Collection Development Policy, Math

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Collection Development Statement

Department: Mathematics
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COLLECTION PURPOSE

The primary purpose of the library collection for the Department of Mathematics is to serve the learning, instructional, and research needs of students and faculty. Secondly, the collection provides benefits to community members, both for their professional and personal needs.

DEGREE PROGRAMS

- Bachelor of Science in Mathematics
- Master of Science in Mathematical Science
- Master of Science in Mathematical Science Industrial Mathematics Track

The Master of Science degree in Mathematical Science is intended to provide a broad base in applied and industrial mathematics. Research interests of the faculty include applied analysis, differential equations, methods of mathematical physics, probability and mathematical statistics, functional analysis, numerical analysis, approximation theory, nonlinear dynamics, fluid mechanics, wave propagation, algebra, number theory, and combinatorics and graph theory. A track in Industrial Mathematics is offered to prepare graduate students to pursue careers in industry by providing them with high quality professional training in branches of mathematics that are valuable to high-technology industry.

- Graduate Certificate in Mathematics

The Graduate Certificate in Mathematics is designed to prepare students to teach college-level mathematics in high schools or colleges. All required courses will be offered to accommodate distance learning by posting recorded lectures and offering scheduled online problem sessions and office hours.

- Doctor of Philosophy in Mathematics

In 1992, the Department of Mathematics began its Ph.D. program with emphasis on Applied Mathematics. Students in this program specialize in many different aspects of mathematics, including propagation through random media, nonlinear waves, graph theory, operator algebra and frame theory, tomography, approximation theory, differential equations, nonlinear dynamics and mathematical physics, as well as abstract algebra, real and complex analysis, and probability theory.
Collection description

The monographs for Mathematics continue to grow, both online resources and materials physically held in the library. At UCF, Mathematics materials can be found under many other sub areas such as engineering, artificial intelligence, computer science, data processing, and economics/business. The collection continues to evolve, with material updated to complement some of the older materials.

A portion of monographs found in the mathematics section would be considered textbooks. The library does not make it a policy to purchase textbooks, but if there is a book published which meets the needs of the department, it will be purchased. Many of the monographs purchased for mathematical education at UCF are published from university press.

Collection guidelines

- Chronology: Emphasis/restrictions

The collection at UCF in the area of mathematics, reflect the most current information available. There are no restrictions placed on the selection of materials, current materials as opposed to those considered historical/ foundation/core books. The library does seek historical materials to explain the foundation of Mathematics.

- Languages: Emphasis/restrictions

The preponderance of monographs in the library material for Mathematics is written in the English language. Although, there are some materials written in French, German, Italian, Russian, and Spanish.

- Geography: Emphasis/restrictions

A central point in the study of Mathematics is understanding and using formulas. Since formula computation and conversion crosses all geographic bounds, UCF does not restrict the purchase of materials based on geographic location. Finding solutions to problems using mathematical formulas would be similarly calculated from one country to another. Therefore, it would be unwise to restrict the purchase of books based on its country of origin.

- Subject treatment

The faculty and librarian, who are responsible for maintaining the library’s collection in the subject areas of Mathematics, are determined to keep the library collection current. That is why, anyone who browses the UCF catalog, will find materials in Mathematics that appeals to those in the lowest instructional level to the highest knowledge base. The library and faculty liaisons work in tandem to locate and purchase books that are of importance to both the higher division of study and the introductory courses.
• **Material formats**

  The Mathematics Department prefers paper whenever possible.

• **Material formats: Emphasis/restrictions**

  The Libraries collections currently consist of print journals and books, electronic databases, video and audio recordings, microfilm, photographs, archival materials, rare books and manuscripts, government publications and dissertations and theses. Other formats will be added as they are developed and to the extent that they meet the various selection criteria.

  • **Publication dates**

    There is no restriction on date of material purchased. Currently published books are added as is retrospective materials.

**Collection management issues:**

• **Replacement**

  Any book lost or stolen, which appears on the Aleph Lost Book Report distributed by the Circulation Department to the library liaison, will be considered for replacement. The title may be ordered directly from the Collection Development replacement budget fund at the discretion of the Head of Acquisitions and the library liaison for Mathematics if the title is essential to the collection. Outdated or superseded editions will not be reordered unless there is a specific need.

• **Retention/Deselection**

  ○ The decision to dispose of certain items takes into account such factors as past circulation, date of publication, nature of the material, and the judgment of interested faculty members as to the continued usefulness of the material to their subject areas.
  ○ Outdated, unused and no longer reliable materials are removed from the collection.
  ○ Deteriorated materials can be repaired, replaced or discarded.
  ○ Periodicals or electronic resources will be weeded when:
    ■ The library has only fragments of a title that does not justify the cost of filling out the run with an alternative format.
    ■ A title has not been currently subscribed to for more than ten years and its value is unapparent.
- A title has not been currently subscribed to for at least five years and the related programs have been discontinued.
- A title has been replaced by electronic access (or a different form of electronic access) and its retention is no longer necessary or advisable.

● **Out of print acquisition**

World Wide Web access to out-of-print dealers now often makes location of these items relatively convenient. As with other acquisitions, out of print titles will be acquired if there is a clear need to have the specific item in the collection and the price is reasonable.

● **Preservation**

The Library Liaison will consult with the Preservation Department on all matters relating to the care, repair, and safekeeping of all circulating library materials regardless of format type. Preservation issues of importance to the library liaison include:

- Collection maintenance of existing materials - rehousing, rebinding, repair, conservation, media transfer
- Deacidification projects - selected titles, whole collections, or partial collections
- Reformatting materials to microfilm or digital images
- Questions related to gifts-in-kind that may require preservation attention before materials are added to the collection