

## COLLECTION DEVELOPMENT POLICY STATEMENT

CLASSIFICATION: QA 1-74, 78-939 (MATHEMATICS)

JULY 1999

**General Purpose:** To support an undergraduate major in the Mathematical Sciences, plus core courses and some faculty research. In addition, the majors of Computer Science, Operations Research, Economics, Physics, and all areas of Engineering are supported.

**Collection Level Intensity:** General support

**Geographical Areas:** Geographical considerations are not appropriate to this collection.

**Chronological Periods:** No restrictions, emphasis on 20<sup>th</sup> and 21<sup>st</sup> century materials.

**Types of Material Collected:** Monographs, handbooks, tables, directories, dictionaries, histories, and serials (including some symposia and conference proceedings). Electronic sources include online databases, CD-ROMs, and evaluated Internet web sites.

**Types of Material Excluded:** Newspapers and audiovisual materials.

**Other Factors:** Fractals are located in Q, QA and QC. Operations Research and Modeling is located in T, TA, HD, and QA. Wargaming is found in U, and Statistics are in QA and HA. Engineering Mathematics is located in TA. Game Theory is located in QA, H, HB and HD.

**Subjects and Collecting Levels:** The areas of Mathematics are:

QA	1-99	General (mathematical logic, research history, tables), (excluding QA 75-77, Computer Science)
	101-141.8	Arithmetic
	150-271	Algebra, including game theory
	273-280	Probabilities and mathematical statistics
	300-433	Numerical analysis, analysis to include analytical methods connected with physical problems.
	440-699	Geometry, trigonometry, topology
	801-939	Analytic mechanics, including vibration analysis and turbulent shear flow.

Collection is highly selective in these areas with the exception of probability and statistics. Materials are usually selected from reviewing journals such as Choice, New Technical Books and recommendations from the department.

**Weeding Criteria:** Materials may be withdrawn from the collection based on the following criteria:

a) Age: Superseded by newer editions, ephemeral material. Handbooks withdrawn as newer editions are received except recent circulating copies when latest edition is in reference. Other text editions are normally withdrawn when a new edition is received.

b) Usage: Multiple copies with little/no use. Material of historical significance may be retained regardless of past usage.

c) Physical condition: Missing pages, text unreadable (water damage, foxing, etc.), poor quality paper, or other factors that preclude rebinding.

d) Level of Treatment: Too superficial for undergraduate study; new materials provide better/expanded explanations of complex subjects, clearer text styles, better illustrations; too advanced for undergraduate study.

Candidates for weeding will typically be compared with published lists of landmark works before being withdrawn.

MATHEMATICS courses and subjects supported include: Algebra and Trigonometry, Calculus, Differential Equations, Probability and Statistics, Mathematical Modeling, Foundations of Mathematics, Discrete Mathematics, Computational Matrix Algebra, Engineering Math, Design and Analysis of Experiments, Linear Algebra, Real Analysis, Complex Variables, Mathematical Physics, Operations Research.

Last updated by Sandra Higel, Subject Specialist