

MATHEMATICS AND COMPUTER SCIENCE COLLECTION DEVELOPMENT POLICY STATEMENT

I. PURPOSE AND PROGRAM DESCRIPTION

A. Library Collection Development Objective

The library seeks to support curricular and research needs in all areas of mathematics, computer science, and computer information systems for an undergraduate program and for teaching faculty. The Mathematics and Computer Science Department also provides some support for graduate level programs in other departments.

B. Description of User Groups Supported

User groups supported include undergraduate students and faculty. Changes in the user population during the most recent five years include faculty more actively engaged in research.

C. New and Expanding Areas of Interest

Actuarial mathematics and functional equations are growing interests within the Mathematics and Computer Science Department. Additionally, in the computer science field, Software engineering is subdividing into software analysis and design, testing and maintenance, project management, risk analysis, and object-oriented techniques. Object-oriented neural networks is a growing area of research. Legal/ethical issues in computing technology continues to grow in importance. Most of the established areas listed are also expanding in scope and depth.

D. Areas of Established Specialization

Actuarial mathematics, BCK and BCI algebra, differential equations, quality control, model building, stock market, operations research, numerical optimization, and mathematics education. There is established specialization in all areas of computer science and computer information systems. Especially important are object-oriented programming, artificial intelligence, operating systems, database design, data communications, algorithms, foundations, and computer organization.

II. TREATMENT OF SUBJECT DEPTH

A. Treatment of Subject Depth

The following subject headings will be used to collect for the mathematics and computer science collections. Both mathematics and computer sciences will collect primarily at the intermediate (3B) and advanced levels (3C).

SUBJECT SUBDIVISIONS	COLLECTING LEVEL
Actuarial Mathematics	3C
Algorithms	3C
Applied Statistics	3C
Artificial Intelligence	3C
BCK and BCI Algebra	3C
Computer Organization	3B
Data Communications	3C
Database Design	3C
Differential Equations	3C
Foundations of Computer Science	3C
Information Retrieval	3C
Legal/ethical Issues	3B
Mathematics	3C
Mathematics Education	3C
Model Building	3C
Neural Networks	3C
Numerical Analysis	3C
Object-oriented Programming	3C
Operating Systems	3C
Operations Research	3C
Project Management	3C
Quality Control	3C
Real Analysis	3C
Risk Analysis	3B
Software analysis, design, testing, maintenance	3C
Stock Market	3C

B. Specific Delimitations

Formats collected: Annuals and periodicals, extensively; Audiovisual, electronic, microformat collections, monographs, reference tools and textbooks, selectively; Dissertations and maps, excluded.

Imprint dates collected: Current, extensively; 20th century selectively; 19th century and earlier excluded.

Chronological focus: Current extensively; 20th century, selectively; 19th century and earlier, excluded.

Languages collected: English, extensively.

Places of publication: United States, Canada, United Kingdom, and Japan, extensively.