Mathematics

Responsibility for Policy: Helen Lynch
Approving Authority: University Librarian
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The Subject Collection Management Policy is bound by the general principles detailed in the Library’s Collection Management Policy. It is not a stand-alone document and should be read in conjunction with the Library’s Collection Management Policy and any other subject specific collection documents.

1. General Information

1.1 Collection Purpose
The Library’s Mathematics collection supports the teaching, research and learning needs of staff and students in the Department of Mathematics within the Faculty of Computing and Mathematical Sciences.

The Collection supports Mathematics programmes ranging from bridging, through undergraduate, graduate and postgraduate certificates and diplomas to masters and PhD level.

1.2 Primary User Groups
The primary users of the collection are students and staff of Mathematics in the Faculty of Computing and Mathematical Sciences.

1.3 The Department of Mathematics’ research interests include:
- algebra
- astrophysics
- calculus
- computational mathematics
- dynamical systems
- finite groups
- fluid mechanics
- group theory
- magnetohydrodynamics
- mathematical software
- number theory
- numerical analysis
- optimisation
- semigroup theory
- symmetry
- universal algebra
1.4 Interdisciplinary Relationships

The mathematics collection is very heavily used by students studying the mathematics of almost every other discipline, especially statistics, computer science, economics, engineering, physics, chemistry, management and education. A close collaboration exists between the Faculty of Computing and Mathematical Sciences and the Faculty of Science & Engineering.

2. Description of Existing Collection

Relevant material is held in the following LC classification areas in the Central Library’s general collection:

QA 75 - 76 Mathematics (and Statistics)

The mathematics collection also includes material on Computer Science (QA75-76) which primarily supports the Department of Computer Science, Faculty of Computing and Mathematical Sciences.

Increasingly e-books are being purchased.

The Library has online access to an extensive list of scholarly journals through subscription to major publishers or suppliers e.g. Wiley, Elsevier, Oxford University Press and ISI. The Library subscribes to nine out of the ten most cited journals of 2011 in mathematics and nine out of ten for statistics (Web of Science Journal Citation Reports). The MathSciNet database gives access to a large amount of reviews, abstracts and bibliographic information in the mathematical sciences.

Free to access, Web based resources such as the e-print archives arXiv (Mathematics, physics and related disciplines), and mp_arc (Mathematical physics) are noted here as highly important sources of information in mathematics.

3. Scope of Collecting

Upper level and graduate texts, research monographs, professional society publications, and especially journals, are collected. Preprints and laboratory manuals are not collected. Reference works and conference proceedings are purchased selectively. Popular mathematics, biographies and histories are collected.

3.1 Chronological Periods

Although no chronological period is excluded, emphasis is on the study of modern mathematics. However, this modern study is often based on historical concepts which are still highly relevant.

3.2 Types of Material

Print and/or electronic formats are collected but other types of material may be considered.

3.3 Geographical Areas

The geographic area is not relevant to the study of mathematics or statistics.

3.4 Languages

English is the primary language of the collection.
3.5 Publication Dates

Collecting focuses upon recent and current imprints to support the teaching and research areas of the department although older material may be collected. Retrospective collecting may be undertaken to support new teaching and research programmes.

3.6 Special Considerations

- The study of mathematics is divided into three main areas; pure, applied and computational.
- A historical perspective is very important for mathematics.

4. University of Waikato at Tauranga Collection

This subject is not taught at Tauranga.