu 10-11, 3-4*, F 2-3, also by appointment
       (* – preference to math 112 students)
Email: `parslerj AT wfu.edu`
Course website: `http://users.wfu.edu/parslerj/math731/`

1. Course Time & Location: MWF 1pm, Manchester 124

2. Text: *Introduction to Topology*, by Colin Adams and Robert Franzosa

3. Problem session: There will be an optional problem session on **Tuesdays, 4-5pm** in room 124.

4. Topics: We will cover chapters 1-7 and (hopefully) chapter 14. If time permits, we will cover other chapters.

    1. Topological spaces

    2. Interior & closure

    3. Subspace, product, quotient topologies

    4. Continuity & homeomorphisms

    5. Metric spaces

    6. Connectedness

    7. Compactness

  14. Manifolds & surface classification

5. Assignments: Working problems, both individually and together, is fundamentally important in learning mathematics well.

Assignments will be due on Wednesdays at the start of class. I will grade some or all of the collected problems, typically worth 5 points each. Late work will accrue penalties. (You are allowed one exception to this policy.) I'm willing to work with you – if there are circumstances which will not allow you to submit homework on time, let me know and we can work something out.

Academic integrity is something I take quite seriously. Here are my expectations: you may discuss course material freely with each other. The written assignments that you submit must be your original work, i.e., when writing your solutions, you should be working independently, not together, you should not have anyone's work or notes in front of you. You should cite any extra sources you use, even for homework. You should not discuss the solution to your favorite problems (see below) with another student.

6. Favorite problems portfolio. I will ask for you to write up **6** of your favorite problems from the semester. These should be written in LaTex; your solution should be as refined as possible. You will submit one electronic portfolio; all figures must be self-contained in it. You will be graded not only on the correctness of your solution, but how well-written it is, the quality of the presentation (including figures), and the difficulty of the problems. We will post these on Google Docs. You must submit at least three of these by fall break, due Oct. 9. The entire submission, comprising one `.pdf` file, should be submitted by Monday, Dec. 2 at 1pm.

If you would like feedback on any problems, submit them by Monday, Nov. 25.

7. Exams. There will be two midterm exams and a final exam. The first midterm will include a 50-minute in-class exam and a small take-home component.

- 1st midterm: *F., Oct. 4*
- 2nd midterm: *F., Nov. 8*
- Final exam: *M., Dec. 9, 2-5pm*

8. Quiz. There will be one quiz, which cannot be made up, on Monday, Nov. 25. It is not intended to be difficult. It is worth 10 homework points.

9. Grade Calculation:

Homework	25%
Participation	5%
Portfolio	6%
Midterm Exam 1	17%
Midterm Exam 2	17%
Final Exam	30%

10. Gold Stars: Throughout the semester, I will award 'gold stars' to recognize achievements. These function as extra credit; the current exchange rate, which may fluctuate, is roughly

$$20 \text{ gold stars} \approx 1.00 \text{ point on your final average.}$$

You may earn these for things like going to relevant talks, finding errors in the text, finding errors on relevant Wikipedia pages (and fixing them), saying particularly insightful comments in class, solving difficult problems. I reserve the right to award these in many different, unspecified ways.

There is only one way in which you can lose stars – technology violations. If your phone rings during class or you are using your laptop during class, stars will disappear.

If you have a disability which may require an accommodation for taking this course, please contact the Learning Assistance Center (758 5929), then contact me, within the first 2 weeks of the semester.