

Regional Accrediting Agency Reports

Library and Information Resources 5

OVERVIEW

The following chapter outlines how the Lee and Hunter Libraries strive for excellence in furthering the mission of Brigham Young University.

The Harold B. Lee Library and Howard W. Hunter Law Library support university objectives by focusing on building collections and providing services that support a broad university education through intensive degree-related study and original research. The libraries provide rich information resources and opportunities for students to develop lifelong learning habits.

Of all the wonderful buildings that we have on this campus, none, I believe, is as important as the library. A library is the very heart and substance of a university. Without access [to] vast quantities of information, neither faculty nor student can do an accurate job. It is the foundation of research. It is the source of information, both old and new. It is a place for the ever-present challenge to dig for knowledge beyond that which is given in the classroom.
President Gordon B. Hinckley, Chairman of the Board of Trustees

5.A Purpose and Scope

DESCRIPTION AND ANALYSIS

The Harold B. Lee Library and Howard W. Hunter Law Library are vital to BYU's teaching and learning environment. Library programs reflect a deep commitment to the vision articulated by President Gordon B. Hinckley by providing opportunities for students to extend learning experiences beyond the classroom. Library programs are anchored firmly in university values and guiding principles as stated in institutional documents such as The Mission of Brigham Young University, The Aims of a BYU Education, and BYU's Institutional Objectives.

The Lee Library recently reviewed and updated its mission statement to ensure consistency with the university's direction. The current library mission statement reads as follows:

The mission of the Harold B. Lee Library is to assist individuals in their quest for perfection by providing information resources and services that support education, encourage learning, and promote spiritual and intellectual growth.

The library accomplishes this by doing the following:

- Serving as a center of learning where students and faculty actively engage in study and research;
- Using technology to extend access to library resources and services;
- Selecting, acquiring, organizing, preserving, and providing access to scholarly information related to the university's curriculum and research programs;

- Assisting and instructing students and faculty in finding and using scholarly information available at the university and elsewhere;
- Supporting lifelong learning; and
- Fostering scholarly communication.

The libraries support university objectives by focusing on building collections and providing services that support a broad university education, intensive degree-related study, and original student and faculty research (RE 5.2). The libraries offer instructional programs that provide students with information literacy skills in support of formal educational experiences and in preparation for lifelong learning. In addition, the libraries make digital collections available to learners everywhere, making friends for the university and its sponsoring church.

The Harold B. Lee Library serves all undergraduate and graduate programs at the university with the exception of law school graduate students, who are served by the Hunter Law Library. The conscious decision to consolidate library services into one central facility has guided collection and service policies over the years. Since library services are deeply interwoven with the Office of Information Technology (OIT), this chapter will highlight OIT contributions to library-related accreditation standards. But because OIT services are also integrated with almost every aspect of the university community in developing and supporting the technical infrastructure essential to a twenty-first-century university, OIT contributions are also highlighted in Standard 8 and mentioned throughout this report.

The Lee and Hunter Libraries offer a wide variety of information services for students and faculty. These services, coupled with strong collections, distinguish the libraries as learning centers on campus, attracting over 15,000 students and faculty daily during fall and winter semesters. Students come to the library for various reasons, as detailed in a rigorous usage study conducted during 2001. This study verified that the libraries' quiet study areas, comprehensive research tools, and numerous computers are vital to undergraduate and graduate students alike (RE 5.14).

Access Services

Book circulation, one of the libraries' fundamental services, is high. Table 5.1 reflects BYU's ranking as twenty-eighth in this category among the 113 research libraries in the U.S. and Canada that comprise the Association of Research Libraries (ARL). BYU libraries offer a document-delivery program that regularly brings unsolicited praise from faculty who make online requests to have items delivered either physically or electronically to their offices.

Students as well as faculty make frequent use of the online interlibrary loan request service that accelerates delivery of materials. By effectively using technology, the Lee Library has an average interlibrary loan turnaround time for books of 1.15 days and fewer than 24 hours for electronic articles. Our delivery is third best among Greater Western Library Alliance (GWLA) institutions. The Hunter Law Library has turnaround rates of 1.4 days for books and 1.2 days for articles. ARL rankings for interlibrary loan services, as detailed in table 5.1, reflect the fact that BYU borrows slightly more items than it lends, but compared with other research libraries, BYU ranks near the median in number of materials loaned.

For a number of years the libraries have offered electronic reserves to facilitate student online access to assigned course materials. Electronic reserves outnumber traditional print reserves by 3 to 1 and were accessed over 150,000 times during 2004. In that same year, 63

courses using the university's online course-management system integrated electronic reserve materials with the system to provide students with a single point of access for course-related content. By fall 2005 all courses offered through the university course-management system linked directly to the library's electronic reserve system.

Reference and Information Services

Reference service is provided at nine subject-related desks in the Lee Library and one desk in the Hunter Library. Typically each desk is staffed by student assistants and staff employees with professional subject librarians providing backup. Professional librarians, many with an advanced degree in their subject specialty, also provide one-on-one research assistance by appointment and through e-mail. The total number of reference queries fielded at library reference desks places BYU high in ARL rankings (16th), reflecting the success of staffing multiple service points near related research tools and collections (table 5.2).

In February 2005 the Lee Library participated in the Wisconsin-Ohio Reference Evaluation Program (WOREP) study to measure the effectiveness of reference service provided at reference desks. Findings showed that reference personnel at the Lee Library satisfied 72.5 percent of patrons' requests in helping them find exactly what they wanted. BYU was the top scoring library among the 116 institutions that participated in WOREP (RE 5.14).

Since 2001, BYU has participated three times in LibQUAL+™, a nationwide ARL-sponsored assessment of library users' perceptions of the quality of library service. This program asks students and faculty to express their personal expectations (both minimum and desired) for library collections and services and then to rate their own library's performance relative to those expectations on a Likert scale from 1 to 9, with 1 being low and 9 high. Results from the 2004 survey, as reflected in figure 5.1, indicate how patrons perceive the service they receive in the library ("Affect of Service"). The 2004 LibQUAL+ results showed that the Lee Library exceeded student and faculty minimum expectations in this category (RE 5.5). The Hunter Law Library achieved even better results, with student and faculty perceptions of Affect of Service approaching desired expectations. Although reference service is perceived to be strong, the library has set the goal of improving outreach efforts with students and faculty. Figure 5.1 also shows the overall results of the survey for the other ARL institutions that participated.

Librarians provide reference service via e-mail, accounting for about 3 percent of total reference activity. Between January 2002 and June 2005 the Lee Library provided an online "chat" reference service which gave students and faculty the opportunity to interact with a librarian in real time from any computer with Web access. Although this service was received positively, it failed to grow to supportable levels and was therefore discontinued.

Information Literacy

BYU's libraries operate one of the country's outstanding information literacy programs, teaching over 30,000 individuals each year. The libraries rank fourth among ARL libraries in numbers of students reached through information literacy sessions conducted by librarians (table 5.2). With a library unit embedded in both the freshman and advanced levels of University Core English composition courses, students learn fundamental as well as subject-specific research tools and strategies. Subject librarians also work directly with faculty to develop instruction sessions for courses with research- or library-based assignments. During 2004,

students came to the library 34,659 times to attend an instruction session. They came in a total of 1,875 sessions scheduled through 69 different courses.

LibQUAL+ results show that users turn to Google or other nonlibrary gateways more regularly than to library resources (either electronic or print). Information literacy sessions are designed to increase student awareness of academic research tools and teach strategies for locating and evaluating the quality of information resources. These skills translate into lifelong information-seeking behaviors.

Information literacy sessions are taught in technology enhanced rooms with workstations that enable hands-on learning experiences. An online tutorial supplements classroom instruction and provides transfer and advanced placement students with learning opportunities comparable to the on-campus University Core course program. The Lee Library has collaborated with the Division of Continuing Education to develop library units in online credit courses offered through Independent Study.

In February 2005, the Lee Library participated in the ARL project for the standardized assessment of information literacy skills (SAILS) (RE 5.14). In this outcomes-based assessment of the library's information literacy programs, students were tested on national standards reflecting their ability to determine the nature and extent of information needed and their ability to access, evaluate, and incorporate information into their knowledge base. On average, BYU students performed at or slightly above the level of the average student from 67 U.S. and Canadian institutions. BYU students were significantly above average in their ability to develop research strategies, a concept that is heavily emphasized in the BYU information literacy program.

Information Commons

In February 2004, the Lee Library joined with OIT in implementing an Information Commons in space formerly occupied by General Reference print resources and open study space. The Information Commons combines traditional reference service with enhanced computer hardware and software. The pedagogical value of collaborative learning is realized in this environment where students work together on technology-based course assignments. Signs designating it a "No Shhh" zone encourage lively interaction and collaboration.

From the day of its opening, the Information Commons has been heavily used, with as many as 800 students logging in at its workstations daily. Specialized equipment is in use an average of 15 hours per day. Checkout of digital equipment has tripled during the past year.

The Information Commons includes 52 collaborative learning workstations with furniture and computers in configurations that encourage group work. Two creative learning rooms with computers, projectors, and smartboard technology accommodate more advanced needs. Students from all disciplines can create sophisticated multimedia presentations using digital cameras and recorders available for checkout. Students also have access to six high-end digital editing stations and two workstations for Web design and scriptwriting. Trained library proctors are available to assist students with multimedia hardware and software.

Several nonlibrary entities were invited to provide services from inside the Commons area. Currently publications lab assistants tutor students in the preparation of manuscripts for publication and in strategies for locating appropriate publishing venues. Other university entities may offer services in the Information Commons in the future.

Web-Based Research Tools

Library Web sites connect students and faculty to a rich suite of research tools, such as online catalogs, Web-based indexes, electronic reference sources, and online reference assistance. Much of the Lee Library's Web space is dynamic, delivering content customized by subject librarians to meet the unique needs of students and faculty in the various disciplines. In addition, during September 2004, the libraries implemented a federated search engine that offers Google-like functionality for searching multiple indexes simultaneously. This tool, coupled with links to full-text electronic books and electronic journals, improves student success in finding needed information and connecting to it quickly. Distance learners access Lee Library resources through a library Web portal embedded in the university coursemanagement system. Several course-specific library portals designed jointly by the professor and the appropriate subject librarian have been developed.

The Lee Library Web page underwent a major redesign in September 2004 and was the focus of an in-depth usability study in spring 2005 (RE 5.14). Survey results indicate that the majority of users are satisfied with the Web page, but some changes were made based on data gleaned from focus groups and usability tests.

Summary

Strengths

- BYU libraries excel in both reference services and information literacy, ranking among the top 16 ARL institutions in each of these categories.
- Circulation and interlibrary lending programs are also strong.
- The new Information Commons delivers innovative services that support university aims to enhance both student-centered and lifelong learning. The Lee Library maintains dynamic online access tools that lead students to relevant information resources.

Challenges and Recommendations

The libraries face three service challenges:

- Focus on coordinating library services with those of other teaching and learning support programs. For example, the libraries must even more deeply integrate library services into the university's course-management system through a collaborative project (shared by the libraries, the Office of Information Technology, and the Center for Instructional Design) with the goals of increasing the number of course-specific Web portals within the course-management system and simplifying and enriching library support for a greater number of students.
- Expand the Information Commons to other areas of the Lee Library and enrich its services to include technology instruction offered in collaboration with OIT and other interested university partners.
- Embed information literacy instruction more deeply into the university's curriculum, including courses offered to students enrolled with the Division of Continuing Education.

5.B Information Resources

DESCRIPTION AND ANALYSIS

Book and journal collections are the most basic and most important resource of the libraries. The libraries' holdings have grown from 300,000 volumes in the early 1960s to nearly 3.5 million items available for student and faculty use today. The libraries' collections are broad in scope and deep in research value, and they reflect the university's degree and research programs.

General Collections

The libraries maintain strong collections in support of all university degree programs. In addition, a number of collections reflect institutional emphases, including business management, music, education, biology, engineering, Mormon studies, family studies, genealogy, and language competencies. For example, the Lee Library has the largest university library collection of genealogy and local history materials in the nation; only the church-owned Family History Library in Salt Lake City is larger. These collections support the university's family history degree program as well as the research efforts of genealogists from around the world.

