

## Executive Summary Chemistry

During the Fall of 1997, all of the faculty and 50% of graduate students in Chemistry (CHEM) were surveyed by the Library to determine their use patterns and their levels of satisfaction with The Library's collections and information services. Forty-eight percent (48%) of the faculty and 30% of the graduate students participated in the survey.

A few points to keep in mind when reviewing these results: first, the survey was designed to collect faculty and graduate student self-reported use and levels of satisfaction. For a more complete picture, these results should be viewed in conjunction with actual use figures, as reported in the Library's annual use statistics and as will be reported within the quantitative portion of the final CLR 6601 report. Secondly, return rates varied substantially from department to department, from a low of 23% (Business graduate students) to a high of 61% (Classics graduate students). A return rate of 50% or higher is necessary in order to say with confidence that the results reported are likely to apply to the group as a whole.

### Activities and outcomes

One quarter of CHEM graduate students report they are daily users of the library. An additional 71% report that they use the library weekly. Nearly one third of responding faculty report using the library on a daily basis. An additional 58% report weekly use of the library. A small majority of faculty (52%) say they browse in the stacks sometimes or often, while a slightly larger number of graduate students (58%) report browsing. Nearly all faculty (96%) and 100% of responding graduate students come to the library to find, borrow, or copy materials. Ninety-two percent (92%) of the faculty report reading and borrowing journals, as do 94% of the graduate students.

Half of faculty (50%) and 39% graduate students report searching print indexes or bibliographies. On the issue of seeking the advice of a librarian, less than one quarter – 23% – of the faculty report doing so sometimes or often. Even fewer of the responding graduate students – 20% – report regularly seeking librarian advice and recommendations.

Responding faculty and graduate students alike are heavy searchers of the Library's online catalogs. Both report searching electronic abstracting and indexing (A and I) databases and the World Wide Web (WWW) sometimes or often, large percentages of graduate students report doing so (84% report searching electronic A and I databases sometimes or often, 70% report searching the WWW sometimes or often), as do faculty (81% report searching A and I databases sometimes or often, 77% report searching the WWW sometimes or often). Sixty-two percent of the faculty delegate searching functions to a research assistant, though only 39% report doing this often. Seventy-three percent (73%) of faculty say they make assignments requiring undergraduates to use the library. Even more – 89% – report sending their graduate students to the library to get help in formulating or carrying out their research projects.

Very few faculty (4%) and none of the responding graduate students report attending Library Research Workshops. Yet, graduate students – in particular – are relatively heavy users of the library's electronic services: 57% report browsing the Melvyl® Table of Contents databases and 80% access journal article databases on Melvyl® in the Library. Fewer of them (37%) download articles from Melvyl®, and only 26% access the library's CD ROM databases either sometimes or often. Interestingly, 22% of these same graduate students report they do not access library resources remotely, even though 63% of them report having a computer with modem at home. Ninety-eight percent (98%) have a computer with modem in their office.

A large majority of the faculty – 85% – report using the library in preparing grant applications, though very few – 4% – report attending faculty seminars. Less than one-third of the faculty (31%) rely on librarians to help teach research skills to their students.

### Collections

Sixty-six percent (66%) of the faculty and 69% of graduate students rate the library's collections of books as good or excellent. None of the graduate students and only 7% of the faculty rated the circulating books collection as poor. Larger numbers of both faculty (89%) and graduate students (96%) rated the journal collection as good or excellent. None of the faculty or graduate students responding to the survey rated the library's journal collections as poor.

Like other groups in the survey, CHEM faculty and graduate students appear to use a limited range of materials, primarily just books, journals, and – to a lesser degree – conference proceedings. Faculty and graduate students reported insufficient experience with special collections, slides, newspapers, documents, maps, music, videos or the Center for Research Libraries collections to evaluate them. The same held true for faculty and graduate students with respect to the library's stand alone and networked CD ROMs, – 82% of faculty and 69% of the graduate students reported insufficient experience with the library's stand alone CD ROM databases to evaluate them. Eight-five percent (85%) of the faculty and 78% of graduate students also reported insufficient experience with the Library's networked CD ROM databases.

