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## The American Chemical Society's Undergraduate Chemistry Program Approval: A Conflict of Interest?

Denise Brush

*Rowan University*, [brush@rowan.edu](mailto:brush@rowan.edu)

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[Previous](#)[Contents](#)[Next](#)

Issues in Science and Technology Librarianship

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# Viewpoints

## The American Chemical Society's Undergraduate Chemistry Program Approval: A Conflict of Interest?

**Denise Brush**

Rowan University Library Services

Glassboro, New Jersey

[brush@rowan.edu](mailto:brush@rowan.edu)

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The American Chemical Society (ACS) is the sole approving organization for Bachelor of Science degrees in Chemistry in the United States. While the word "approval" is used rather than "accreditation," it is considered the equivalent of departmental accreditation. In this role, the ACS requires college and university libraries to subscribe to certain journals that it deems critical, as well as requiring access to *Chemical Abstracts*. The ACS is also the publisher of a number of academic journals in the field of chemistry, and is the sole publisher of the Chemical Abstracts database. This conflict of interest, which has a significant financial impact on academic libraries, should be a concern for all science librarians.

The ACS Guidelines and Evaluation Procedures document describes in detail the requirements which must be met by undergraduate chemistry programs in order to receive approval from the American Chemical Society ([Committee on Professional Training 2008a](#)). Of particular interest to librarians is section 4.4, Chemical Information Sources, which states:

**4.4 Chemical Information Resources.** The vast peer-reviewed chemical literature must be readily accessible to both faculty and students. Historically such access came through a good library providing monographs, periodicals, and facilities for database searches. Electronic access has changed the function of libraries as physical repositories. An approved program must provide students with the following minimum chemical information resources:

- An approved program must provide access to no fewer than 14 current journals chosen from the CPT recommended journal list (available from the CPT Website) in either print or electronic form. At least three must come from the general content list, and at least one must come from each area of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry, and chemistry education. In addition, the library should provide access to journal

articles that are not readily available by a mechanism such as interlibrary loan or document delivery services. If primary student access is electronic, cost or impractical times for access should not limit it unduly.

- Students must have print or electronic access to *Chemical Abstracts*, including the ability to search and access full abstracts.

The ACS offers subscriptions to their journals both individually and in bundled packages. The packages do not permit individual title selection or cancellation. Subscription pricing for academic libraries is based on the size of the institution and the number of chemistry students, and must now be individually negotiated by each library. Seventeen of the 33 journals on the CPT Recommended Journal List (52%) are published by ACS. Besides ACS, there are only nine publishers represented on the entire journal list: Wiley, Royal Society of Chemistry, Nature Publishing Group, National Academies Press, AAAS (American Association for the Advancement of Science), Elsevier, ASBMB (American Society for Biochemistry & Molecular Biology), Springer, and AIP (American Institute of Physics).

While it is called the ACS "recommended" journal list, the wording in section 4.4 above says "an approved program must provide access to no fewer than 14 journals" from this list ([Committee on Professional Training 2008b](#)). There is no option for using journals with similar content; institutions must subscribe to these specific journals. Since more than half of the journals on the list are published by ACS, the impartiality of the list is questionable; it would be very difficult to meet the journal requirements for program approval without subscribing to any ACS titles.

In particular, it would be impossible to meet the requirement for the "chemistry education" category, since the only title listed is the ACS' *Journal of Chemical Education*. Several other journals on chemical education exist, just as many other journals in the various sub-disciplines of chemistry exist which are not represented on the journal list. In addition, new journals are launched by publishers every year. It is not appropriate for the ACS to require libraries to subscribe to their journals (from which they make money) when alternatives are available. ACS could easily remedy this situation by expanding the list of acceptable journals in each category so their titles are less predominant.

The other major requirement for undergraduate program approval is access to *Chemical Abstracts* (CA). While the 2008 requirement indicates "print or electronic" access, the Chemical Abstracts Service (CAS) ceased publication of the print version of *Chemical Abstracts* on January 1, 2010. That leaves two very expensive electronic options for academic libraries: STN (which has a command language interface not designed for undergraduate use) and SciFinder, both available exclusively from CAS.

Online access to SciFinder is tightly controlled; unlike most library database vendors, CAS does not offer unlimited access for an entire campus. Site licenses are offered with restrictions on the number of simultaneous users, with the price rising significantly for each additional concurrent user. Over the past several years the financial impact on academic libraries of meeting the CA requirement has gone up dramatically.

Is Chemical Abstracts really an essential resource for undergraduates? Seven of the ten full-time tenure-track chemistry faculty at Rowan University responded to an informal survey I conducted on the use of SciFinder by undergraduates. Two instructors said it is not used at all by their undergraduate students, and two said that it was only used in the required senior research seminar. The other three said they taught one or more undergraduate courses in which students used SciFinder. One professor said rather

pointedly that he deliberately avoids telling undergraduates to use it because our current subscription only allows one concurrent user. This is probably not the outcome the ACS intended by requiring institutions to subscribe to Chemical Abstracts.

While it is indisputable that the data available in Chemical Abstracts is extremely valuable, even essential, to education, research, and professional practice in chemistry, there is a significant conflict of interest in this situation. The American Chemical Society, as the sole accrediting body of undergraduate chemistry programs in the U.S., should not be allowed to require access to Chemical Abstracts (from which it makes money) as a condition of program approval. To avoid this conflict of interest, the Chemical Abstracts requirement should be changed to a "recommendation," allowing libraries to provide viable alternative indexing sources to their undergraduate chemistry programs.

In my view, recognition of the conflict of interest in the chemistry program approval requirements is long overdue. It is time to stop allowing ACS to get away with requiring colleges and universities to purchase their products. Fortunately, the solution is easy enough -- the addition of some journal titles to the Recommended Journal List, and a change in wording from "required" to "recommended" regarding Chemical Abstracts. I encourage ACS to make these simple but important changes.

## References

**Committee on Professional Training, American Chemical Society.** 2008a.

Undergraduate professional education in chemistry; ACS guidelines and evaluation procedures for Bachelor's degree programs. [Internet]. [Cited 1/24/11]. Available from: {<https://www.acs.org/content/dam/acsorg/about/governance/committees/training/2015-acsguidelines-for-bachelors-degree-programs.pdf>}

**Committee on Professional Training, American Chemical Society.** 2008b. CPT

Recommended Journal List. [Internet]. [Cited 1/24/11]. Available from: {<https://www.acs.org/content/dam/acsorg/about/governance/committees/training/acsapproved/cpt-journal-list.pdf>}

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[Previous](#)

[Contents](#)

[Next](#)

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