The Lee Library has developed strong vernacular collections that support BYU's extensive language and area studies courses. Music students find a wealth of texts, audio recordings, and scores, including the world's largest viola music collection. The Lee Library's map collection is one of the most comprehensive in the Intermountain West and is heavily used by students and faculty in the social and physical sciences.

Special Collections

Complementing the libraries' general materials and adding to their research potential are the holdings of the L. Tom Perry Special Collections. Founded in 1957 with just over 1,000 books and 50 manuscript collections, Special Collections now houses approximately 300,000 books and pamphlets, 8,000 manuscript collections, and over 1,000,000 photographs. Among the diverse and important research materials in Special Collections are the Western Americana, Film Music, Motion Picture History, Renaissance and Reformation, History of Printing, Fine Printing, Nineteenth-Century Literature, Photograph, and Folklore collections.

Faculty and students alike are drawn to Special Collections by the opportunity to conduct research using original source materials. Faculty and researchers from many disciplines, but particularly those in humanities and social sciences, regularly note that they enjoy immediate access to source materials while their colleagues at comparable undergraduate institutions must travel great distances to locate such resources.

Digital Collections

The Lee and Hunter Libraries aggressively acquire and produce digital content to supplement traditional holdings and support student and faculty research efforts. Today's students rely on Webaccessible content and assume that library resources will be available at any time and from any location through online connections. Faculty expect ready access to digital library content to incorporate it into their teaching. To meet faculty and student expectations,

the libraries partner with the Center for Instructional Design (CID) and OIT to make library digital content available through the university's course-management system.

The Lee and Hunter Libraries have purchased or licensed access for students and faculty to more than 350 electronic research tools, approximately 7,000 online journals, and more than 100,000 digital books. Many of these resources are also licensed for use by alumni and community patrons. In addition to these commercially produced electronic resources, the libraries operate a robust program for digitally reformatting print, photographic, and multimedia materials, particularly those in fragile condition or those unique to local collections. Nineteenth-century diaries and maps reflecting the Overland Trails experience and digital learning objects from the History of Civilization course represent two strong examples of successful digitization projects. Within two years of its beginning in 2003, the digital library holdings have grown to more than 1.5 million individual objects in diverse collections ranging from the Museum of Art Collection to BYU theses and dissertations. The libraries plan to expand their multimedia digitization program, increasing the number and quality of digital formats that can be embedded in online courseware. The libraries will also continue discussions with OIT and CID to determine where to archive an ever-increasing number of digital learning objects and how to make them more accessible to faculty and students.

Collection Development and Management

BYU's library collection development program is designed to ensure that books, journals and other library materials acquired by the library correspond with the Mission, Aims, and Objectives of the university. Collection development policy statements guide all acquisitions and are updated as necessary to reflect changes to university programs. The libraries are in the process of rewriting all collection development policies. As they are completed, they will be made available to faculty through the libraries' Web sites.

Materials that support programs with high enrollment or those offering graduate degrees are collected at a more aggressive rate than programs with lower emphasis at the university. The actual selection of library materials is managed by over 30 subject librarians, each assigned to work with specific departments and colleges. Subject librarians collaborate with teaching faculty to acquire materials critical to each academic area.

Every BYU student and faculty member can also directly request library purchases through the Lee Library's online "Suggest a Book" service, with faculty having the added advantage of the faculty expedited delivery service. This service, coupled with acquisitions generated through direct librarian-faculty interaction, accounts for approximately 40 percent of the 45,000 items added annually. The balance of new acquisitions comes through approval and standing-order programs developed by librarians in consultation with their faculty and students.

Assessment of Collection Strength

Historically, the libraries have enjoyed unusually strong financial support from university administration. Even in lean years the library collection budget has received additional funding, and generous support from donors has allowed the library to build a collection that outshines the libraries of most predominantly undergraduate institutions. This has proven to be fortuitous in recent years as the university has placed increased emphasis on student mentored learning. As

undergraduate students are engaged with faculty in research at levels comparable to graduate programs at other institutions, the libraries' collections support this unusual paradigm. The strength of the libraries' collections is an outgrowth of the emphasis the church has always placed on education and lifelong learning as evidenced from this quote from the university's namesake, Brigham Young:

It is the business of the Elders of this church . . . to gather up all the truths of the world pertaining . . . to mechanism[s] of every kind, to the sciences, and to philosophy, wherever [they] may be found in every nation, kindred, tongue, and people, and bring it to Zion. Every accomplishment . . . every useful attainment . . . in all science and art belong to the Saints.

The strength of BYU's library collections can be assessed in terms of both quantitative measures and data on student and faculty satisfaction with holdings. The best quantitative measures are comparative and come from the ARL annual statistical report, which shows that BYU libraries rank among the top 50 research libraries in North America in most categories of collection data (table 5.3). Rankings are in line with BYU's strong focus on undergraduate programs and quality teaching. The high ranking of audio recordings reflects the strength of BYU's School of Music and an equally strong music library. The library's photograph collection was acquired through donation of several significant historical collections. As might be expected from the libraries' relatively low ranking in journals, faculty in some disciplines find the journal collection to be insufficient for supporting their teaching and research. The Lee Library has designated an additional 2 percent of the collection budget to modestly expand journal and electronic database collections in response to faculty and student requests and based on documented usage data. Future plans to implement processes to more carefully analyze collections in light of university programs, to track journal needs, and to involve faculty more deeply in reviewing collections will address any gaps that become evident.

The Lee Library considers the responses of its own students and faculty regarding collection quality to be even more important than data from national rankings. Results from the 2004 LibQUAL+ survey, as reflected in figure 5.2, indicate that in the area of Information Control (amount, variety, and ability to access materials), the Lee and Hunter Libraries exceed minimum expectations of students and faculty but fall somewhat short of their desired level.

LibQUAL+ data suggest that the libraries must place greater emphasis on assessing where collections fail to meet the needs of faculty and students. Subject librarians will be asked to conduct more frequent collection assessments. They will also be asked to increase outreach efforts to their constituent faculty. A newly organized communications team will assist subject librarians by preparing promotional materials that can be distributed directly to faculty and students, highlighting current library resources, how to use research tools more effectively, and how to communicate with the library to request improved collections.

In 2000 the Lee Library began to collect data reflecting the use of all print journals (RE 5.3). Subscription rates and usage data are factored together to generate cost-per-use data that inform decisions regarding retention or cancellation of journal subscriptions. Although faculty have been peripherally involved in this decision process, future workflows will include them more deeply. Usage of electronic journals is more difficult to monitor but is an area where the libraries plan to refine methodologies for future data collection.

Collection patterns in the future will likely place greater emphasis on electronic resources, including digital books and online journals. There will be some shift of resources from the purchase of books to journals, particularly in science and technology disciplines. Increasingly the libraries will rely on licensing access to content rather than purchasing materials that will be housed at the university. The libraries will collect fewer microfilms and fewer government documents but plans to continue acquiring manuscript and Special Collections materials at the same pace as in the past. Acquisition of these materials comes primarily through gifts and endowment funding.

Scholarly Communication and Institutional Repository

The libraries have partnered with the nationally sponsored Scholarly Publishing and Resources Coalition (SPARC) to support the development of new modes of scholarly communication that will improve access while reducing institutional costs for scholarly publications. As part of this movement, the libraries and OIT have jointly launched an institutional repository, which is a digital collection of the intellectual output of university faculty. One department is fully involved and others have expressed interest as a way of complementing the existing scholarly publishing model. Many faculty members see the institutional repository as a more permanent solution to the practice of self-posting research to the Web. Additionally, the Lee Library has become a member of several nationally sponsored open-access journal projects. Faculty members have expressed appreciation for the library's membership since it allows them to support emerging alternative modes of scholarly communication by publishing in open-access journals at no personal cost.

Library Catalog

The libraries place a high priority on having their collections completely and accurately cataloged for student and faculty use. Catalog records comply with the highest international standards for bibliographic description, and the Lee Library is not only a regular contributor but also a national leader in the national authorities databases for names (NACO), subjects (SACO), and bibliographic records (BIBCO). With increasing numbers of digital resources coming into the library collection, it is difficult to balance needs between traditional cataloging and metadata-related functions. The libraries must investigate alternative staffing and work-flow possibilities and reassign personnel appropriately. To ensure that needed materials are cataloged quickly, the Lee Library offers an online "fastcat" request service for students and faculty. This service is used, on average, 760 times per year.

Summary

Strengths

- Over the years, the BYU libraries have benefited from ongoing institutional budget support for collection development. This support came even in years when many libraries were forced to dramatically reduce materials acquisitions. As a result, outstanding library collections support the university's curricular and research programs.

- One area that enjoys endowment funding is the L. Tom Perry Special Collections library, an unusually robust collection in a wide variety of subject areas.
- The libraries' digital reformatting program is another strength which has developed as a result of funding from generous donors.
- The Lee Library takes pride in its contributions to national authorities databases and its high-level cataloging, which consistently complies with international standards for bibliographic description.

Challenges and Recommendations

The libraries have set several strategic goals for the continued strengthening of collections.

- Rewrite all collection development policies and make them available to faculty through the library's Web site
- Designate 2 percent of the collection budget to expand journal and electronic database collections in response to faculty and student requests and based on documented usage data.
- Continue to participate in national and international efforts to develop new modes of scholarly communication, including collaboration with the Office of Information Technology in refining the institutional repository model currently in place at the university.
- Continue to expand digital reformatting programs, placing new emphasis on audio and video formats that can be electronically streamed to classrooms, accessed through the online course-management system, and embedded in online courses.
- Determine the appropriate balance between traditional cataloging and metadata functions related to digital resources. Achieving this goal will become particularly important as the libraries and the Office of Information Technology implement the institutional repository and expand digital library collections.

5.C Facilities and Access

DESCRIPTION AND ANALYSIS

Between 1994 and 1999 both the Hunter and Lee library buildings were renovated with additional collection and study space, adding a total of 285,000 square feet. Today, the Lee Library has approximately 665,000 sq. ft. and the Hunter Library nearly 97,000 sq. ft. These large buildings reflect the university policy favoring centralized rather than branch library services. Student and faculty satisfaction with library facilities is evident in their consistently high use. It is also reflected in results of the 2004 LibQUAL+ survey, where user perception of "Library as Place," the facility and its overall ambience, was near the desired expectation for both libraries. (See figure 5.3.) According to the survey, students and faculty perceive library facilities to be comfortable, inviting, and conducive to study, research, and learning.

The libraries continually aim to maximize availability of their books and journals through a highly efficient shelving operation. Shelves focus on returning items as rapidly as possible after they are used. The ambitious standard to shelve all materials within 24 hours is consistently met or bettered throughout the year, even during the busiest weeks near the end of each semester. The Lee Library's extensive book repair program ensures future availability by repairing and preserving damaged materials. The library operates two repair labs, one dedicated to general

materials and the other to rare books and manuscripts. Broader responsibility for conserving library collections is assigned to a preservation team that formulates policies and procedures for emergency preparedness, disaster response, environmental controls, security, and care and handling of materials.

Facilities for Students

The libraries offer pleasant study environments in well-lit, open-seating areas with cherrywood furniture. The Lee Library offers seating for over 4,000 and the Hunter Library for nearly 1,000 additional users. With this combined seating capacity, approximately 16 percent of BYU's student body can be accommodated in the libraries.

Library facilities are designed to accommodate evolving study habits of twenty-first-century students who desire ready access to technology and often prefer to study in collaborative group settings.

The libraries have embraced technology as a powerful means of delivering scholarly information to the campus community by providing sufficient access tools and strong network connectivity crucial to library service. The Lee Library's 1999 building addition includes a floor grid that provides power and network connections every five feet in any direction. This grid currently supports 324 computer workstations near reference desks, 60 in Information Commons areas, 276 in library open access labs, and 100 in four technology-enhanced library instruction rooms. A total of 57 group study rooms have an average occupancy rate of 60 percent over the course of a semester, with nearly 100 percent use during peak periods of the semester.

Older areas in the building were remodeled to provide essentially the same level of connectivity as in new spaces. Wired furniture was installed throughout the Lee and Hunter buildings to facilitate student and faculty use of computers for accessing digital content. By 2004, both the Lee and Hunter Libraries offered wireless connectivity that reached into most major study areas within their facilities, and laptops are frequently in use in all study areas of the libraries.