### Use & satisfaction with Library services

Ninety-eight percent (98%) of graduate students reported "insufficient experience" with the BAKER service to evaluate it, 41% of them were likewise unfamiliar with Interlibrary Borrowing Services (IBS), and another 82% were inexperienced with the Berkeley/Stanford Cooperative Program. Forty-one percent (41%) of the responding faculty rate Interlibrary Borrowing Service as good or excellent, but 67% reported insufficient experience with BAKER document delivery services to evaluate them.

Faculty are somewhat more satisfied with Circulation and Reference Services than are graduate students (57% v. 56% for Circulation Services, 50% v. 48% for Reference Services) rating them as either good or excellent. Forty percent (40%) of graduate students reported "insufficient experience" with Reference Services to

evaluate them. A majority of both faculty and graduate students reported "insufficient experience" with Instructional Services to evaluate them, but 44% of the total faculty respondents and 23% of graduate students rated them as good or excellent. Majorities of both faculty (54%) and graduate students (60%) were unfamiliar with NRLF services.

Like their counterparts in other departments, most faculty expressed little interest in several of the proposed new fee based library services. Seventy-eight percent (78%) said they would rarely or never use an expedited library-provided document delivery service and 81% said the same for commercial fee for document delivery service. There was even less interest in these services expressed on the part of CHEM graduate students. Desktop access to information from outside vendors and publishers was something that 40% of faculty and 33% of graduate students reported they would use sometimes or often.

A majority of those who are remote users of library resources report searching the library's online catalogs (77% of faculty, 89% of graduate students), browsing Melvyl® Table of Contents databases (61% of faculty, 77% of graduate students), accessing journal article databases on Melvyl® (83% of faculty, 95% of graduate students), and searching the WWW (83% of faculty, 95% of graduate students). Only a quarter of the faculty and 18% percent of CHEM graduate students report they search the Library web remotely either sometimes or often.

Seventy percent (70%) of graduate students rated the library's hours as good or excellent and 7% rated them as poor.

## Summary – Free-text Questions

FACULTY – Chemistry

No. of surveys returned: 27

(48% return rate)

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Note: Numbers following specific comments indicate the number of times the comment was made.

### **1.B. Please describe any recent trends or changes in scholarly communication ... describe how the Library could help you integrate these changes into your teaching or research.**

- Online journal access
  - Maintain a web site listing all online journals (or those listing titles & abstracts) ordered by discipline.
  - Online access to journals will obviously increase in importance and we need to facilitate faculty/student access.
  - Since many journals are becoming available electronically, it would be a good idea to have access to such resources.
  - Journals going online and on CD-ROM. Staff to support faculty in using information technology in teaching and research must become a top priority.
  - ACS journals now online.

- Need to keep up access to electronic versions of journals, indices, etc.
- Greatly increased use of WWW for undergraduate instruction.
- Mainly, there are more journals, especially ones covering new, emerging fields and cross disciplinary areas.

**3.E. Any specific suggestions for prioritizing quantity or quality of services?**

- Most important: a complete journal collection & electronic databases such as CC that allow me to track journal articles of interest in an efficient way.
- Longer hours.
- Larger budget.
- Security -- missing books.
- Rapid shelving.
- Too much is in NRLF.
- Better access to Chemical Abstracts online. I now subscribe but academic users can connect only after hours. Would be convenient to access this data at any time.
- Interlibrary Services should be given top priority, to lessen the impact of journal cuts and reduced acquisition of new books. /
- Staff to support faculty in using information technology in teaching and research must become a top priority.

**5.B. Which electronic resources have you used the most?**

- CC (8)
- MELVYL (7)
- GLADIS (4)
- Crossfire (Gmelin) (2)
- INSPEC (2)
- E-journals via Physics Library homepage
- ERES trial system for course reserves
  
- Prefer speed of electronic (5)
- Less likely to miss things with electronic.
- Prefer downloading capability of electronic.
- Electronic are best for searching; print are best for browsing. (3)
- Electronic are easier and more convenient (3)
  
- Prefer print because I can find it more easily. (3)
- Prefer print; it doesn't crash and it's convenient -- need both
- Prefer print but it depends on the resource

**9. Qualities most important in a library or information service supporting scholarly research?**

- Comprehensiveness (10)
- Access (5)

- Fast (5)
- Availability of journals is absolutely essential. (4)
- Convenience (4)
- Accuracy (2)
- Archival
- Connected (to other libraries, electronic resources, etc.)
- Easy
- Efficient
- Items on shelf
- Librarian
- Online access
- Reliability (2)
- Up to date (2)
- User friendliness
- Zero or no cost to me

