Collection Development Policy Statement for
Computer Science and Mathematics

Subject Specialist responsible:

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I.   Purpose

The main purpose of the Computer Science and Mathematics collections of the UMD Libraries is to support the research, teaching, and information needs of students and faculty in the corresponding departments in the College of Computer, Mathematical, and Natural Sciences (CMNS). Attempts will be made to have a balanced collection of materials appropriate to the mission of the UMD Libraries.

The **College of Computer, Mathematical, and Natural Sciences** consists of ten academic departments: Astronomy, Atmospheric and Oceanic Science, Biology, Cell Biology and Molecular Genetics, Chemistry and Biochemistry, Computer Science, Entomology, Geology, Mathematics, and Physics. CMNS is nationally recognized for education and research. The College offers a variety of courses – both in person and online – leading to all levels of academic degrees including BS, MS, combined BS/MS program, and PhD. Students receive innovative and cross-disciplinary educational experience. Faculty and researchers are leading research in Computer Science, Mathematics, Applied Mathematics and Statistics, and are engaged in collaborative work on campus with several major research centers and institutes, including UMIACS, Institute of Physical Science and Technology (IPST), Human Computer Interaction Lab, Maryland Cybersecurity Center (MC2), and with outside institutions and government agencies. Funding agencies include NSF, DARPA, ONR, ARL, AFOSR, NIST, NIH, NSA, DOE and NASA; It is ranked ninth among pubic institutions, and 14th in the country. Other special populations outside UMD that utilize materials are the scientific and engineering communities as well as educators.

Coordination and Cooperative Information:

Computer Science and Mathematics faculty and students are involved not only in their subject specific areas within their departments but also in interdisciplinary research within CMNS, as well as engineering, arts and humanities, environmental science, teaching, medicine, and law. Materials collected in all these subject disciplines are relevant to users seeking information resources in cross disciplines with Computer Science, Mathematics, Applied Mathematics, and Statistics. Collection development in Computer Science and Mathematics involves coordination with other disciplines including physical sciences, engineering and life sciences.

UMD Libraries have developed partnerships and collaborations with state, regional and national institutions and consortiums in order to enhance access to library collections and provide necessary materials for teaching and research. The membership in the Big Ten Academic Alliance (BTAA) and Chesapeake Information and Research Library Alliance (CIRLA) allows patrons to obtain print materials from other participating libraries through interlibrary loan services. For digital content, UMD Libraries offer access through its collaborations with BTAA, HathiTrust, and University System of Maryland and Affiliated Institutions (USMAI), as well through several science related partners including arXiv and ARL's E-Research.

Diversity:

Recognizing that Computer Science and Mathematics incorporate individuals of all ages who represent a multiplicity of racial and ethnic backgrounds, economic and educational levels and physical and mental abilities, the subject specialists build collections that mirror and support this diversity. These subject collections include materials and resources that reflect a variety of political, economic, religious, social, minority and sexual issues and support intellectual freedom by providing free access to all expressions of ideas through which any and all sides of a question, cause or movement may be explored. For more information, see Collection Development Diversity Statement.

II. Summary of Collection Scope at Current Collecting Levels

1. Scope: Computer Science and Mathematics collections include materials in all areas of the above mentioned subject disciplines. Building these subject specific collections started back in the 1890s when the Engineering Department was firmly established and complemented by a small collection of resources. In 1949, Marguerite G. Ritchie was hired as a professional librarian for the newly established Engineering and Physical Sciences Library (EPSL). She worked to secure all of the appropriate subject titles for EPSL and transferred subject appropriate materials from the main McKeldin library. In addition to housing materials in these subject disciplines, EPSL became a depository library for the US Patent & Trademark Office. The library's name in that capacity started with Patent Depository Library in 1984. The name has changed over the years to Patent and Trademark Depository Library in 1990 and Patent and Trademark Resource Center (PTRC) in 2011. As a PTRC, EPSL holds archive microfilms of more than 8 million United States patents. In the late 1990s, patents began to be available online. In 2018 the Engineering and Physical Science Library (EPSL) merged with the White Chemistry Library and was renamed as the STEM Library. STEM Library reference staff provides assistance in searching the myriad of electronically accessible patents.
2. Location: The collections are mainly housed at the Engineering and Physical Sciences Library but interdisciplinary materials are located at other library branches – McKeldin Library and Hornbake Library (Library Media Services, and Special Collections). Low used and superfluous materials are located in Severn library, an off-site repository. The collections are enhanced by access to materials at other libraries through Interlibrary Loan Services and involving partners and collaborators (e.g. USMAI, BTAA, HathiTrust, etc.)
3. Format: The collections consist of books and journals in print and electronic formats, conference proceedings, microfilms and microforms, and databases. Audio and video materials are purchased only by faculty request for instruction. The UMD Libraries are committed to collecting and maintaining a hybrid collection of materials where resources are collected in the most appropriate format for their intended use. Collecting in electronic format is preferred although print journal volumes will not be deaccessioned unless suitable electronic archives are purchased or not available through our consortial agreements.
4. Use: Library services and collections are open to the public. Most of the Library's materials circulate for use outside the library. Materials circulate to UMD faculty, staff, and students with valid ID cards. Others who wish to borrow materials must have a current library card issued through the Community Borrowers and Researchers Program.