In the Lee Library, four technology-enhanced classrooms equipped for hands-on instruction are heavily scheduled. Three similar rooms are available in the Hunter Library. A large technology-enhanced classroom adjacent to the Special Collections exhibition gallery provides a secure venue where rare books and manuscripts can be incorporated into lectures and presentations to students and library guests. In the Learning Resource Center there are four viewing rooms for classes using audio-visual resources. The Lee Library's 213-seat, technology-enhanced auditorium is a popular venue for both library-sponsored and university-sponsored lectures, symposia, film screenings, and large class instruction. Many of the outreach events held in the auditorium are captured on video for later broadcast on KBYU and BYUTV. Classroom and auditorium facilities in the libraries are popular resources for the entire university as well as for guests from the surrounding community.

Library facilities are fully accessible to students with disabilities. Aisle width and accessible furniture ensure ease of use for individuals with mobility impairments. An eight-workstation lab equipped with the latest assistive technology supports students with sight, hearing, or mobility impairments. On average, 60 students use the facility for a total of 1,700 hours each semester. Another lab provides quiet study space for students with learning disabilities. Both facilities are proctored in collaboration with the University Accessibility Center.

Facilities for Collections

When Lee and Hunter library facilities were renovated, one goal was to significantly expand shelving space for print materials. To help achieve this goal, compact shelving was installed in the Periodicals Room, Special Collections, and Government Information areas. The Lee Library houses over 98 miles of shelving with a capacity of over 5 million volumes. The Hunter Library has 12.5 miles of shelving and sufficient space to store over 500,000 books and journals.

Shelving in both libraries is secured to the floor in order to limit damage and protect life in the event of an earthquake. Standard security and book theft protection technology is installed in both libraries, and the Lee Library also has a sophisticated card access and video surveillance system that guards Special Collections and other sensitive areas. The 1999 building addition has environmental controls that protect collections by maintaining appropriate temperature and relative humidity.

A space audit conducted in early 2005 revealed that the Lee Library will fill its shelf capacity by 2012 (RE 5.5). The periodicals section, however, is already in crisis mode, reaching capacity during 2005. The Hunter Law Library has growth capacity through 2017. Several strategies are being pursued to address the situation, including remote storage of journal titles available electronically and investigation of a remote, high-density storage facility for seldom-used materials. It seems likely that such a facility would be shared with members of either the Consortium of Church Libraries and Archives or the Utah Academic Library Consortium.

Professional Associations and Consortia

Collaborating with other libraries through state, regional, national, and international associations is a critical strategy for both the Lee and Hunter Libraries. Among the many associations the libraries participate in are the American Association of Law Libraries (AALL), Association of Research Libraries (ARL), Consortium of Church Libraries and Archives (CCLA), Desert States Law Library Consortium, Greater Western Library Alliance (GWLA), and the Utah Academic Library Consortium (UALC) (see RE 5.11 for the complete list). Membership in these groups has resulted in improved services to students and better access to information through interlibrary loans, cooperative database licensing, and collaborative digitization. Additionally, consortia participation has fostered cooperative purchase agreements that enable the libraries to better leverage collection budgets and, in a number of cases, lower expenditures. These efforts supplement fundamental library programs by expanding access to scholarly information while at the same time minimizing costs.

Summary

Strengths

- “Library as Place” consistently receives the highest ratings in LibQUAL+ studies.
- Intensive use seems to evidence student and faculty satisfaction with library facilities.

- The libraries provide a large number of computer workstations in a variety of configurations and maintains both wired and wireless connectivity through most public areas of the buildings.

Challenges and Recommendations

- Continue to remodel and equip public areas to meet the growing demand for technology enhanced, collaborative learning spaces.
- Update strategic plan for managing collection growth and find solutions to the space crisis into the future.
- Plan multiple approaches to address space needs, including judicious weeding of paper journals for which digital copies are available and shelving of infrequently used materials in a dense storage facility remote from campus.

5.D Personnel and Management

DESCRIPTION AND ANALYSIS

BYU libraries enjoy unusually strong support from university administration in funding library collections and services. Library personnel are highly qualified professionals committed to service and excellence. In recent years the libraries have repurposed numerous positions to accommodate evolving personnel needs.

Library Personnel Resources

The Lee Library currently employs 118 FTE faculty and other professionals, 57 FTE support staff, and 215 FTE student employees. One full-time development officer from LDS Philanthropies is dedicated to fund-raising on behalf of the library. University Police assign one full-time police officer and 35 student employees to maintain security in the library. The Physical Plant allocates five full-time custodial managers and 40 student custodians to the library.

The Lee Library's strong cadre of professional employees and support staff is dedicated to providing the highest quality collections and services. Students benefit directly from the 66 FTE in Public Services who provide research assistance and instruction. The 47 FTE in Technical Services and Collection Development acquire and organize library collections, with an additional 26 FTE providing similar services in Special Collections. There are 13 FTE in the systems support group and 13 FTE associated with administration. These numbers are supplemented by a large number of students employed in the Lee Library.

ARL rankings, as shown in table 5.4, highlight BYU's practice of employing large numbers of student employees who assume responsibilities that other libraries typically assign to full-time support staff. Though student employees are well trained and function adequately in all areas of the library, frequent turnover presents a training challenge in maintaining quality library services.

The Hunter Library employs 9 faculty, 2 administrative, 3 staff, and 55 student employees who fulfill multiple functions. Again, a larger-than-usual number of student employees supplement and assist the efforts of full-time employees.

Both the Lee and Hunter Libraries have set strategic goals for improving their staffing. The Hunter Library hopes to add one full-time professional librarian in the near future. The Lee Library plans to continue an ongoing effort to reallocate positions to understaffed areas or emerging programs as employees terminate or retire. Many positions have been reassigned since 2000 to redirect resources to new programs, including electronic resources processing, information commons management, digitization programs, metadata production, multimedia production, library assessment, personnel management, communications, and public relations functions (RE 5.7).

Library Organization

The administration of the Lee Library consists of a university librarian, an associate university librarian, and three assistant university librarians. These administrative officers are responsible for setting the library's vision, mission, core values, and performance expectations. Reporting administratively through the associate academic vice president for graduate studies and research, the Lee Library is considered equivalent to a college at the university.

The university librarian serves as the library's chief executive officer and, in addition to his broad administrative responsibilities, directs the library's technology programs. He chairs the library administrative council, which is responsible for setting strategic plans, establishing librarywide policies, formulating budgets, allocating resources, and acting on recommendations from committees, task forces, and project teams. Council membership includes the university librarian, associate university librarian, assistant university librarians, library controller, the administrative assistant, department chair of library information systems, representative of the library faculty, and chair of the Library Support Staff Association.

The associate university librarian functions as the library's chief operating officer and directs the library's budget, personnel, physical facilities, and assessment programs. The associate university librarian also chairs the Library Coordinating Council, which is responsible for making broad operational decisions and coordinating library functions. This council serves as an important venue for deploying library goals, values, and expectations to all library employees through their department chairs. It includes department chairs, assistant university librarians and administrative assistants for personnel, budget, physical facilities, and communication.

Lee Library departments and employees are organized into three divisions: Public Services, Collection Development/Technical Services, and Special Collections. Each division is led by an assistant university librarian. Though each employee reports administratively through only one assistant university librarian, many fulfill responsibilities that span divisions. For example, subject librarians have both collection development and public service responsibilities (including reference and instruction), many catalogers provide library instruction, and curators are involved in reference activities.

Duties and responsibilities of Lee Library staff, administrative, and faculty employees are clearly defined in individual job descriptions. Annual performance reviews and planning sessions are held in which an assistant university librarian or the department chair evaluates employee performance. During these meetings employees articulate goals and administrators ensure that these goals are consistent with the mission and objectives of the library and the university.

All librarians at BYU are professional faculty (distinct from professorial faculty). Library faculty must obtain continuing faculty status (tenure) after satisfactory performance during a six-year probationary period. There is a formal review during the third and sixth year of employment

in addition to the annual performance evaluation. Faculty members are expected to demonstrate significant accomplishments in librarianship (specific job assignment, professional development, and creative works) and in citizenship (professional service in the libraries, university, community, and professional organizations). In addition to achieving continuing faculty status, library faculty are expected to move through a sequence of ranks, including assistant librarian, associate librarian, and senior librarian (RE 5.7).

Formal and informal training occurs within library departments under the direction of the department chair. The staff development officer sponsors training that applies to employees from more than one department. The libraries, in conjunction with the University Faculty Center, offer an extensive mentoring and training program for new library faculty.

As professional faculty, librarians are involved in scholarly and creative work that improves their expertise. During a typical year, approximately one-third of Lee Library faculty either publish or give formal presentations at state, regional, and national conferences. Funds to support their scholarly work are budgeted annually and administered through the Library Creative Projects Committee. Generous funding is also provided for faculty to travel to and participate in professional associations and scholarly conferences. Administrative and staff employees are likewise encouraged to be involved in professional associations, and they are eligible to receive travel funding. During 2004, 93 Lee Library employees (representing 53.5 percent of all faculty, staff, and administrative employees) received professional development support.

As a university benefit, all full-time employees may take BYU courses tuition free. Additionally, the Lee Library provides tuition assistance for selected staff and administrative employees who wish to pursue a Webbased master of library science (MLS) degree from other universities. Since 2001, 11 individuals have received tuition assistance, and 5 have completed degrees.

The Lee Library values open communication among its employees and broad discussion of professional and university issues. To strengthen internal communication and to facilitate unified progress toward strategic goals, the library sponsors three open forums: a monthly librarywide town meeting, a bimonthly library faculty meeting, and a monthly library collections forum. These meetings allow broad discussion of library goals, values, and expectations and provide opportunities for employee feedback. During the past three years, as these councils and meeting structures have been implemented, the library has experienced more timely resolution of operational problems, involvement of all library employees in key strategic decisions, and greater congruence between librarywide and individual goals.

Hunter Library

The administration of the Hunter Library includes the director, a deputy director, and five associate directors. Titles represent major areas of stewardship rather than separate departments. Those areas are Reference, Technical Services, Access Services, Information Technology, and Collection Development. The Hunter Library organization chart delineates the relationships. Faculty and staff serve in multiple areas of stewardship. The library employs nine professional faculty and two administrative and three staff members, as well as 55 student employees. Eight faculty members have both JD and MLS degrees.

The director of the library is a professorial faculty member who teaches substantive law courses in addition to directing the library. The director reports to the dean of the law school, who reports to the academic vice president.

Cooperation with Campus Community

The libraries value strong communication with the campus community as the basis for aligning library programs with the university mission and for meeting student and faculty information needs. To foster communication, the Lee Library participates on many university councils, including the Dean's Council, Faculty Advisory Council, University Curriculum Council, and General Education Council. The assistant university librarian for collection development/technical services sits on the University Curriculum Council to represent library interests as new academic courses and programs are implemented. Likewise, information literacy needs are addressed through the assistant university librarian for public services who sits on the General Education Council. Involvement with faculty is further strengthened through the Faculty Library Council, which is chaired by the university librarian and includes a faculty representative from each college. This group meets monthly to provide input on library programs. The university librarian meets regularly with the university Student Advisory Council to seek student feedback.

The libraries recognize that they can best meet the needs of students and faculty by collaborating with other campus units. In keeping with this objective, the libraries work closely with the Office of Information Technology (OIT), the Center for Instructional Design (CID), the Division of Continuing Education, and the Faculty Center. As a member of the university's educational resources group, the university librarian plays an important role in coordinating support services for teaching and learning.

With provision of ready access to scholarly information as one of their primary goals, the libraries work to leverage technology in every way possible. Deep collaboration between the libraries and OIT has resulted in a strong technical infrastructure and capable staff that are critical to an excellent teaching and learning environment. In recent years, the libraries and OIT collaboratively developed the user interface now used in the Information Commons and all open access labs. Similarly, the libraries and OIT jointly manage the servers and software that support many Web-based information services. The libraries and OIT operate on the philosophy that each organization should focus on what it does best and then cooperate with the other to improve information services for the campus community.

