School of Mathematics

Module MA2223 — Metric spaces   2009-10
(SF Mathematics, SF Two-subject Moderatorship)

Lecturer: Dr. Derek Kitson

Requirements/prerequisites: prerequisite: 121

Duration: Michaelmas term, 11 weeks

Number of lectures per week: 3 lectures including tutorials per week

Assessment: Assignments will be worth 10% of the final mark.

End-of-year Examination: This module will be examined jointly with MA2224 in a 3-hour examination in Trinity term, except that those taking just one of the two modules will have a 2 hour examination.

Description:

- Metric spaces (including open and closed sets, continuous maps and complete metric spaces)

- Normed vector spaces (including operator norms and norms on finite dimensional vector spaces)

- Topological properties of metric spaces (including Hausdorff, connected and compact spaces)

See also `http://www.maths.tcd.ie/~dk/MA2223.html`
Recommended Reading:

- *Introduction to metric and topological spaces*, W.A. Sutherland. Oxford University Press, 1975. Hamilton, S-LEN 514.3 L51 (13 copies), Open Access 514.3 L51;2

- *Metric spaces*, E.T. Copson. Cambridge University Press, 1968. Hamilton, Open Access 514.3 K8

- *Set theory and metric spaces*, I. Kaplansky. Boston, 1972. Hamilton, Open Access 511.3 L23

- *Introduction to the analysis of metric spaces*, J.R. Giles. Cambridge University Press, 1987. Hamilton, Open Access 515.73 M7

- *Metric spaces*, M. O'Searcoid. Springer Undergraduate Mathematics Series, 2007. Hamilton, Open Access 514.3 P7

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