III. Developing the Computer Science and Mathematics Collections

1. Language(s): The emphasis is on English language materials in the collections. Major works covering the subjects in other languages may be selected, although translations will be

preferred. Materials in the vernacular are generally the purview of the librarian responsible for that particular language.

2. <u>Geographical areas:</u> The major focus of items in the collections is on the North America, but curricular and research interests in international research place a great emphasis on works published by Western European publishers. All other geographical areas are collected selectively.

3. <u>Chronological periods/Imprint dates</u>: All chronological periods are collected for subject history, although selection will emphasize current publications, with the exception of reprints and classic works when required for replacement purposes.

4. <u>Materials selected</u>
   a) <u>Included materials</u>: Resources are acquired based on their authoritativeness, currency, comprehensiveness, ease of use, and relevancy. Collection access to information may depend on the best available format. This may vary by the type of information, the format compatibility with existing infrastructure, and the discipline. Resources in the collections currently include print and electronic monographs, conference proceedings, and journals; a broad range of online specialized databases are available, with direct links to full text.
   b) <u>Excluded materials</u>: Ephemera, pamphlets, preprints, offprints, technical reports, newsletters, manuscripts, juvenile materials, problem sets. Very selective in collecting manuals, pocket reference books, educational materials for self-assessment, exam preparation etc. Textbooks and audio-visual materials are not collected except per faculty member's request for instruction and research.
   c) <u>Levels of collection intensity</u>: UMD Libraries collect mostly on a university graduate/professional level and selectively on a university undergraduate level. The following Subject and LC Classes are taken into consideration when acquiring new resources:

   Mathematics/Computer Science

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

IV. Additional Collection Information

1. <u>Duplication:</u> In general, the Libraries acquire only single copies of works. Multiple copies of outdated materials may be deselected, but unique and classic materials are retained. Duplication is allowed for print titles authored by UMD faculty. Multiple copies will be maintained but not purchased when there is a high demand for teaching/learning. Whenever an electronic version is available, only one existing copy can be kept; all others must be deselected.

2. Gifts: Gift items added to the Computer Science and Mathematics collections are done so in conjunction with the [University of Maryland Libraries Gifts-In-Kind Policy](), particularly so that they "supplement existing collections in support of the University's teaching and research programs as well as to provide the University Libraries with special materials in which there is a scholarly interest". The subject specialist for Computer Science and Mathematics is ultimately responsible for deciding whether or not a gift is added to the collection.
3. Deselection/Withdrawal: Due to limited shelving space, print materials (books, journals, microfiche, microfilms, and CDs) are periodically reviewed and considered for deselection. Criteria for deselection include lack of circulation, local availability of electronic or more current editions, duplicates, physical condition of the item, and change or elimination of an academic program.
4. Preservation: The subject specialist will work with the Preservation unit at the University of Maryland Libraries when individual titles are brought to their attention that need rebinding, repair or replacement.

Implementation and Revision Schedule: This policy has been reviewed by the Collection Development Council ([lib-cdc@umd.edu]()) and is considered effective on the date indicated below. It will be reexamined regularly by the subject specialists and will be revised as needed to reflect new collection needs and identify new areas of study, as well as those areas that may be excluded.

Date: February 23, 2015 NZ; Rev: April 27, 2015; June 22, 2016; June 25, 2018   CDC 9/25/18