

Chemistry Collection Development Policy

Subject Librarian: Scott Opasik

Purpose of Policy: To build a collection that serves the teaching, learning, and research needs of students taking Chemistry courses and the faculty teaching those courses.

Program Description: Chemistry offers the following degrees

- BS in Chemistry
- BS in Biochemistry
- BA in Chemistry
- Minor Chemistry
- Minor in Biochemistry

New and Expanded Areas of Teaching

- Biochemistry
- Medicinal Chemistry
- Nanotechnology
- Pharmacology
- Environmental (Green) Chemistry

Faculty Area of Research Interest

- The biochemistry of metalloproteins and their role in the detoxification of heavy metals in the environment; chemistry education.
- Organometallic chemistry; trimetallic carbonyl clusters; perfluoroalkyl lead compounds
- Lower bounds to energy eigenvalues of atomic and molecular systems; upper and lower bounds to observable properties of atomic and molecular systems; methods to solve the Schrödinger equation.
- Activated iodine oxidation of alcohols to carbonyl compounds; asymmetric copper-catalyzed [2,3]-sigmatropic rearrangement of alkyl and aryl substituted allyl sulfides.
- Development of sensitive electroanalytical methods to detect pollutants in environmental samples; electrochemical modification of electrode surfaces.
- Antibody engineering, phage display, biosensor design, allosteric interactions.

Student Population: The majority of students who take chemistry courses are not majoring in chemistry. Chemistry provides courses that support many non-chemistry majors including Nursing, Biology, and Computer Science as well as courses that fulfill general education requirements (Visual Literacy and Common Core - the natural world)

Departmental Use of Library Resources: The Chemistry department depends heavily on journals, less on monographs.

The use of library resources are required for:

CHEM-C 301 Chemistry Seminar – capstone course for senior

CHEM-C 430 Inorganic Chemistry/CHEM-C 335 Inorganic Chemistry Laboratory

Accreditation Requirements: First and foremost, the library must build a collection that meets the ACS accreditation standards. (ACS Guidelines and Evaluation Procedures for Bachelor's Degree Programs, 2015)

These include:

- Broad range of peer-reviewed chemical literature that is readily accessible.
- No fewer than 14 current and archival, peer-reviewed journals.
- A minimum of three journals that have a general focus.
- A minimum of one journal that covers each of the following areas:
 - Analytical chemistry
 - Biochemistry
 - Inorganic chemistry
 - Organic Chemistry
 - Physical Chemistry
 - Chemistry Education.
- The library must provide timely access to periodical literature not available on site.
- Students must have access to databases that allow them to develop literature searching skills, including structure-based searching, and that support research and instructional activities.

Collection Guidelines: The library will collect English language materials only, primarily at the undergraduate level with a focus on the ACS Guidelines.

Location: The majority of materials are housed in the Schurz Library under the following LC classifications:

- Chemistry (General) [QD1-69] excluding Alchemy
- Analytical Chemistry [QD71-145]
- Inorganic Chemistry [QD146-199]
- Organic Chemistry/BioChemistry [QD241-449]
- Physical and Theoretical Chemistry [QD450-731]
- Crystallography [QD901-999]