#### 10.A. Unmet library needs?

- Collections
  - Continued erosion of journal and book collections.
  - Limited subscriptions to new, important journals.
  - Growing numbers of journal cancellations threatens comprehensiveness. Eliminating duplicate subscriptions between Berkeley libraries threatens convenience.
  - I am fundamentally concerned about the long term impact of budget cuts on journal holdings and the book collection.
- Branch Library Services
  - Combine Chemistry and Physics Libraries?
  - I would ask that the term "branch libraries" be dropped. The topical libraries are as important as the General Library.
  - Better support of "branch" libraries; my "branch" is just like a "Main Library" to me; treat branches exactly as if they're spread out Main Libraries.
  - Subject expert librarians in the branch libraries are lacking.
- A head of the University Libraries that understands how to generate money from any and every source that is available.
- Please, please, please give us abstracts in CC!! This would be the single most useful thing you could do for use chemists and, I assume, the community in general who are using CC.
- Find a study hall for undergraduates.
- Logical placement of journals in the stacks, i.e. easy to find, alphabetical, not requiring a computer look up.
- Get fully into the computer age and take the faculty with you.
- This library could provide faster and more comprehensive access to electronic versions of journals.

## GRADUATE STUDENTS

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No. of surveys returned: 50

(30% return rate)

Note: Numbers following specific comments indicate the number of times the comment was made.

### **1.B. Please describe any recent trends or changes in scholarly communication ... describe how the Library could help you integrate these changes into your teaching or research.**

- Online journal access
  - ACS journals have started appearing online immediately. It might be nice to offer access to these journal editions.
  - More and more chemistry journals are publishing electronic editions, many of which present papers before the print publication date. Electronic subscriptions – and the computer and printing facilities to read and print papers – would be highly useful. Even better, though perhaps less practical, would be a Berkeley "site subscription" so the journal could be accessed from any terminal.
  - Trend to online journals is particularly useful. Especially those that are full text online ... Library should endeavor to have online versions of all paper journals.
  - Most scientific journals are now available online (not just table of contents, but entire article). Subscription to the service, along with 24 hour a day remote access would greatly help.
  - Most journals I consult are available freely in full-text as pdf or postscript on the WWW.
  - Journal texts/images of full pages available on the Internet – would be great if the library could pay for subscription once and everyone could use them, but I don't think that that's allowed.
  - Many Chemistry (and other) journals are now on the Web – it may be useful to have access to this resource through the library.
  - Journals online.
  - To subscribe to journals online which are available for a fee over the internet and have available in the library.
- The trend in Chemistry is to transfer print indexes to computer-searchable indexes, such as CAS Online and the Beilstein WWW server. This cuts library subscription costs (Editor's Note: !!!) and speeds research. Journals are also being duplicated on disk, but paper versions are still often more useful and imminently portable!
- Good integration of electronic search.
- Increase in online pre-prints made available on the internet. Potentially more communication will be online than in journal publications, requiring more computers at typical libraries.
- Online display of abstracts and publications. Frequent use of email instead of mail.
- Within Chemistry, much communication is done over the Internet. The library could help me integrate these changes by becoming experts in finding topics on

the Web, online or electronic catalogs. The library should purchase computers and software that allows the best and fastest access of the Internet. The training given to graduate students should equip them to use the Internet and should familiarize them with how the Library is able to help.

- More terminals to print articles off the web.
- The library plays an important role on (sic) my research work. Most of reference books I want around found in library.