BYU's libraries and OIT are organizationally independent but collaborate on many services fundamental to the university's curricular and research programs. In fact, the close working relationship between the libraries and OIT has become one of BYU's strengths. It enables the university to rapidly adopt and integrate proven new information technologies critical to higher education in the twenty-first century.

Three OIT-managed open access computer labs that support 285 workstations are housed in the Lee Library, demonstrating how the two organizations work together to maximize convenient service for students. The Lee Library and OIT also collaborate in the Learning Resource Center, where analog audio/visual equipment is being replaced with technology that supports the growing demand for delivery of digital multimedia content. These programs, along with efforts to integrate library resources with the university online course-management system,

demonstrate the two units' commitment to support student learning both inside and outside the classroom.

Overall Library Funding

The Lee Library is funded almost entirely by university- budgeted resources. Figure 5.4 indicates that while the Lee Library's largest budget allocation is for personnel (52.6 percent in 2005), over one-third is allocated for collections (35.6 percent). University funding allocated for information technology and other capital equipment reflects an unusually strong commitment from university administrators to support library needs. As digital content expands and as the libraries stream digital multimedia to increasingly larger audiences, the need for increased digital storage capacity continually grows.

Library programs are also supported through endowment funds, gift monies, and limited business income. Endowment earnings help finance collection development (particularly in Special Collections), digital initiatives, mentored student learning projects, and accessibility lab equipment. Gift monies are used primarily for collections but also finance an increasing number of special programs and events, such as an annual book collecting conference and a popular film series where items from the Lee Library Film Archives are screened for both campus and local community patrons.

Funding for Collections

Both Lee and Hunter collection development programs are strongly supported by the BYU administration and the board of trustees.

As shown in figure 5.5, the Lee Library's annual budget allocation for collections (including books, journals, databases, and other materials) has increased by just over 6 percent each year since 2001. The Hunter Library collections budget has not grown as rapidly, but during the past two years the university has increased support for books and journals in the law library as well. Expenditures for journals and databases in the Lee Library make up the largest category of the collections budget. As expenditures for electronic resources grow, both book and journal expenditures feel the impact. Figure 5.6 reflects 2005 collection expenditures, with 72.4 percent spent on journals and databases and 22.1 percent on books.

Rapidly increasing prices make it difficult to sustain the libraries' journal collections. Electronic resources, such as commercially produced databases and texts, as well as locally digitized materials, carry a high price tag and demand a growing percentage of the libraries' collections budgets. Despite these challenges, strong university support allows the libraries to maintain and even modestly expand collections during a time when many research libraries have been forced to cancel journal subscriptions and reduce book purchases.

Even with strong budgetary support from the university, escalating costs have motivated the libraries to set goals to dramatically increase their collection development endowments. The Lee Library hopes to raise \$8 million for general collections, \$2 million for Special Collections, and \$10 million for digital content.

The ARL annual statistical report provides the best means of assessing the relative strength of BYU's support for library collections. Table 5.5 details all collection expenditures at BYU, including budgeted and endowment funds, as compared to the ARL median. It also

reflects the fact that in 2003 (the most current rankings available), BYU ranked near the median among ARL research libraries.

Summary

Strengths

- BYU libraries have been organized to encourage strong communication between the libraries and their various constituencies, as well as internally among library departments.
- Structures are in place to encourage input and discussion of ideas from students, faculty, and library employees at all levels and to foster professional and staff development.
- The libraries enjoy a positive working relationship with the Office of Information Technology and continues to cooperatively build and maintain technology-based programs and services that benefit the entire academic community.
- BYU libraries benefit from strong institutional budgetary support, as well as endowments to fund Special Collections acquisitions and digital reformatting programs.
- BYU libraries successfully repurpose positions as individuals retire or terminate.

Challenges and Recommendations

- Add to library endowments to supplement collection development and support digitization programs.
- Continue to reallocate positions to areas of greatest need; the Hunter Library will seek one additional full-time librarian.
- Work with OIT and CID to find resources to accommodate the ever-increasing storage capacity needs for digital library content and other learning objects used in online courses.

5.E Planning and Evaluation

DESCRIPTION AND ANALYSIS

In a 2004 address, President Samuelson reminded the university that preparing for the future requires both recognizing those things that must change and those things that should never change. The libraries seek to follow President Samuelson's directive by annually updating their strategic plans and setting tactical objectives that lead to appropriate change while remaining true to the missions of the university and The Church of Jesus Christ of Latter-day Saints.

The Lee Library's strategies for creating change are stated in a Web-accessible document titled *Moving Toward the Future* (RE 5.2). This document brings together the library's vision, mission, values, strategies, and goals. Long-term strategies and goals are set for a five-year period and are reviewed and updated annually. Each year, the library prioritizes a subset of goals that become the focus of activity for the next 12 months. Librarywide goals prioritized for 2005–2006 deal primarily with planning for future space needs and improving outreach services for students and faculty.

Strategic planning and goal setting for the Lee Library as a whole are the responsibility of the administrative council. An ongoing process that invites input and comment at all levels of the organization ensures that strategic plans and goals are widely disseminated to library departments and employees. After a series of discussions, held primarily during the spring and

summer terms, senior library leaders establish annual and multiyear goals for the library and its divisions.

Evaluation of Services and Collections

Establishing a culture of assessment in the Lee Library was one of the key objectives to emerge from the Lee Library's 2000 strategic planning process. Consequently, the Lee Library repurposed an existing position to hire an assessment officer. This process improvement specialist coordinates the collection and dissemination of library measures and leads specific assessment projects.

Traditionally, research libraries measured their quality in terms of collection size and expenditures, but recently the trend has shifted toward outcomebased assessments that gauge performance and improvement. The Lee Library's process improvement specialist is responsible for designing and conducting studies aimed at measuring the effectiveness of library services. Under his direction, the library conducts faculty and staff focus groups, formal and informal surveys, and one-on-one observations. In addition, students and faculty can express opinions and provide feedback at any time through the library Web site.

Both the Lee and Hunter Libraries have participated in LibQUAL+, the library service quality assessment tool sponsored by ARL in conjunction with Texas A&M University. The Lee Library participated in 2001 and 2003, then in 2004 and 2006 joined member libraries of the Consortium of Church Libraries and Archives (CCLA) in a consortia-wide LibQUAL+ assessment. Results led to changes in both strategic and operational directions in the libraries. For example, LibQUAL+ comments about lack of resources resulted in an annual budget allotment for new databases and journals. Feedback led to additional studies of reference service and the role of subject librarians, which in turn resulted in more direct interaction with students and faculty. LibQUAL+ concerns over noisy study areas resulted in establishment of both "Noise-Free" and "No Shhh" zones. (For more LibQUAL+ results, see RE 5.5.)

The libraries regularly seek formal input from students in library instruction sessions, and in early 2005 the Lee Library participated in the ARL project for the standardized assessment of information literacy skills (SAILS). Reference activity was also assessed in 2005 through WOREP, the Wisconsin Ohio Reference Evaluation Program. The Lee Library conducts usability tests as revisions and updates are made to the library Web page. Other formal feedback mechanisms are regularly developed to measure satisfaction with specific library programs.

An extensive resource usage study of the Lee Library was conducted in 2001–2002 at the request of the associate academic vice president for research and graduate studies (Harold B. Lee Library Resource Usage Study). Results of the study indicated that the Lee Library "continues to remain the 'heart of campus'" and contributes to the academic and social well-being of students, faculty, and staff (RE 5.14).

This study served as the foundation for establishing a Web-based statistical information system where critical library data are made available online and on demand. A wide variety of current and historical data related to utilization of collections, services, and facilities are reported through this system (RE 5.14).

The libraries continue to support statistical surveys administered by library consortia and national agencies. Changes in collecting and reporting methods have improved data accuracy and altered library rankings generated from the surveys. Detailed collection and use statistics are in RE 5.3 and RE 5.4.

Under the guidance of the process improvement specialist, the libraries conduct evaluations of work processes, including acquisitions, cataloging, and access services. Work flow was changed to ensure more rapid processing of books for students and faculty. The libraries have also established procedures for monitoring collection growth, evaluated alternative cataloging methods, studied space needs, reviewed the role of subject librarians, and analyzed reference service. There has been increased emphasis on subject librarian outreach and, through attrition and repurposing of positions, the number of subject librarians who interact directly with the university community is being increased.

Summary

Strengths

- BYU libraries have developed a strong culture of assessment, now integral to their organizational structure. They continue to assess programs and services through a variety of measurement tools that are both locally developed and nationally validated.

Challenges and Recommendations

Although the libraries have made significant strides in creating a culture of assessment, there is still room for improvement in several arenas:

- Establish procedures to collect standardized data on usage of electronic resources.
- Conduct collection assessments on a regular basis to ensure that the libraries are building collections appropriate to university needs.
- Monitor existing data regularly and incorporate data review more deeply into decision making processes.

GENERAL SUMMARY

Strengths

Information Services

- Strong reference, information literacy, circulation, and ILL programs.
- A new Information Commons to support collaborative student-centered learning.

Information Resources

- Strong collections that support curricular and research programs.
- Consistently strong institutional budgetary support.
- Endowments to fund Special Collections acquisitions and digital reformatting programs.
- Contributions to national authorities databases and compliance with international cataloging standards.

Facilities and Access

- Superb facilities that receive intensive use and consistently high ratings in LibQUAL+ studies.

- Many workstations in a variety of configurations and wired/wireless connectivity throughout buildings.

Personnel and Management

- Strong communication between the libraries and their constituencies.
- Positive relationship with OIT in maintaining technology-based services.
- Successful program of repurposing positions as individuals retire or terminate.

Assessment

- Strong culture of assessment using local and national measurement tools.

Challenges and Recommendations

Information Services

- Integrate more library services with other teaching and learning support programs, including increasing the number of course-specific Web portals with the university's online course-management system to include delivery of library content.
- Expand the Information Commons and increase technology instruction.
- Embed information literacy instruction deeper into the university's curriculum.

Information Resources

- Rewrite collection development policies and place them online.
- Allocate an additional 2 percent of collections budget for scholarly journals and databases.
- Participate in efforts to develop new modes of scholarly communication and refine the institutional repository.
- Expand the digital reformatting programs with added emphasis on audio and video formats.
- Determine appropriate balance between traditional cataloging and creation of metadata; then allocate resources accordingly.

Facilities and Access

- Continue to remodel and equip public spaces to accommodate technology.
- Establish a strategic plan for managing collection growth and find solutions to the space crisis.

Personnel and Management

- Increase library endowments for collection development and digitization programs.
- Continue to reallocate positions in the Lee Library to areas of greatest need and add one new full-time librarian to the Hunter Library.
- Plan and develop massive storage capacity for digital library content.

Assessment

- Routinely gather data on usage of electronic resources.
- Continue to conduct collection assessments.
- Incorporate assessment data review into library decision making.

Supporting Documentation

NWCCU Required Exhibits (RE)

- RE 5.1 University Libraries Policy
 - Online Information
 - Reference Materials
 - Exhibit #1—Hunter Law Library
 - Management/Economics Reference Materials
 - Other Reference Materials
- RE 5.2 Miscellaneous Policies
 - Moving Toward the Future
 - Digital Policy
 - Faculty Guide
 - Online Request Forms
 - Selected Step-by-Step Guides
 - Selected Research Guides
 - Selected Subject Pages
 - Lee Library Collection Development Policy Statement
 - Exhibit #2—Hunter Law Library
- RE 5.3 Circulation Statistics
 - In-house Use
 - Periodicals Use Statistics
 - Re-shelf Statistics
 - Exhibit #3—Hunter Law Library
- RE 5.4 ARL Statistics
 - ARL Inventory Statistics
 - Exhibit #4—Hunter Law Library
- RE 5.5 LibQUAL+ Summary (Spring 2001, 2003, and 2004)
 - LibQUAL+ Spring 2004 CCLA Summaries
 - Space Audit Report for Executive Board
 - Exhibit #5—Hunter Law Library
- RE 5.6 Collection Assessments Report

- ILL Journal Requests
Circulation Reports and Charts
Periodicals Cost per Use for 2004
PAA Survey Question 9
Exhibit #6—Hunter Law Library
- RE 5.7 Number and Assignments of Staff
Rank and Advancement
Exhibit #7—Hunter Law Library
- RE 5.8 Library and Information Resources Reporting Structure
Exhibit #8—Hunter Law Library
Lee Library Organization Charts
OIT Organization Charts
- RE 5.9 Lee Library Budget for 2005
Exhibit #9—Hunter Law Library
- RE 5.10 Faculty Vitae
Administrative Personnel Vitae
Exhibit #10—Hunter Law Library
- RE 5.11 Association and Consortia
ILL Reciprocal Agreements
Exhibit #11—Hunter Law Library
- RE 5.12 Electronic Course Reserve
Web Site Usage Stats—Guides and Resources
Electronic Database Usage Statistics
Web Site Usage Statistics
- RE 5.13 Computer Labs
Laptop Help
Printing and Wireless Access Information
- RE 5.14 Web Usability Study
WOREP Spring 2005
SAILS
2003 Internal Review Self-Assessment Document
Exhibit #12—Hunter Law Library



University Libraries
UNIVERSITY OF COLORADO BOULDER

Examples of University Libraries Evidence for Criteria 1, 3, 4, 5 of the North Central Association Higher Learning Commission Requirements for Re-accreditation 2010

CRITERION ONE: MISSION AND INTEGRITY

The organization operates with integrity to ensure the fulfillment of its mission through structures and processes that involve the board, administration, faculty, staff, and students.

