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Biochemistry Collection Development Policy

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University of Nebraska Libraries, University of Nebraska-Lincoln
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I. GENERAL ACADEMIC PROGRAM REVIEW

Collection Overview

The biochemistry collection exists to support the teaching, research, and service endeavors of the Department of Biochemistry and the University of Nebraska-Lincoln community. The public may benefit from the biological sciences collection, although specific materials are not collected to meet their needs. Biochemistry-related materials not available in the library's collection are generally readily available through Interlibrary Loan. The collection is focused on the QD Library of Congress call number range, although the heavily interdisciplinary nature of scientific study necessitates some overlap with the rest of Q, R, S, T, and other areas.

Department of Biochemistry Overview

The Department of Biochemistry at UNL is a unit of the College of Agricultural Sciences and Natural Resources. In Fall 2008, the Department reported 13 tenured or track-track faculty members along with several adjunct and affiliated faculty members. According to its website, the department is "positioned at the interface between the physical sciences (bioinorganic, bio-organic, biophysics), the biological sciences (genetics and molecular biology), and the applied sciences (biotechnology)." The five stated research areas of emphasis are Redox Biology, Protein Structure and Function, Signal Transduction, Plant Biochemistry, and Cancer, Disease and Aging.

The Department's interdisciplinary approach allows for a relatively wide range of research interests within biochemistry including chloroplast molecular genetics, fatty acid transport, gene regulation, metal-ion metabolism, molecular virology, plant molecular biology, plant nutrigenomics, photosynthetic efficiency, proline metabolism, protein regulation, proteins relevant to neurodegeneration, redox homeostasis, regulation of tumor formation, and signal transduction. Most Department of Biochemistry laboratories are located in the George W. Beadle Center for Biotechnology and Genetics Research, which was opened in 1995. This building has computing facilities for bioinformatics and structural biology, a nationally renowned Plant Transformation core, a microscopy core facility, and a new Metabolomics Mass Spectrometry core. The Beadle Center also houses the Centers for Virology, Cellular Signaling, Plant Sciences, and Redox Biology.

Degrees Offered

The Department of Biochemistry at the University of Nebraska-Lincoln offers several different degree programs. In the fall semester of 2009, the Department of Biochemistry reported 207 undergraduates working toward a BS, 5 graduate students working toward an MS, and 26 graduate students working toward a PhD.

Bachelor of Science (BS) – The biochemistry major is offered through both the College of Agricultural Sciences and Natural Resources and the College of Arts and Sciences with slightly different requirements. Biochemistry majors are required to take the list of courses specified in the student bulletin. These include courses in agricultural sciences, natural sciences, mathematics and statistics, communications, and the humanities and social sciences.

Master of Science (MS) – Master of Science students are required to complete BIOC 831/832/998 and at least 2 credits of biochemistry seminar (BIOC 992K). Each student must also pass a written comprehensive examination formulated and administered by the Examining Committee. Other degree requirements vary based on whether the student chooses Option I, II, or III, as described in the graduate bulletin.

Doctor of Philosophy (PhD) – The doctoral training program has five areas of focus: Redox Biology, Protein Structure and Function, Signal Transduction, Plant Biochemistry, and Cancer, Disease and Aging. Students are required to take credit hours in BIOC 831/832/998 and 4 credits in a biochemistry seminar (BIOC 992K). They must also pass a written and oral comprehensive exam, complete an original research project, and write and defend a dissertation.

Library Collections

Library users affiliated with the Department of Biochemistry may have interests that overlap with other areas of study covered by separate collection development policies. These include agronomy, biological sciences, biological systems engineering, chemical engineering, chemistry, computer science, food sciences, plant pathology, natural resources, nutrition, and physics.

II. GEOGRAPHICAL COVERAGE

For materials with a geographic focus, specific attention is given to topics relating to Nebraska and the Great Plains region. However, no geographical region is excluded.

III. CHRONOLOGICAL COVERAGE

Emphasis is on current research, although history of science titles and other historical treatments are also collected as funding allows.

IV. IMPRINT DATE

Priority is given to works that have been published in the past five years. Other materials may be acquired selectively when gaps in the collection are identified.

V. FORMAT

Academic monographs, serials, databases, and reference works form the core of the biochemistry collection with an increasing tendency toward electronic materials. Materials in other formats are acquired when appropriate. Textbooks are acquired minimally, especially at the lower undergraduate level.

VI. LANGUAGES

English is the primary language collected, although materials in other languages may be acquired on a limited basis to fulfill patron requests. Translations into English are preferred.

VII. CLASSIFICATION AND INTENSITY LISTING

Materials Selected with Funds Designated for Biochemistry

The following list contains Library of Congress call number ranges, subject, and corresponding collection intensity levels for topics related to Biochemistry:

QD 146-197	Inorganic chemistry – STUDY
QD 415-436	Biochemistry – RESEARCH
QD 901-999	Crystallography – RESEARCH
QH 573-671	Cytology – RESEARCH
QK 640-707	Plant Anatomy – STUDY
QK 710-899	Plant Physiology – RESEARCH
QH 426-470	Genetics – RESEARCH
QP 501-801	Animal Biochemistry – RESEARCH
QR 355-502	Virology – RESEARCH
RC 254-282	Neoplasms – RESEARCH