### 3.E. Any specific suggestions for prioritizing quantity or quality of services?

- Availability of books/journals
  - Most important to me ... is the timely appearance of journal issues. Too often, they appear months after printing, if at all. I generally use interlibrary services and non-printed resources rarely, if at all, but that's probably most related to my field of study
  - The most important resources and services are related to having printed materials available. I need journals and books, book series to be available. I can find everything with a rudimentary indexing system
  - Big problem: actual journal (most recent issues) are not available! They are somehow delayed and access of the most recent papers is limited!
  - Although online services are clearly the latest trend, there is no replacement for on site services – especially printed journals and books. I am very comfortable with computers of many types, and am younger than 30-years old, so this suggestion is not coming from a yearning for "the good old days". I think that one of the primary functions of the UC libraries is to provide a location where faculty and students can meet and discuss research – this discussion is better aided by books than by computers (computer services tend to individualize).
  - I sometimes have a hard time locating the journal volume I need. If it's not been re-shelved promptly. There seems to be a significant time lag between when an item is removed from the stacks and when a staff person re-shelves it ... it's the one thing the staff can do that really serves library users and keeps the library functional. I see this problem mainly at branch libraries.
  - I have noticed that there is a long delay between the time when journals are released, and when they are available on the shelves. If anything could be done about this, it would be greatly appreciated.
  - It would be nice to actually find the books where they are supposed to be. Often I have to hunt them down on tables, desks & temporary shelves.
  - 24 hour access to a wide range of scientific journals.
  - Current journals very important.
- NRLF
  - NRLF takes much too long; for retrieval of a Chemistry journal, my colleagues and I routinely must wait 3-4 days. This is not useful when one is planning an upcoming experiment.
  - It would be really nice if one could call NRLF and have a staff person look up data on specific publications, e.g. about 3 months ago, I was working on a grant application and needed to know the title & ending page of an article. I knew the journal, pub. Year, author, starting page, etc .... Plus the call number and barcode, but still had to make a special trip to Richmond to get

two pieces of information that someone easily could have given over the phone in about 5 minutes.

- NRLF isn't delivered to departmental libraries.
- It is a very inconvenient process to always have to request Chemistry journals from NRLF. There appears to be plenty of shelf space in the Chemistry Library stacks for these journals, or at least some.
- Hours
  - Not having access (after hours) to all the books is sometimes an inconvenience.
  - Short hours of Main Library (and Moffitt) aren't compatible with schedule. (2)
  - Much research goes on during times when school is not in session (i.e. between Spring and Summer). It would be nice to have at least some expanded hours and weekend access. (2)
- GLADIS/MELVYL
  - In Chemistry, with so much information published daily, key is to quickly find relevant journal articles and books. Ideally would be able to search all journals and books with one command/interface.
  - Having more literature contained in the Current Contents database might be nice (if it went back before 1989).
  - More important services: online databases (i.e. MELVYL, Science Citation Index, GLADIS, etc.)
  - MELVYL online catalogues very useful but MELVYL is too slow at the moment. Perhaps a faster computer = benefit to entire UC.
  - MELVYL & GLADIS important.
- Copy service for journals – most important; better than this would be a computer systems where journal articles could be copied to disk and read at patrons own computer.
- Science Citation Index has a major problem. You can only search within a particular year and have to repeat the searches for each year. This means it is difficult to use. Also, SCI should be online.
- Students working in library are poorly trained, rarely can they help with small tasks.
- I'd like to be able to conduct all library business at the departmental library.
- I did not know that there were faculty seminars for computer search skills, networked CD ROM databases or a Library Web. Please advertise these more and improve their quality so the words gets around – if done well, these could be useful. GLADIS and MELVYL are clumsy – more work should go into a user friendly set of commands, a menu driven article search and clearer organization of the databases.
- Lesser used journals could be cancelled, provided there is good/easy way to get specific references/articles. Current system is too slow/too much paperwork.
- Electronic database access is very important.
- Interlibrary Services – faster

#### **5.B. Which electronic resources have you used the most?**

- MELVYL (16)
- CC (15)
- GLADIS (11)
- INS (8)
- Beilstein Crossfire (4)

- MELVYL journal article databases (2)
- Citation index (2)
- Medline (2)
- CD ROMs
- Would like Chem. Abstracts Metadex
- NRLF database
  
- Prefer electronic; faster. (12)
- Prefer electronic; easier to use. (8)
- Prefer electronic; remotely accessible. (7)
- Prefer electronic; searchable. (4)
- Prefer electronic; less paper. (3)
- Prefer electronic; can download lists via email. (2)
- Prefer electronic; more thorough, can't miss anything.
- Prefer electronic; portable.
- Prefer electronic; easier to copy and edit later.
- Prefer electronic; easier to organize and file articles for future use.
- Prefer electronic; cross referenced across entire collection.
- To find articles, electronic databases are by far faster. Downloading the entire article (with figures) is not possible (as far as I know) so I photocopy directly from print. If there was a way to go directly from a database search to a computer printout, that would save a huge amount of time. I would pay 2X or more the price of a photocopy the same article (sic).
  