Core Component C. Understanding of and support for the mission pervade the organization.

The first item of the Libraries three-part mission statement reads, “Be central to the University community’s discovery, communication, and use of knowledge by providing materials, information, and services that support the University’s mission.” All goals and objectives of the Libraries 2006 Strategic Plan emanate from that primary mission (<http://ucblibraries.colorado.edu/dean/strategicplanfinal.pdf>). Subsequent goals are closely tied to Flagship 2030.

CRITERION THREE: STUDENT LEARNING AND EFFECTIVE TEACHING

The organization provides evidence of student learning and teaching effectiveness that demonstrates it is fulfilling its educational mission.

Core Component C. The organization creates effective learning environments.

Because the library is every student’s “lab” for studying, collaborating, information-seeking, and researching, extended hours, up-to-date discovery tools, and a conducive environment are essential. For the first time in more than 30 years, a major renovation in Norlin Library will add a new 24-hour entry into a physical learning portal with facilities and services that respond to the needs students have been communicating for years and include a 15,050 square foot Learning Commons, 7,770 square foot Research Floor, and a new study space for graduate students. This renovation, scheduled to be completed in May/June 2009, is the first of five phases included in a program plan for a Norlin retrofit.

A space planning consultant will be engaged to update the program plan for the remaining stages, with the intent to initiate phase 2 on the completion of phase 1.

<http://ucblibraries.colorado.edu/learningcommons/index.htm>

Core Component D. The organization’s learning resources support student learning and effective teaching.

The Business Library facility had become inadequate for serving the information requirements of business faculty and students. It was expanded and renovated as part of the Business School’s major remodel. <http://ucblibraries.colorado.edu/business/index.htm>

The Preservation and Access Service Center for Colorado Academic Libraries (PASCAL) is a high-efficiency storage facility on the UCDHSC Anschutz campus funded by the Colorado Legislature to help reduce library operational costs for the Auraria Library at UCD, Denison Memorial Library at the HSC, UCB Libraries, and the libraries of the University of Denver. Valuable but low-demand research materials are stored in the temperature and humidity controlled environment to provide more usable space at the libraries' main sites. A second storage bay is now under construction. Materials are provided rapidly via courier upon request by researchers or via digital delivery to the desktop. The success of digital delivery in this context has led to an expansion of electronic desktop service for additional materials.

<http://ucblibraries.colorado.edu/about/pascal.htm>

Despite the Libraries ranking in the bottom of its AAU comparison group in terms of staffing, the Libraries takes an active role in the provision of and instruction for electronic sources. Through direct reference assistance, course-integrated instruction, information literacy initiatives, credit courses, and online guides, students are supported in their effective use of information technology. Because electronic access to information resources is so critical to student success, the Libraries collaborates actively with state, regional, and national organizations to leverage funding. Because the Libraries ranking is also in the bottom of its AAU comparison group in terms of collections expenditures, internal budget reallocations have been required for the Libraries to expand costly online holdings.

The Libraries is a state and national leader in the digitization of resources to enhance access, creating the metadata standard and architecture for the Colorado Digitization Project (CDP), and receiving several CDP grants for digitization projects, including Aerial Photography of Colorado, Ben Gray Lumpkin Folk Music Project, Building Colorado Story by Story: The Sanborn Fire Insurance Map Company, and Digital Sheet Music Collection. Many other projects are in-process or planned for the future.

<http://ucblibraries.colorado.edu/systems/digitalinitiatives/index.htm>

The University of Colorado Digital Library (CU-DL) is a gateway to digital collections from University of Colorado at Boulder Libraries and University of Colorado academic units, as well as digital collections from other institutions that use Luna Insight software. The University Libraries Digital Asset Library (DIAL—a subset of CU-DL) is a web site for University of Colorado at Boulder Libraries' digital collections.

Team technology rooms in the Norlin, Business, and Engineering libraries are popular among students and more are included in the Norlin Learning Commons, as well as new electronic classrooms. Upgrades to existing tech rooms and classrooms are also included.

The Libraries are now completely wireless.

Most course reserves are now provided electronically by the Libraries.

The Libraries built a key partnership with Information Technology Services for the Norlin Learning Commons - at

<http://www.colorado.edu/its/oneonone/oneononespring08.pdf>, scroll down to “A Word from Dennis Maloney: Norlin Learning Commons: Innovative Learning Spaces” (p.2)

The Libraries also partner with the Graduate Teacher Program to offer a Provost's Fellows Program that provides a semester long fellowship in the Libraries for graduate students who have an interest in some aspect of research librarianship. To date, at least nine Libraries Fellows are matriculating in schools of library and information science. <http://ucblibraries.colorado.edu/librarianship/fellowship.htm>

In a partnership with the Writing Center, operated by the Program for Writing and Rhetoric and located in Norlin Library, reference librarians work closely with the PWR first year writing classes, providing information literacy instruction and research support. <http://ucblibraries.colorado.edu/pwr/index.htm>

CRITERION FOUR: ACQUISITION, DISCOVERY, AND APPLICATION OF KNOWLEDGE

The organization promotes a life of learning for its faculty, administration, staff, and students by fostering and supporting inquiry, creativity, practice, and social responsibility in ways consistent with its mission.

Core Component C. The organization assesses the usefulness of its curricula to students who will live and work in a global, diverse, and technological society.

Based on a shared commitment to supporting and providing access to the scholarship of graduate students, the Libraries has partnered with the Graduate School to enable submission of and access to electronic theses and dissertations (ETDs) since fall 2004. ETDs provide a technologically advanced medium for expressing and disseminating ideas. The full text of dissertations produced at any campus of the University of Colorado system from 1997 to the present are available as free PDF downloads from the Chinook online catalog.

Core Component D. The organization provides support to ensure that faculty, students, and staff acquire, discover, and apply knowledge responsibly.

As a campus partner in the educational mission of the University of Colorado at Boulder, the University Libraries promotes information literacy through instructional programs that address the conceptual understanding of information, information retrieval, and information sources as well as critical thinking and analysis skills. The learning objectives are directly linked to the campus' Student Digital Literacy Goals.

Using a curricular-integration approach, University Libraries faculty and staff provide researchers with the conceptual understanding and technical skills necessary to:

- identify the ways in which knowledge is disseminated, organized and acquired;
- access the wide spectrum of information resources made available to the campus community;

- locate needed information through the construction and implementation of search strategies; and
- critically evaluate retrieved information and information sources in all formats.

Current University Libraries information literacy initiatives include:

- course-integrated research seminars for Program for Writing and Rhetoric (PWR) first-year courses
- RIOT @ CU BOULDER (Research Instruction Online Tutorial) for PWR first-year students
- drop-in research assistance center for students enrolled in WRTG courses
- research instruction sessions to targeted courses throughout the campus curriculum
- credit courses taught in the College of Music, the Department of Geological Sciences, and the Department of Theatre & Dance
- information literacy program integrated into Department of Communication undergraduate curriculum
- course-integrated library sessions for Leeds School of Business Profiles in Business and Society Program
<http://ucblibraries.colorado.edu/services/Instruction/literacy.htm>

CRITERION FIVE: AS CALLED FOR BY ITS MISSION, THE ORGANIZATION IDENTIFIES ITS CONSTITUENCIES AND SERVES THEM IN WAYS BOTH VALUE.

Core Component 5a: The organization learns from the constituencies it serves and analyzes its capacity to serve their needs and expectations.

- Since 2001, the University Libraries has determined, monitored, and adjusted central goals through a strategic planning process that engages workers and constituencies through a variety of information-gathering mechanisms.
- Since 2000, the University Libraries has participated in a national assessment program (LibQual) and other assessment activities, including focus groups, surveys, and environmental scanning to determine user satisfaction, preferences, changing information behaviors, and interests.
- In support of the campus 2030 Core Initiative 3 to enhance graduate education and increase graduate enrollment, the Libraries focused its 2008 assessment efforts on an in-depth analysis of graduate responses to LibQual surveys. As a result, the Libraries has been and will continue to implement a series of actions, notably the new graduate study lounge included in the current Norlin renovation.
- The Libraries as an entity and through activities of various individuals is an active participant in campus governance and committee activities, and the Boulder Faculty Assembly sponsors a Libraries Committee. This participation informs library policies and procedures and provides two-way communication between the Libraries and its on-campus constituencies.
- Most Libraries outreach programming is based on collaborative efforts with campus and community groups and is offered to address identified campus and community interests.
- The Libraries is diverse by its very nature; and emphasizes and enhances that diversity through its staffing, services, collection, events, and exhibits.

UNIVERSITY OF COLORADO AT BOULDER

Examples of University Libraries Evidence for Criteria 1, 3, 4, 5 of the North Central Association Higher Learning Commission Requirements for Re-accreditation 2010

Core Component 5b: The organization has the capacity and the commitment to engage with its identified constituencies and communities.

- The current renovation in Norlin is designed to foster more personalized and focused connections between library staff and users, as well as among students and among students and faculty. The first floor Learning Commons is a joint project of the Libraries and Information Technology Services to create a learning library that integrates technology in a flexible innovative design to support the continuum of learning. The campus Program for Writing and Rhetoric is also integrated into the design for both space and service. The second level Research Floor provides centralized services and space for individual consultations, small group and classroom learning. The renovation is a direct response to user demand.
- Changes in staffing and budget allocations are also direct responses to user demands for enhanced and expanded electronic/digital resources.
- User requests for improved signage and communication are now met with the installation of a digital sign system and more participation in campus online communication venues.
- Exhibits and events develop many campus and community connections. Recent examples include several series of “dialog” events that were well attended by campus and community members and involved community organizations and science and research institutions as well as a variety of campus groups.
- Through the provision of online resources, the Libraries has dramatically expanded its user base both off and on campus and virtually supported the larger community.
- The Libraries consistently highlights expanded engagement and service in planning activities.

Core Component 5c: The organization demonstrates its responsiveness to those constituencies that depend on it for service.

- As a result of extensive and in-depth analyses of “selection to access” processes, the Libraries adopted new technologies, implemented new work flow procedures, and revised relevant policies in order to speed information resources to users.
- Through participation in OCLC and PCC, the Libraries contributes expertise to those national and international databases, thus serving researchers worldwide.
- Collaborates with Writing Program to foster skill development on campus.
- Participates in and seeks representation from campus groups. Partners with the Office of Faculty Affairs for Program Review in the Humanities and with the Graduate School and Graduate Teacher Program to participate in the Provost’s Fellowship Program to encourage graduate students to consider a career in research librarianship
- The Friends of the Libraries showcases resources to the community through its annual Information Day and CU Treasures events among others, all of which are consistently and highly attended by community members.
- The Libraries is a national leader in collaboration and partnership with other academic libraries and consortia. Examples include: PASCAL, the Colorado Alliance of Research Libraries (notably the shared collection development project), Prospector, national Interlibrary Loan activity, partnership with Emporia Library School Diversity Initiative, Great Western Library Association, Association of Research Libraries, and Center for Research Libraries global projects

Core Component 5d: Internal and external constituencies value the services the organization provides.

