

Algebraic Topology IV 2006
Information about the course

1. What is in the course:

- Introduction to algebraic topology
- Category theory
- Review of metric spaces and basic topology
- Homotopy theory
- Simplicial homology

If everyone taking the course has done the differential geometry course then I may replace simplicial homology by de Rham cohomology.

I will hand out a summary of the course but it may change as we go along.

2. References: There are lots of books in the library on algebraic topology but be careful as many of them are rather high powered. Books at an appropriate level for this course are:

Topology: a first course, James R. Munkres, 513.83 M966t.

Basic concepts of algebraic topology, Fred H. Croom, 515.14 C948b

3. Lecture times: Thursday and Friday at 12.10 in Room 203a of the Mathematics Building.

4. Email and the web: I will use email a lot. I will collect email addresses in the first lecture and I will assume that you are **receiving** and **reading** my emails.

Anything I handout which is printed will be on the course web page at <http://www.maths.adelaide.edu.au/~mmurray/at06/at06.html>.

5. Assessment: There will be n assignments and a final 3 hour exam. The final mark is calculated as follows. Let e be the mark for the exam out of 100 and a the mark for the best $n - 1$ assignments out of 20 then the final mark out of 100 is:

$$\max \left\{ e, \frac{80}{100}e + a \right\}.$$

6. Contact details. You can find me in the Mathematics Building, Room 106. The phone there is 8303 4174 and my email is michael.murray@adelaide.edu.au.

Professor Michael Murray
2006/7/24