Collection Subject Statement: Mathematics

Last Reviewed: March 2025

The Mathematics collections at the University of Pittsburgh Library System support the academic programs and research needs of students, faculty, and staff in schools, departments, and programs of Mathematics across the University, as well as related fields including Physics, Chemistry, Engineering, and Economics. Relevant collections for this subject can be found at multiple University Library System (ULS) locations including Hillman Library, the Science & Engineering Library, Hanley Library, Millstein Library, and Owen Library. In addition, books dealing with the specific connections between mathematics and Art & Architecture or Music can be found in the Frick Fine Arts Library or the Finney Music Library respectively.

Purpose/Audiences
The Mathematics collections serve the teaching, learning, and research needs of the faculty and students at the Department of Mathematics on the Pittsburgh campus, as well as faculty and students across all five campuses of the University who engage with research and study in this field. Active areas of research and teaching include algebra, combinatorics and geometry; mathematics of machine learning; topology and differential geometry; mathematical biology; applied mathematical analysis; and actuarial mathematics. The overall goal of the collections is to provide a wide range of scholarly resources regarding mathematics to support the teaching, learning, and research needs of the University.

Due to the interdisciplinary nature of research and study in this field, other collections within the University Library System of interest include the engineering, physics, chemistry and computer science collections. It is assumed that purely mathematical works will go into the mathematics collection. Applications of mathematics to specific disciplines are acquired if they are a major focus of research in the department. The Mathematics collections focus on broader methods.

Guiding Principles and Areas of Focus
The collections include books, selected book series, conference proceedings, journals, reference materials, and databases relating to mathematics and its applications. The focus is on original writings and research in all formats, but occasional reprints of classic works or collected works of major contributors to the field may be included. Advanced and graduate level textbooks may be acquired, but most undergraduate and introductory textbooks will only be acquired on request in support of course reserves. Access to user guides and software manuals is maintained for those that are applicable to a broad audience. Major indexing and abstracting databases covering mathematical publications are available for all members of the University community.

Scope
English is the primary language of the collections. No effort is made to collect in other languages, although occasionally bi- or multi-lingual material that is primarily in English may be added. Materials are acquired primarily from publishers based in North America and Europe, but individual works and journals reflect a broad international scope of authors and contributors. Chronologically, the emphasis is on current materials, although replacements for noted works and works in less time-sensitive areas such as theory may be acquired from earlier dates.

Library of Congress Classification

- **QA1-939 Mathematics**
  - **QA1-43** General
  - **QA47-59** Tables
  - **QA71-90** Instruments and machines
  - **QA75-76.95** Calculating machines
  - **QA75.5-76.95** Electronic computers. Computer science
  - **QA76.75-76.765** Computer software
  - **QA101-(145)** Elementary mathematics. Arithmetic
  - **QA150-272.5** Algebra
  - **QA273-280** Probabilities. Mathematical statistics
  - **QA299.6-433** Analysis
  - **QA440-699** Geometry. Trigonometry. Topology
  - **QA801-939** Analytic mechanics

Connections & Collaborations
The ULS collaborates with other institutions and consortia to acquire specialized materials that support research, teaching, and learning in the subjects of Mathematics, particularly in areas where shared resources improve accessibility to rare or costly materials. Regionally and nationally, the ULS participates in several consortia for collection development (EAST, Hathi Trust, CRL) and resource sharing (PALCI EZBorrow, OCLC Interlibrary Loan, RapidILL) that shape strategy for this collection. Within the University, the intersection of mathematics with other departments and disciplines such as computer engineering, physics, and chemistry informs the development and scope of the collections.

Subject Experts

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Sources of Information
https://mathematics.pitt.edu
https://www.johnstown.pitt.edu/academics/majors-programs/natural-sciences
https://www.greensburg.pitt.edu/academics/majors-minors-certificates

https://www.upb.pitt.edu/academics/majors-minors