

STEM Collection Development Policy for UNO Libraries

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Clientele

The UNO Libraries STEM collection development program supports instruction and research in the Departments of Biology, Chemistry, Physics, Geology/Geography, and Mathematics, the College of Information Science & Technology, and associated centers and programs. Primary faculty contacts are the chairs, faculty liaisons, administrative aids, and other interested faculty. The collection development program also supports the life science information needs of faculty, staff, and students in other departments of UNO. While the library collects for the UNO campus community, its collection is used by local unaffiliated walk-in visitors and, through the Interlibrary Loan program and cooperative agreements with research institutions, the international life science research community.

Participation of patrons in collection development

The STEM Librarian selects additions to and withdrawals from the collections in these areas in UNO Libraries. Faculty, staff, and students routinely recommend books, journal titles, and databases. Recommended books are generally purchased. Journal and database recommendations are evaluated, trialed, and considered along with relevant data. Departments are consulted when large changes in the collection, including cancellation or addition of several serial titles or withdrawal from database subscriptions, are proposed.

Nature of the subject literature

The various STEM programs and departments at UNO combined with the constant changes in these fields make collection development in these areas a great challenge. The need for current, up-to-date information for research and education is vital. There is a distinct emphasis on conventionally published, peer-reviewed scientific journals and monographs. Journal literature is the primary source of information for the UNO Libraries clientele. Books and streaming media are also important to the collection. Popular literature is very sparingly collected, generally when requested to support teaching or research needs. Textbooks designed for use in undergraduate and graduate courses are collected selectively. UNO dissertations are available in electronic format. When users need dissertations from other institutions, they are directed to interlibrary loan, to electronic resources, or to commercial services that supply dissertations.

Description of materials collected

For all types of literature, digital format is preferred. Print may be acquired if no electronic version is available, if the electronic version is judged as poorly presented or unstable or if its content is incomplete, or if price or license terms of the electronic version are prohibitive. Both print and electronic versions may be acquired if a user needs the print version.

Document delivery is an important source of the literature needed by library users. Currently, document delivery services rely on the Interlibrary Loan Department to deliver monographs and copies of journal articles to the UNO community for teaching and research needs. Fast and efficient document delivery decreases the need to purchase infrequently used materials. Records of past document delivery requests are used as a tool in collection development.

Books

Book purchases, whether in electronic or print formats, must be relevant to STEM and fit the nature and scope of the collections. Librarian and patron recommendations, usage statistics of previous editions or items covering similar topics, publisher promotions, and published reviews are used when selecting books. As a rule, one copy of a title will be purchased. Duplicates are purchased on occasion and at the discretion of the librarian. Only electronic books available through institutional licenses will be purchased. Whenever possible, electronic books should be purchased with the right to maintain perpetual access. Remote use and multiple simultaneous users are also preferred license terms. Electronic books are purchased from a variety of vendors and can be purchased and licensed for UNO use only or purchased and licensed through various library consortia. Due to limited shelving space, print books are periodically reviewed and considered for withdrawal. Criteria for withdrawal include the usage of the item, local availability of electronic or more current editions, and the physical condition of the item.

Journals

The journal collection is the primary source of information in UNO Libraries. Journals are purchased primarily to support the teaching and research needs of STEM clientele. Interlibrary loan borrowing statistics, departmental research needs, and faculty suggestions are used in developing this collection. Priority is given to those publications with multiple requests, high impact factors, and titles of interest to more than one college or department.

Each spring, an evaluation of the journal collection is conducted. New journal titles are purchased each year as needed based on new programs and research interests. Low usage, low or no impact factors, extreme price increases, and problems receiving issues are most often the cause for cancellation.

Other materials

A solid collection of indexes to the life sciences literature is acquired. Historically, these were received in print but currently most are available electronically through various commercial, not-for-profit, and government suppliers.

Audiovisual media are acquired very selectively and primarily in response to requests by library users and only when they meet all other collection development criteria. Microforms are no longer collected.

Computer software is not actively collected except when associated with a traditional printed monograph. General software manuals and computer graphics are not collected. Data resources (data sets) are not actively acquired but select sets are available through various commercial, not-for-profit, and government suppliers.

Collection priority areas

The following areas are a specific target for print and eBook collection development as a reflection of campus and program strategic priorities.

