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Feature of the
Journal of Chemical Education:
The Chemical Information Instructor

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The ACS CPT Guidelines were developed “for chemistry departments in colleges and universities that prepare undergraduate students for employment as professional chemists, for entrance into graduate school in chemistry and related fields, and for employment in areas in which a strong background in chemistry is needed.” *

*Undergraduate Professional Education in Chemistry: Guidelines and Evaluation Procedures, Spring 2003

CPT Guidelines historically included library collection requirements:

✓ Minimum number refereed journals (print or online) including specific titles
✓ Reference collection (details not specified)
✓ Chemical Abstracts (print or online)
✓ Interlibrary loan for articles in journals not held by the library
2003 CPT Guidelines included section on “Chemical Literature and Information Retrieval”

✓ Formal instruction recommended either as a specific course or through library and computer exercises in existing courses
✓ Specific indexing and abstracting tools (Chemical Abstracts, Science Citation Index, Current Contents, PubMed)
✓ Online, interactive database searching
✓ Language re: *print* CA dropped in 2003
2003 CPT Guidelines are further enhanced by “Topical Supplements”, including one on “Chemical Information Instruction”
Chemical Information Retrieval

(Prepared with the assistance of the ACS Division of Chemical Information)

A student who intends to become a practicing chemist, or who will use chemistry in allied fields of science and medicine, should know how to use the chemical literature effectively and efficiently. Guidelines for instruction in chemical information retrieval for chemistry majors are given in this appendix, including an outline of course content, the level of ability desired, and suggestions as to ways in which library skills may be imparted.

http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=education\cpt\ts_cheminfo.html
Topics and Skills

✓ Understand content/organization of major tools
✓ Use primary and secondary literature effectively
✓ Specific task based objectives

Implementation of Library Instruction

✓ Suggestions for locating course materials
✓ Instructor training resources
History of the Chemical Information Instructor

The ACS CPT guidelines and topical supplements provide a framework for instructional programs and a blueprint for accrediting educational programs in chemistry.

Instructors of chemistry need specific course designs, curricula, teaching methods, assignments, and lessons to meet the guidelines. There are many creative ways to teach chemical information skills, and many of these can be adapted to a variety of learning environments. Communicating these strategies to colleagues facing the same teaching challenges is important.
History of the Chemical Information Instructor

The ACS Division of Chemical Information (CINF) Education Committee conducted 2 surveys of chemistry departments (1984 and 1993)* to learn the extent of current information instruction and to identify difficulties and concerns of such instruction.

Several activities and programs resulted, including productive discussions with Joseph Lagowski (then editor of *Journal of Chemical Education*) about starting a feature about teaching chemical education.

*Results were published:
History of the Chemical Information Instructor

In 1991, Arleen Somerville became founding feature editor for the Chemical Information Instructor, and authored its first article:


Arleen retired as feature editor in December 2002, and Andrea Twiss-Brooks took over in January 2003.
Information for contributors to the Chemical Information Instructor

At the JCE home page, click on the Contributors link.
Information for contributors to the Chemical Information Instructor

On the JCE Authors page, choose **Features** link.
Information for contributors to the Chemical Information Instructor

About The Chemical Information Instructor

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This column provides instructors with practical information on a wide range of topics related to teaching information-searching skills to undergraduates, graduate students, and other researchers. Although most articles are academic in focus, chemists in other settings will find material that can be adapted to their needs. Non-academics are also encouraged to consider submissions describing successful instructional programs in their organizations that are of potential interest to academic instructors. Information is provided in print, and on the Web via JCE Online.
Topics include, but are not limited to:

- course descriptions: full semester or short courses
- workshops
- integration of information instruction into one or more courses
- integration of WWW sources into instruction
- specific types of information: e.g., inorganic chemistry, organic reactions, polymers, bioorganic chemistry
- specific types of materials: e.g., patents, journal articles
- specific sources and databases: e.g., Chemical Abstracts
- specific types of searches: e.g., structure, reaction, cited reference
- current awareness on a topic
- teaching techniques: e.g., interactive teaching
Contributions should provide information needed by readers to reproduce similar experiences in their institutions. Authors should include:

- description of the instruction
- staffing
- costs involved and means of funding
- logistics - hardware, software, scheduling; practice questions and exam questions
- how the information instruction contributed to the overall instruction program; and any other information the author thinks other instructors would find valuable
Teaching and Using Chemical Information: Annotated Bibliography, 1993-1998 (by Carol Carr)

- Table 1. Summary of Articles on Teaching Chemical Information
- Articles on the Web Relating to Chemical Information Instruction
- Teaching Chemical Information
- Web Resources for Chemical Information Instructors
- Class Materials
- Compilations
- Database Vendors/Producers
- Listservs
- Organizations/Journals
Articles Published in the Chemical Information Instructor


Somerville, A. N., Information sources for organic chemistry, 1. 68 (7): 553-61.

Abrash, H. I., A course in chemical information retrieval. 69 (2): 143-6.


Somerville, A. N., Subject searching of Chemical Abstracts Online: searching in the Basic Index. 70 (3): 200-3.

Cooke, R. C., Undergraduate online chemistry literature searching: an open-ended, course segment approach. 71 (10): 867-71.


Wier, L. M., Chemical Abstracts: switching to electronic access. 71 (7): 578.
Articles Published in the Chemical Information Instructor

**Baysinger, G.**, Undergraduate organic chemistry students use printed and electronic handbooks to identify unknowns. 72 (12): 1107-11.


**Matthews, F. J.**, Chemical literature: a course composed of traditional and online search techniques. 74 (8): 1011-1014.


**Smith, A. L.**, Chemical information instructor: finding chemical information through citation index searching. 76 (8): 1153-1157.

Articles Published in the Chemical Information Instructor


Christensen, S. B.; Franzyk, H.; Frolund, B.; Jaroszewski, J. W.; Staerk, D.; Vedso, P., Incorporation of the CrossFire Beilstein database into the organic chemistry curriculum at the Royal Danish School of Pharmacy. 79 (6): 765-768.


Currano, J., Information course for chemistry graduate students. (forthcoming).


9 papers by librarians

12 papers by teaching faculty

4 papers co-authored by librarians and teaching faculty

Authors from research universities and primarily undergraduate institutions, domestic and international
Future Directions for the Chemical Information Instructor

- Update to *Teaching and Using Chemical Information: Annotated Bibliography*

- Searchable edition of entire bibliography

- More submissions from authors teaching chemical information in high school and two year colleges
An Invitation

To all instructors of chemical information:

Consider a submission to the Chemical Information Instructor!

Contact me for more information:

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Ideas for articles? Suggestions for authors? Write them here!
Recent articles in the Chemical Information Instructor