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- Routine analysis of Senior Survey library-related responses, frequent use of focus groups representing primary audiences, and administration of a national survey instrument to both evaluate current offerings and plan new services
- The Libraries is valued as a community resource for general and specialized information for personal, educational, and professional needs. As an example, the Business Library is frequented by the business community.
- Community members access the Libraries web site and online catalog, use resources onsite, attend events, and visit exhibits.
- Community members volunteer to support the Libraries as members of the Friends of the Library and as BookFinders helping students to locate items in the stacks.
- The Libraries receives fiscal support for major projects and special purchases from both the campus and the community and via its Friends group and the University Foundation.

Important note about the University Libraries:

In comparison to our ten most closely aligned AAU peer institutions, the University Libraries is ranked last in terms of collections, staff, and total expenditures. In fact the Libraries' staffing level is nearly half that of the next lowest ranked AAU peer library. Because this significantly low staffing requires considerable reliance on student assistants, recent cuts to the Libraries' student budget have posed serious challenges. (Please see separately attached comparison charts.)

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Chapter 7: **Library and Other Information Resources**

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MIT’s library and information resources are integral to our teaching, learning, and research. From inventing digital platforms that make subjects come alive, to developing new ways to share course content with the world, MIT harnesses the educational potential of technology in creative, dynamic ways. Subjects like “Visualizing Cultures” web images and scholarly commentary to illuminate social and cultural history, while our Technologically Enabled Active Learning classrooms use animated simulations to help students visualize concepts and carry out experiments. Reflecting our commitment to service to the nation and the world, our OpenCourseWare (OCW) site is a pioneering experiment in the sharing of knowledge. Through OCW, core teaching materials from virtually the entire MIT curriculum – over 1,800 classes – are published on the Web and made available to a worldwide audience for free.

These initiatives demonstrate that as MIT develops and adapts technology—and applies it to education—the daily experience of students at the Institute and around the world can be transformed. Within this environment, libraries continue to play a critical role. The MIT Libraries are realigning to better enable the design and delivery of information services based on the needs of a broadly networked interdisciplinary community. Informed and driven by a deep commitment to a service model, the MIT Libraries are well positioned to anticipate the emerging information requirements of faculty, students, and researchers. Through the development of new tools such as DSpace, an online repository, they have set a new global standard for how digital preservation can work in the life of a university. This chapter explores our work within the MIT Libraries and our IT infrastructure to ensure that our information resources meet the demands of MIT’s educational mission.

I. MIT LIBRARIES

The mission of the MIT Libraries is firmly aligned with that of MIT:

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The mission of the MIT Libraries is to create and sustain an intuitive, trusted information environment that enables learning and the advancement of knowledge at MIT. We are committed to developing strategies and systems that promote discovery and facilitate worldwide scholarly communication.

— MIT Libraries mission statement, adopted in 2003

This focus on quality, relevance, and distinction is manifested by a service culture that is constantly evolving to meet the needs of MIT's dynamic users. The ongoing goal is to provide immediate, quantifiable benefits to faculty and students in the Libraries' domains of responsibility.

Background

The MIT Libraries are centrally funded and managed, but physically dispersed. The system is composed of five large "divisional" libraries that map roughly to the five schools of MIT; two smaller, specialized branch libraries; a community space in the Stata Center academic complex; and several small, cost-recovered services units. In addition, the library system includes the Institute Archives and Special Collections, which have responsibility for the Institute's records-management program. Approximately 40 percent of the Libraries' collections are housed in two off-site storage facilities. For the most part, resource development, technical services, administration and budgeting, and technology support and service are centralized. In 2007, the Libraries assumed responsibility for managing Academic Media Production Services, providing the MIT community with support for video production and postproduction, online video, technology support for distance education, multimedia, and video conferencing.

MIT's physical collections total 2.8 million volumes. They exhibit the current and historical strengths of the Institute itself, reflecting MIT's deep intellectual commitment to "science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century." Serials, currently numbering about 23,000, dominate the collections and collection expenditures. In 1932, the MIT Libraries joined the Association of Research Libraries, becoming the first technically oriented member.

MIT's community of faculty, students, and researchers is highly mobile. At a time when no commercial services were available, the Libraries developed a tool known as Vera to provide a network-accessible, customized gateway to the licensed electronic databases, books, and full-text journals provided by the Libraries. Alternative discovery tools are also available through links within Barton, the Libraries' online catalog, and via full-text links from Google Scholar. A book- and- image scanning initiative is the latest addition to the Libraries digital library program. The Libraries' Technology Operations Group provides technical support to these digital library services as well as to DSpace@MIT. DSpace reflects MIT's tradition of responding to unsolved problems by building our own solutions. With support from Hewlett-Packard, we created the system as an online digital repository based on an innovative, open-source program we designed. The MIT research community produces a huge range of electronic documents, images, data sets, and other files. Through DSpace, MIT is housing over 32,000 items and keeping them readable, accessible, and searchable, effectively forever. Since its release as open source software in November 2002, DSpace has achieved widespread adoption at research universities throughout the world.

Leading-edge digital library research using grant and research funding is conducted by the Libraries Technology Research and Development Group. The unit collaborates extensively with faculty at MIT, the World Wide Web Consortium, technology companies, and other institutions to develop applications and address digital library challenges; projects include SIMILE, to enhance inter-operability among digital assets, and FAÇADE, to create preservation strategies for computer-aided architectural design documents.

The Libraries' endowment is for the most part restricted to the acquisition of materials and directed largely to the purchase of books and occasionally electronic back files. Recent resource-development

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efforts have focused on attracting expendable and endowed gifts to support targeted collection needs and such common research-library needs as conservation, rare-book programming and stewardship, and the digitization of valuable historical collections.

Service model

The Libraries' service model is based on a strong, talented staff of some 35 subject-specialized librarians who have responsibility for liaising with discipline-specific communities at MIT. This subject-based approach to building and maintaining relationships with faculty and students not only provides deep knowledge of activities and needs in the predominant departments, laboratories, and centers at MIT, but also informs the ongoing development of new services and tools to anticipate the emerging requirements of faculty, students, and researchers. Close collaboration with MIT's central information-technology organization is also an essential component of the Libraries' service strategy, as many of the services provided rely on the security and robustness of MIT's network.

Integration of print and electronic resources has been supported through services designed to deliver print materials such as articles and books directly to faculty desktops. During the last decade, the Libraries also have invested in staff, technology, and information content to meet new and emerging interdisciplinary needs, including needs for social-science data services, geographic information systems, bioinformatics, and copyright management.

Layered onto this service core are the goals of simplifying access to the Libraries' materials, services, and staff expertise, as well as instructing students in the skills needed to effectively find, evaluate, and use information to support their learning and research at MIT and after graduation. One tactic for accomplishing these goals is to develop self-teaching tools that provide community members, no matter where they are, with unmediated, 24/7 access to resources and services. Another tactic is to partner with faculty and other teaching staff to integrate lifelong learning skills into classroom and laboratory work.

Training to make effective use of resources

Following the recommendations of the faculty Task Force on Student Life and Learning in 1998, the Libraries developed a program to become more engaged with the teaching activities of the Institute. Formal instructional programs are now offered throughout the year, but most notably in January, April, and July. A technology- and video-enabled classroom has been developed, and courses are increasingly available around the clock on the Web.

In 2007 the Libraries received a grant from the d'Arbelloff Fund to integrate core scholarly research skills into the curriculum of 3.091, a popular undergraduate chemistry General Institute Requirement (GIR). Partnering with faculty members and the Teaching and Learning Laboratory, the Libraries have begun a multiyear assessment to determine the impact of embedding these learning modules into the curriculum. Results to date suggest that the scholarly research curriculum has improved students' online search skills. The Libraries are now approaching faculty who teach alternative chemistry GIRs to consider including this same curriculum in those courses.

This past academic year, library instructional staff began an initiative to assess the effects of library instruction related to other courses. The pilot included 154 undergraduate students involved in 14 different courses from a variety of disciplines. Preliminary results suggest that students benefited from the library research training they received:

- Fifty-six percent agreed or strongly agreed that the training enabled them to identify appropriate databases/tools to complete class projects.
- Sixty percent agreed or strongly agreed that because of the library training, they are more likely to experiment with unfamiliar databases or tools for different subject areas.
- Fifty-three percent indicated they had used what they had learned in other classes.
- Twenty-six percent reported using what they had learned for purposes unrelated to coursework.

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Other more routine surveys conducted by the Institutional Research arm of the Provost's Office confirm solid satisfaction rates among all key client groups of the Libraries. In 2005, in partnership with the Office of Institutional Research, the Libraries conducted their own major survey of faculty, undergraduates, graduate students, and research staff, with the goal of gathering information about the community's awareness of, use of, and satisfaction with the Libraries' services. Three priorities emerged for all library users: (1) improve access and navigation among and between print and electronic journals, books, and databases; (2) acquire additional years of electronic back files of heavily used digital information resources; and (3) develop a more systematic internal communication and marketing program. These findings contributed to a number of new service initiatives.

Recent improvements to space

Institute funds together with donor-supported investments have produced many improvements in facilities, including repairs to the Building 14 courtyard, a major project to repoint the Building 10 dome to protect the Barker Engineering Library, a much-desired 24-hour study room in the Hayden Building, substantial upgrades to security and the working environment in the Institute Archives, more shelving capacity in on-campus and near-campus facilities, consolidation of research and systems staff members into one location, a special-collections exhibition gallery, and a state-of-the-art preservation and conservation facility.

In 2007, the Committee for the Review of Space Planning committed to funding a three-year project to renovate the Dewey Library for Management and Social Sciences. This important initiative addresses many outstanding issues for this heavily trafficked facility and for its large, diverse community of users. Additional renovations at this scale are a high priority, and the Institute is considering its options.

Planning

The Libraries' planning efforts are firmly tied to the Institute's overall management and planning structure. The library director is a member of the Academic Council and the Deans Group, as well as a member of the faculty under the Rules and Regulations of the Faculty, and reports directly to the provost. The Faculty Committee on the Library System also provides oversight and guidance. In addition, MIT's visiting committees review and help shape the Libraries' activities and plans. Internally, the Libraries' organization is made up of four directorates: Administrative Services, Information Resources, Public Services, and Technology Research and Development. The Library Council, chaired by the library director and composed of the associate directors and department heads, coordinates the work of more than a dozen functional departments.

The Libraries' Strategic Plan (libstaff.mit.edu/lc/sp2005.html) guides current efforts. Planning is based on quantitative and qualitative assessment of existing services and resource provision, as well as methods for understanding user needs and views. A 2005 user survey referenced above was followed by another survey in fall 2008 to provide feedback on current services and future directions. In both surveys, 89 percent of respondents in all categories indicated being satisfied or very satisfied overall with the MIT Libraries, with the number of "very satisfied" respondents rising 4 percent in 2008.

The Libraries also invest in understanding user behavior by conducting usability tests of their online systems and carrying out ethnographic studies to assess user needs.

Collaboration

Crucial to the success of the Libraries is fostering and maintaining key collaborations, both externally and internally. At the national and international levels, the Libraries are institutional participants in the Association of Research Libraries, the Coalition for Networked Information, EDUCAUSE, the DSpace Foundation, the International Federation of Library Associations, the International Association of Technical University Libraries, the Council on Library and Information Resources, and the Ivy Plus

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Group. Locally, key partnerships with the Boston Library Consortium and the Harvard Libraries provide important professional relationships for MIT Libraries staff and valued resource-sharing benefits to faculty and students.

Within MIT, the Libraries' collaboration extends beyond the obvious core relationships developed with departments, centers, and laboratories through its service model. Working with Information Services and Technology, the Office of Educational Innovation and Technology, and OpenCourseWare, the Libraries provide leadership for the ACCORD initiative. ACCORD is designed to ensure that all campus providers of academic computing services work together in a cohesive and transparent manner to offer faculty and students seamless and responsive service. One initiative is the development of the Image Services website (web.mit.edu/teachtech/image.html), which provides a convenient, comprehensive list of various tools and services available for acquiring and using digital images. The design of new infrastructure and process workflow to support the key services that support the course content lifecycle—such as Stellar, OCW, and DSpace. Other ongoing initiatives include designing new infrastructure and workflow processes; clarifying the procedures for obtaining academic software; and reviewing policies and procedures relating to video production and management for courses.

