

Topics in Topology
Math 657
Fall, 2000

This will be a general course on algebraic topology; to take it you should know the material in the standard first-year topology course. The course has two purposes:

- to provide you with a certain amount of basic information (fibre bundles, spectral sequences, homotopy groups, Eilenberg-MacLane spaces, Postnikov systems, cohomology operations, ...), and
- (more importantly) to get you used to the idea of grappling with the existing chaotic mass of advanced material in an inquiring but sceptical way.

The course will involve seminar talks given by the people that sign up; these seminar talks will be presentations that deal with selected research papers, some classical and some modern. Grading will follow the usual convention, but *passive attendance is not allowed*. It is important to have a willingness to read papers, think about them with an open mind, and prepare talks on them yourself. It is possible to have too much prior knowledge of topology to be qualified for the course.

Taking this course does not in any sense represent a commitment to work on a dissertation in topology, and in fact the course might be useful to students in a number of different areas. The text, to the extent that there is one, will be J. F. Adams' *Algebraic Topology: A Student's Guide*. People who are interested in enrolling should come to talk to me. There will be an upper limit on the enrollment.

Bill Dwyer