

Syllabus for Math 607-608 - E. Bruce Williams

- I. Pointset topology: continuity, compactness, connectedness, quotient space topology, group actions on spaces
2. Fundamental group, van Kampen theorem, covering spaces
3. Homology groups: singular complex, Eilenberg Steenrod axioms, CW chain complex
4. Cohomology: cup products, Poincaré duality
5. Geometric Applications