- Women and LGBTQIA in STEM histories, biographies, and autobiographies
- Informatics and bioinformatics
- Cybersecurity
- Big Data
- Climate change, sustainability, and environmentalism
- Books about Nebraska and/or Midwestern biology, ecology, geology, geography or other disciplines
- Video game development and history

Subject and language modifiers

Geographical

Most items in this collection concern the United States, with special emphasis on the Midwestern and Mountain Plains regions. An increasing number of international publications are being added to the collection. Many of these items concern public health, climate change, and global warming.

Chronological

Emphasis is on acquiring current literature. As available shelf space diminishes, certain classes of older, rarely used materials are withdrawn.

Language

Literature in English is preferred. Materials in other languages are usually acquired in response to requests by library users and when the materials meet other collection development requirements.

Coordination

Close cooperation is maintained with other librarians at UNO that collect in related subject areas. Cooperation ensures comprehensive coverage while minimizing duplication, particularly for interdisciplinary programs.

Collection areas and gaps

Science

Agriculture, forestry, and animal care

Beyond a small core collection of monographs, journals, and electronic resources, UNO Libraries depends on document delivery programs for literature in agriculture and forestry. In general, studies of animal care in agricultural or zoological garden settings are not collected at UNO. This literature is most likely to be found in the UNL Libraries.

Biology and biochemistry

Biology has the primary collection development responsibility including medical titles that support pre-health and medical humanities programs. UNO Libraries has acquired some biochemistry materials through the collection development program for chemistry. UNO Libraries collects practical manuals designed to assist with written, oral, graphical, or electronic communication. To support the teaching programs, UNO Libraries acquires some works of history and historical biography in life sciences. Literature in genetics, molecular biology, cell biology, and developmental biology is collected at a low level. Those areas are the primary responsibility of UNMC McGoogan Library.

Bioinformatics, biocomputing, and biostatistics

Bioinformatics is a rapidly growing area and there is some overlap between biology and mathematics and statistics in bioinformatics, biostatistics, and computer modeling. In general, the collection development program in technology focuses on applications of computers, mathematics, and statistics.

Biological education

In general, studies of biological education are more likely to be purchased by the collection program in education. UNO Libraries does collect some works designed to assist life science faculty and graduate students in improving teaching skills and other works that are of more use to biologists than to researchers in education.

Chemistry

UNO Libraries has built a working collection for the chemist that is responsive to the research requirements of the Chemistry Department. Topics include analytical chemistry, inorganic chemistry, organic chemistry, physical chemistry, green chemistry, material chemistry, and theoretical chemistry.

Clinical medicine and health care

UNO Libraries does not extensively collect clinical medicine or health care. Those areas are the primary responsibility of UNMC McGoogan Library. UNO Libraries has a core collection of medical texts covering anatomy and physiology for general education courses. The library collects works on biological illustration and a smaller collection of works that focus primarily on medical illustration.

Environmental studies and toxicology

UNO Libraries acquires works that emphasize interactions between the physical environment and ecosystems, nonhuman populations, or individual nonhuman organisms. Works that discuss climate, pollution, or other abiotic aspects of the environment are also collected. Studies of climate and climate change are of particular interest.

The library also has a serious interest in substantive studies of nature conservation, especially in research regarding the Mountain Plains or Midwest regions. Environmental health and toxicology are generally closely related to public health and items are considered in collaboration with the social sciences program.

Geography and geology

Print monographs are reserved for theoretical and foundational texts as well as social and cultural commentaries, including tourism, GIS, and urban geography. UNO Libraries does not actively collect print maps but some historical maps and atlases are still available for use.

Neurosciences

UNO Libraries supports the longstanding neurobiology research interests of multiple campus departments, including Psychology, Neuroscience, and Biology and items are considered in collaboration with the social sciences program.

Physiology

UNO Libraries collects extensively for physiology including physiology and anatomy, sports medicine, and kinesiology and items are considered in collaboration with the education program.

Technology

In order to keep up with rapidly changing technology, UNO Libraries collects mostly ebooks and online serials in the following areas: include information technology, computer security, network security, wireless communications, social media, big data, biometrics, cryptology, informatics, computer game design and development, artificial intelligence, and robotics. Print monographs are reserved for theoretical and foundational texts as well as social and cultural commentaries.

Engineering

Beyond a core collection of journals and electronic resources, UNO Libraries depends on document delivery programs for most needs for literature in engineering. There is a small collection of engineering monographs and the print ASME Standards are updated approximately every five years. The bulk of engineering literature is found in the UNL Libraries.

Mathematics

Coordination and continuing evaluation is required concerning overlap in theoretical computer science, information theory, machine theory, and operations research. The mathematics and statistics collection emphasizes the theoretical and mathematical aspects as well as applied aspects.