- Prefer electronic; updated constantly.
- Prefer electronic; cover wider range than print.
- Prefer print; I don't really care how I get the info, but I like to end up with it in print, so I can file it for later use.
- Print is still essential for some older materials.
- Prefer print; can read it everywhere (even on a toilet ... excuse me).
- Prefer print; better order in folders.
- Prefer print; I don't like to stare at computer screens.
  
- Prefer to find things electronically (speed) but prefer print copies (more convenient for reading in the future). (3)

**9. Qualities most important in a library or information service supporting scholarly research?**

- Comprehensive/exhaustive (18)
- Up-to-date (12)
- Fast/speed (11)
- Accessible (9)
- Easy to use (7)
- Well-organized (7)
- Efficient (6)
- Available (4)
- Helpfulness (4)
- Friendly (3)
- Convenient (2)
- Copiers in order (2)

- Knowledgeable (2)
- Searchable (2)
- Accuracy
- Assistance
- Availability of journals
- Comfortable
- Depth
- Detailed
- Excellent
- Flexible
- Good copiers
- Internet access
- Journals
- Knowledgeable librarians
- No red tape
- Online journals, online journals, online journals
- Open
- Professional
- Quiet (carpet – quiet and ambience)
- Remote access
- Responsive
- Robust search engines
- Volume
- Well-indexed
- Well-kept

#### 10.A. Unmet library needs?

- Availability of books/journals
  - Buy more reference books.
  - Don't understand why numerous journals & books are inaccessible at night/locked up.
  - Some volumes are used with extremely high frequency. If it is evident this is the case, more copies must be available. (2)
  - When journals are taken away to be bound, it wreaks havoc on our research. Neighboring libraries could help cover each other.
  - Chemistry Library is slow in getting new Chemistry journals.
  - Chemistry Library is very slow in reshelving journals.
  - Chemistry book stacks should be accessible to graduate students at all times, just like the journals are.
- GLADIS/MELVYL
  - Less archaic user interfacing for searching MELVYL, etc.
  - Replace GLADIS – can't even cross search author w/title, while that feature is readily available on MELVYL.
  - For heaven's sake, change the name of MELVYL or GLADIS so I can remember which is which (maybe a male name?).
- Staff
  - Chemistry librarians don't seem that knowledgeable but physics do.
  - Informed, competent Circulation staff.
  - The librarians in the Chemistry Library are often rude and when they help you, they act as if they are granting you a huge favor by doing so.

- Copiers/printers
  - Copier conditions ... Higher quality xerox machines – in copying journal articles critical detail is occasionally lost due to poor copy quality. (3)
  - The ability to print journal articles off the computer would be useful.
  - Centralized credit copy system (copying charged to home departmental account).
- I'd like to be able to turn on lights in the dead of night so that I can see what I'm reading.
- I cannot repeat enough times that there is a big difference between 100 scholars who work all by themselves at a computer terminal at their own homes, offices/cubby holes and 100 scholars who convene at a central location that we call a library. There are many things that computer searches and indexes make very easy, such as Current Contents on MELVYL, however, the computers do not (I find) help colleagues form a better team (I refer to library services, not to email which obviously helps researchers interact).
- Creation of a scholarly, quiet atmosphere.
- The Chemistry Library is a zoo. Undergraduates use it as a social study place. It is supposed to be an area of quiet study/research, not a clubhouse!!
- Map of what call #s are where physically
- It would be nice if more of an effort was put forth for electronically indexing/abstracting older information.
- In the Chem dept we have access to the library after hours, but apparently no other grad students have access to their libraries after hours. That would be useful to them.
- Browsing in Main and Moffitt would be easier if call number subject headings were posted (i.e. TR – Photographic Art, QD – Chemistry, RS – Imaginative literature)
- Database of UC/UCB publications online.
- Off hours centralized access to libraries (sometimes we need to find an article/book at odd hours of the day/night).
- The process of checking out a recent issue of Science or Nature in the Chemistry Library is ridiculous – way too much red tape. A bar-coded sticker on each one might save time.
- We are now in the information age. The library could be our guide, or could become a museum. UCB libraries have a great opportunity to set the standard for academic libraries around the world. Invest your resources in connecting the school to the internet and you will make a lasting contribution to higher education.