School of Mathematics

Course 212 — Topology 1999-2000
(Option for SF Mathematics, JS Mathematics, JS & SS Two-subject Moderatorship)

Lecturer: Dr David Wilkins

Requirements/prerequisites: 121

Duration: 24 weeks

Number of lectures per week: 3

Assessment:

End-of-year Examination: One 3-hour examination

Description: The course will begin by introducing concepts of convergence and continuity, first in the contexts of subsets of Euclidean spaces, then in the context of metric spaces, and finally in the context of topological spaces. Topological properties such as compactness and connectedness will be investigated. The course will conclude with a study of winding numbers and the exponential map, with applications to the topology of the plane (including the Fundamental Theorem of Algebra and the two-dimensional case of Brouwer's Fixed Point Theorem.)

May 6, 1999