The Libraries also participate in MIT's Council on Educational Technology, which oversees educational-technology policy; the Information Technology Strategic Planning and Resources Coordinating Council, which functions as the strategic coordinating body for information technology at MIT; and the Information Technology Architecture Group, which sets directions and makes recommendations for the Institute's information-technology infrastructure. Finally, the Libraries work closely with the associate provost and vice president for research, and with the MIT Press and *Technology Review*, to develop strategies for supporting the extended educational and research mission of MIT.

II. PROJECTIONS: LIBRARY

The Libraries' programs and financial planning in the years ahead will be affected by (1) the Institute-wide Energy and Environmental Initiatives; (2) the recommendations of the Task Force on the Undergraduate Educational Commons; and (3) MIT's growing international programs. Areas of future attention will include ongoing investments in library collections, contract complexities resulting from international collaborations, orientation programs for international students and visitors, tools for teaching, and technical infrastructure for the global delivery of education.

In fall 2008, the MIT Libraries initiated a planning process to consider options for revising their organizational structure. The expanded leadership of the Libraries believes that the MIT Libraries must realign in order to design and deliver information services that are based on the needs of a broadly networked interdisciplinary community. The initial phase of this effort—defining the desired future state—is well under way. An added sense of urgency to redesign the Libraries' organization has resulted from the Institute's current fiscal challenges. The Libraries will need to be creative and resourceful to continue supporting MIT's mission with reduced resources.

Digital Library Program requirements

The MIT Libraries have focused their digital library research interests primarily on the "born digital" aspects of information production, stewardship, and long-term preservation. To this end, the Libraries' digital library efforts are concentrated in such areas as tools development (Vera), digital archive functionality (addressing topics such as DSpace@MIT, MIT theses, and the MIT Press), information interoperability in the Web environment, and preservation strategies for proprietary works such as 3-D computer-aided-design systems. Donors have recently stepped forward to fund the digitization of portions of the Libraries' rare and unusual collections; these and other works are being scanned for inclusion in the

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Libraries' locally hosted digitized collections, where they will be shared with the Open Content Alliance, an international collaboration to build an open archive of digital texts and multimedia material.

Archival materials deposited with the Institute archivist are increasingly in digital formats that require specialized handling and attention, as do the video and sound recordings of important institutional events. MIT faculty are similarly interested in the capacity of MIT's Archives to appropriately manage prestigious faculty papers in the digital age. OpenCourseWare courses, MIT World videos, and various teaching courses that produce and use video content for educational purposes must be archived in digital form. Policies and practices are being revisited to ensure a coherent strategy for managing this growing corpus of important multimedia materials.

The Libraries must also accommodate ordinary faculty research output and teaching materials, such as visual images and data sets, that are increasingly produced in electronic and multimedia formats. Participation in national solutions for preserving these resources, along with peer-reviewed digital serials and journals, is essential to MIT's future.

Support for improved scholarly communication

Under MIT policy, certain aspects of copyright education, advice, and management fall to the MIT Libraries. As this legal and regulatory environment has increased in complexity, the Libraries have added capacity and partnered with the Office of the General Counsel to better inform, advise, and support faculty and researchers on the issues associated with copyright management and scholarly communication. With assistance from the Office of Sponsored Programs and the vice president for research, mechanisms have been developed to facilitate compliance with regulations regarding publication of certain sponsored-research results.

In March 2009, the MIT faculty voted unanimously to make their scholarly articles openly available. The implementation of the MIT Faculty Open Access Policy is the responsibility of the Faculty Committee on the Library System, with support provided by the Libraries.

III. OTHER INFORMATION RESOURCES

Information technology (IT) at MIT actively supports the Institute's academic mission. Our goal is for information technology to be fully integrated into living and learning environments, whether in the classroom, in the residence halls, or in communal spaces. For prospective students today, campus technology is a key factor in selecting a school; therefore, upgrading technology and integrating it into the educational experience are priorities for MIT. For example, the School of Humanities, Arts, and Social Sciences is exploring the potential of new media technologies to enhance education and research in the humanities. Through Hyperstudio, the school's Laboratory for Digital Humanities, the Global Shakespeare subject allows students to explore cultural differences in Shakespeare texts and performances from around the world. For *Hamlet* alone, there are more than 1,000 works of art, illustration, and films from which students can learn.

Managing the technological platforms and providing support for MIT's information resources takes place at both at the school level and centrally. The faculty-led MIT Council on Educational Technology (MITCET), reviews programs and sets high-level strategy for technology in this arena. MITCET's mission is to enhance the quality of MIT education by encouraging the appropriate application of technology, both on and off campus.

Many IT services are provided by our central IT organization, Information Services and Technology (IS&T). A number of more specialized systems and services are provided by IT groups in the Libraries,

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the Office of the Dean for Undergraduate Education, OpenCourseWare, and several schools and departments. These groups help us leverage technology as an academic tool to enhance the overall student experience and prepare students for what they will encounter in their chosen professions.

MIT is keenly aware of the need to provide coordinated support to the community. Several of the major programs currently under way across campus are highlighted below.

Office of Educational Innovation and Technology

Technology is frequently perceived as merely augmenting existing teaching and learning practices. In fact, it can alter the way that students process what they are learning, and consequently change the way they construct knowledge. Using interactive visual representations of astronaut motion and of protein molecules, to classroom clickers and wikis, MIT faculty are incorporating technology into their teaching in a variety of ways to support student learning. To accelerate these efforts, MIT's Office of Educational Innovation and Technology (OEIT), located within the Office of the Dean for Undergraduate Education, engages in exploratory activities to identify technology-based solutions for new modes of collaboration, production, and the sustainable delivery of educational resources and experiences.

As described in Chapters 4 and 5, OEIT not only acts as a conduit to communicate the availability of educational innovations more widely to faculty, but also facilitates the adoption of these innovations, wherever they may have been developed, to help improve teaching and learning at MIT.

OEIT focuses on three key areas: bridging research and learning, linking digital content to the curriculum, and fostering communities of innovation and practice. For example, through visualization tools used in Biology and Hydrology, the OEIT is transforming the research tools that faculty and researchers use daily into applications that support learning, thus providing early exposure to the research process. As demonstrated in its work with programs such as Visualizing Cultures and the Spoken Lecture Browser Project, the OEIT enables transparent and immediate access to image and video content from diverse sources, such as the Roche Visual Collection, Boston's Museum of Fine Arts, the Edgerton Archives, and MIT OpenCourseware.

OEIT is also helping MIT faculty explore educational opportunities with emerging technologies and innovative practices, such as Tablet PCs for collaborative learning; GIS Tools for spatial data analysis; high-performance computing for science and engineering education; as well as flexible learning spaces that incorporate intelligent combinations of situated, cyberspace, formal, and non-formal environments to support blended learning. More information can be found at: (<http://web.mit.edu/oeit/index.html>). OEIT's work over the past two years has involved 120 faculty and 110 courses. Tools developed for one class can often be expanded to others. For example, StarBiochem – a 3-D visualization tool that allows users to selectively view elements of a molecule, was first used in MIT's Introductory Biology course in the fall of 2006, and is now used by 800 students in three different Introduction to Biology (7.01x) subjects. = OEIT places particular importance on developing and supporting tools and applications for a wide range of courses that advance the recommendations of the MIT Task Force on the Undergraduate Educational Commons. Case studies and publications can be found at (web.mit.edu/oeit/browse/index.html).

OEIT receives strategic guidance from the MIT Council on Educational Technology and works closely with the Teaching and Learning Lab, the Office of Faculty Support, the Office of Experiential Learning, as well with IS&T and the MIT Libraries.

Access to IT resources

Through a rich array of computing resources, members of the MIT community can take advantage of educational technology, share information and programs, communicate with each other, and work together on problems and ideas in creative ways. The IS&T website provides information about many of MIT's resources, and IS&T encourages students to call or e-mail with questions and to visit the

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department during orientation and at events throughout the year. In addition, before arriving at MIT, incoming first-year students receive a letter recommending options for computer purchases. Although students are expected to acquire their own computers (and 96 percent do), the Laptop Loaner Program was initiated to ensure that all students have the computational resources to do faculty-assigned academic work.

Athena system

The Athena system is a centrally managed, campus-wide computing environment consisting of networked client workstations, servers, and printers available to MIT students and faculty to help them achieve their academic goals. This scalable and secure system provides:

- Electronic “course lockers” for storing personal and course-related materials
- Electronic tools for easily and securely delivering Web pages
- Software for students and faculty to use in doing coursework
- Software for communication among students and between students and instructors

In addition to standard compilers, Web browsers, and communications tools, Athena offers both cross-disciplinary and specialized applications, including FrameMaker, Matlab, Maple, Mathematica, Molecular Simulations, SAS, S-Plus, Tecplot, ArcInfo, ArcView, and Xess.

Policies regarding appropriate use of technology resources

MIT’s IT policies provide a framework for the responsible use of the Institute’s computing and telecommunications resources. These policies require compliance with relevant legal, contractual, and professional obligations whenever information technology is used. In addition, individuals using Institute resources may not interfere with the appropriate uses of information technology by others. The MIT Libraries likewise specify the appropriate uses of library resources and technology, and outline the standards of behavior expected of members of the MIT community and visitors alike.

IT policies also cover the privacy of Institute records; information security and preservation; the privacy of electronic communications; and the acquisition and use of third-party products and services. Institute Archives policies similarly address the access and use of Institute records and related equipment.

The Institute also has a responsibility to present clear guidelines on the proper use of all copyrighted materials, particularly digital ones, and to disseminate information on these policies. Working with the Office of the General Counsel, IS&T and the MIT Libraries have helped produce a unified, online source of information on copyright for the MIT community: Copyright at MIT (<http://web.mit.edu/copyright/>).

Evaluating IT effectiveness

IS&T takes seriously community evaluation of IT resources and has several mechanisms for gathering this information and using it to guide strategy.

Since 2002, IS&T has conducted a customer-satisfaction survey every 18 months. This survey is distributed to a random sample of the MIT population in order to collect objective data about what is working and what could be improved. While certain survey questions have changed as technologies have evolved, other questions have been kept consistent to track changes in users’ views over time. The most recent survey was distributed in October 2008 to approximately 1,500 faculty, staff, and students. IS&T received 605 responses—a robust 40 percent response rate.

When respondents were asked about their perception of IS&T services over the past year, 90 percent indicated that services had improved. Furthermore, the department’s overall satisfaction score rose from 4.79—on a six-point scale—in May 2002 to 4.93 in October 2008. Survey respondents were most satisfied with the professionalism and technical ability of the help desk, with the wired network, with IS&T’s ability

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to consistently keep systems running, and with IS&T's network-services operation overall. In 2003 and 2005, customers expressed dissatisfaction with the help desk; now, in a comparison with 10 other universities surveyed by a consultant, MIT's help desk ranks the highest.

While the 2008 survey showed across-the-board increases in satisfaction, the data also revealed some areas for improvement. Principal concerns for all users were the effectiveness of spam-screening methods (which were subsequently upgraded), the process for setting spam thresholds, the signal strength of the wireless network in certain locations, and overall remote access from outside the United States.³⁷

IS&T's higher ratings overall reflect concentrated efforts to improve three core services—the network, e-mail, and customer help. To address areas of current dissatisfaction, several projects are under way, including a new e-mail/calendaring solution, the rollout of campuswide VoIP (technology for delivering voice communications over Internet-protocol networks), and a full-scale overhaul of the wireless network infrastructure to one of controller-based 802.11n access points that can regulate their signal strength automatically. The satisfaction surveys help IS&T determine where needs are greatest, and they provide a systematic mechanism for gauging the department's effectiveness. We anticipate that the 2010 survey will show satisfaction rising in additional areas, while pinpointing weaknesses that still require attention.

To further guide our efforts, IS&T created a student advisory board, ISTAB, to gather input and feedback on services from student customers. ISTAB members raise issues directly with those responsible for particular services within IS&T. In addition, ISTAB engages with a wide variety of other student groups, including the MIT Undergraduate Association, Graduate Student Council, MIT Student Information Processing Board, Association of Student Activities, and student IT representatives from schools and departments. IS&T staff attend ISTAB meetings to respond to questions, make presentations, and facilitate the conversations.

IV. PROJECTIONS

Technology for managing course materials

MIT uses three primary services to support its course content lifecycle. MIT OpenCourseWare (OCW) is used for Web-based publication of virtually all MIT course content and is described more fully in Chapter 10, "Public Disclosure." DSpace, addressed earlier in this chapter, is MIT's institutional repository of online research materials, built to save, share, and search research documents that are in digital form (course materials, working papers, theses, conference papers, and more). Finally, Stellar is designed specifically to support individual courses at MIT, providing a framework for posting course content and other materials on the Web. In 2008-09 Stellar was used for over 80 percent of the classes at MIT.

Currently, these three course-content systems operate on independently developed platforms. Seeing the need for integration without compromising the separate objectives of DSpace, OCW, and Stellar, MIT launched the DOS (DSpace OCW Stellar) initiative. The goal of this initiative is to improve the effectiveness of MIT educational systems by providing a common infrastructure and processes that enable faculty to easily publish new teaching materials and easily use existing materials, while allowing students to access those materials using the technology medium of their choice. Key technology enhancements planned as part of this initiative include replacing OCW's aging content-management system, replacing or enhancing Stellar's current platform, providing enterprise infrastructure support for DSpace, and improving data interoperability.

³⁷ A summary of the changes in ratings from May 1999 to October 2008 can be found at <http://web.mit.edu/ist/survey/2008/changes-in-ratings.pdf>. For the complete report, see <http://web.mit.edu/ist/survey/2008/report.pdf>.

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MIT Student Information System

The MIT Student Information System (MITSIS) comprises more than 100 administrative systems that serve all of the student services at MIT, including registration and academic records, student financial services, academic departments, housing, and medical.

MITSIS provides information and curriculum planning tools to aid students and their advisors in selecting courses and planning for the upcoming semester and future years. Using MITSIS tools, students can search online for subject offerings that meet their interests and degree requirements. They can then select subjects for pre-registration and view potential class schedules to identify time conflicts.

Advisors can view advisee information online to learn about their students and prepare for their advising discussions. Information available to advisors includes each advisee's pre-registration subjects, academic record, status of registration, degree audit, student photo, and other biographic information. Advisors use this information to stay up to date on their advisees' progress and plans, and to help students map out their curricula and activities.

As described in Chapter 4, MITSIS is also being piloted by faculty and students for online evaluation of subjects at the end of each term. Over the next few years, MIT intends to move away from paper-based forms and toward a central system of online evaluation. Parallel efforts will be taken to improve data on the quality of teaching and the ease with which it is collected. The Office of Faculty Support (under the direction of the dean for undergraduate education) administers the Institute's subject-evaluation process. The office is using MITSIS to improve this process and to provide meaningful data for the intra-departmental and cross-departmental evaluation of MIT's teaching. Sixteen departments pilot the system, and more are scheduled to come on board in the coming year.

Envisioning a new student-information system

While MITSIS is meeting the day-to-day needs of faculty and students, it was designed nearly 20 years ago. It was originally intended primarily for administrative use, but today's students and faculty expect a more student- and faculty-centric system. To plan for needed changes, MIT initiated the Student System Vision (SSV) study in 2007. The dean for undergraduate education, the dean for graduate education, the dean for student life, and the vice president of IS&T are sponsoring this collaborative project led by Information Services and Technology.

Understanding the needs of all constituents who work with student systems is of the utmost importance and requires Institute-wide collaboration. The SSV project team hosted workshops, meetings, focus groups, and presentations that involved faculty, staff, and students from across the Institute. These activities tapped into MIT's collective intelligence to ensure an in-depth understanding of immediate needs and long-term expectations regarding student systems. An SSV Faculty Advisory Group with participants from MIT's Council on Educational Technology joined the effort, and an outside consulting firm facilitated the overall process. MIT wanted to ensure that the recommendations coming out of the study represent a broad consensus on where MIT would like to be—a true vision of student systems in the future.

In spring 2008, the SSV team presented its findings, along with a plan for implementing the next-generation MIT student-information system. The team's report is now being evaluated by various faculty committees and the administration. Additional planning and analysis are continuing, and the implementation likely will span many years.



Core Requirement 2.9 Learning Resources and Services

The institution, through ownership or formal arrangements or agreements, provides and supports student and faculty access and user privileges to adequate library collections and services and to other learning/information resources consistent with the degrees offered. Collections, resources, and services are sufficient to support all its educational, research, and public service programs. (Learning Resources and Services)

Judgment of Compliance:

In compliance

Rationale for Judgment of Compliance:

Executive Summary

The Texas A&M University Libraries offer a wealth of information resources to Texas A&M Health Science Center (TAM HSC) faculty and students. The expansive collection of resources of the University Libraries, coupled with the more targeted collections of the Medical Sciences Library and Baylor Health Sciences Library, provides a solid foundation for the diverse TAM HSC educational, research and service programs. The preferred format for information resources is electronic, so that they are available to students and faculty across the TAM HSC distributed campuses.

Institutional Response

The Medical Sciences Library (MSL) at Texas A&M University (TAMU) has served as the library of the Texas A&M Health Science Center (TAM HSC) since its beginnings as the College of Medicine within Texas A&M University. The growth of TAM HSC and its separation from the university led to the development of a formal agreement between TAMU and TAM HSC to clearly define and ensure established library services from the MSL and its parent organization within TAMU, the Texas A&M University Libraries (TAMUL). Through an Intrasystem Cooperation Contract (Agreement), the TAMUL provides a full complement of library resources and services to TAM HSC users regardless of their physical location. The contract establishes the annual TAM HSC financial support for TAMUL, an amount indexed to total TAMUL budget but which may not fall below a level of at least \$1,500,000. It also provides a cost sharing basis and process for developing collections as new TAM HSC programs are added [TAMU-TAM HSC Intrasystem Cooperation Contract]. The TAM HSC Institute of Biomedical Sciences and Technology, located in the Texas Medical Center in Houston, has also maintained membership in the Houston Academy of Medicine-Texas Medical Center, with its associated library service privileges, since the institute began. The TAM HSC Baylor College of Dentistry (TAM HSC-BCD) located in Dallas, has long been served by the Baylor Health Sciences Library (BHSL) in Dallas.

As one of the libraries under the Texas A&M University Libraries (TAMUL) umbrella, the Medical Sciences Library (MSL) serves as the anchor library for delivering resources and services to the Texas A&M Health Science Center (TAM HSC). The MSL has four physical sites and serves all schools, centers, institutes, campuses and students of the TAM HSC. The central administration of MSL and the TAMUL is located in College Station, with specialized onsite collections and services provided at campuses in Bryan, Kingsville and Round Rock.

Library Collections

The TAMUL offers a wealth of information resources to TAM HSC faculty and students, with collections spread across numerous disciplines spanning the life sciences, social sciences, engineering and the humanities. The following table charts the growth of the TAMUL collections over all subject disciplines.

Table 2.9.1 Texas A&M University Libraries Collection Growth Summary

Class	Description	2009 Holdings	2010 Holdings	2010 Net Additions	% Growth compared to 2009
A	General Works	12,143	12,286	143	1%
B	Philosophy / Religion	107,717	112,476	4,759	4%
C	Auxiliary Sciences of History	11,290	11,663	373	3%
D	History	134,464	138,157	3,693	3%
E	History America	61,022	63,099	2,077	3%
F	History America	56,855	58,333	1,478	3%
G	Geography Maps Anthropology Recreation	88,707	90,606	1,899	2%
H	Social Sciences	273,162	283,042	9,880	4%
J	Political Science	44,113	45,967	1,854	4%
K	Law	31,258	32,480	1,222	4%
L	Education	56,898	59,259	2,361	4%
M	Music	44,978	51,326	6,348	14%
N	Fine Arts	68,351	71,553	3,202	5%
P	Languages and Literatures	405,874	423,276	17,402	4%
Q	Sciences & Preclinical Sciences	280,984	289,284	8,300	3%
R	Medicine	55,773	58,567	2,794	5%
S	Agriculture	50,227	51,081	854	2%
T	Technology	197,599	204,147	6,548	3%
U	Military Science	21,701	22,424	723	3%
V	Naval Science	7,308	7,413	105	1%
W	Medicine (NLM)	18,093	18,748	655	4%
Z	Bibliography Library Science	32,463	33,012	549	2%
TOTAL		2,045,204	2,121,768	76,564	4%

Note: Above totals reflect LC & NLM holdings. They do not reflect other classification schedules (e.g. eResources, Gov Docs, Microform Collections)

TAMUL collections have continued an ambitious growth pattern over the past decade. With a 2010 volume count of over 4.6 million volumes, the greatest increase has been in electronic resources, with electronic books increasing by 68% between 2009 and 2010, and electronic journals increasing by 20%. TAMUL currently provide access to nearly 950,000 electronic books, over 101,000 electronic journals and over 1,200 databases [TAMUL Statistical Snapshot]. This expansive collection of resources provides a solid foundation for the diverse TAM HSC educational, research and service programs. The preferred format is electronic, so that they are available to students and faculty across the TAM HSC distributed campuses.

MSL collections have been built through varied input from a variety of user groups. Core lists of accrediting agencies for the TAM HSC professional schools play a foundational role in the developing and assessment of collections. In addition, recommended lists from the National Library of Medicine and other health profession associations are consulted to develop, update and evaluate the collections. As part of the MSL user-driven approach to collection development, TAM HSC faculty, researchers and students are encouraged and able to request additions to the collection through the MSL website, email, telephone and written hard copy suggestions. MSL collection development is guided by formal collection development policies and the MSL Information Resources Council, which includes all MSL librarians and regularly solicits input from TAM HSC content experts [TAMUL and MSL Selected Collection Policy Examples]. A carefully managed approval plan provides suggestions for print monograph additions to supplement user requests for collection materials. Whenever new degree programs are added, MSL librarians meet with appropriate faculty to determine the collaborative process that will be followed to identify and add appropriate information resources. MSL collections have followed the historic growth of the TAM HSC educational and research programs. The growth of specifically TAM HSC focused collections is charted in the following table.

Table 2.9.2 MSL Collection Growth Summary

Class	Description	2009 Holdings	2010 Holdings	2010 Net Additions	% Growth compared to 2009
Q-QR	Sciences	4,596	4,835	239	5%
QS-QZ	Preclinical Sciences	11,180	11,596	416	4%
W	General Medicine	2,106	2,218	112	5%
WA	Public Health	2,206	2,272	66	3%
WB-WW	Practice of Med - Spec Professions	12,616	12,968	352	3%
WX	Hospitals & Clinics	247	274	27	11%
WY	Nursing	166	378	212	128%
WZ	History of Medicine, Miscellany	632	638	6	1%
TOTAL		33,749	35,179	1,430	4%

Note: Above totals reflect LC & NLM holdings. They do not reflect other classification schedules (e.g. eResources, Gov Docs, Microform Collections)

The notable collection growth spurt in the areas of nursing and hospitals and clinics is due to the recent development of the TAM HSC College of Nursing and of a new healthcare administration program in the School of Rural Public Health.

The following detailed highlights provide a clear representation of the scope of the health sciences subject targeted resources that are tallied in the table above. These are available to students and faculty on all TAM HSC campuses through remote access:

- Nearly 950,000 full text electronic books, including targeted collections to meet the needs of Health Science Center students such as:
 - AccessMedicine
 - Access Pharmacy
 - Books@Ovid
 - Cold Spring Harbor Protocols
 - Current Protocols from Wiley
 - MDConsult
 - Merck Index
 - Psychiatry Online
 - Springer Protocols
 - Stat!Ref
 - Thieme electronic books collection
- Over 101,000 full text electronic journal titles from both major commercial and society publishers, including these of special interest to medicine
 - American Association of Cancer Research Journals
 - American Medical Association Journals, including complete backfile of JAMA and the Archives collection
 - American Psychiatric Publishing Journals
 - BioMed Central
 - British Medical Association Journals
 - Clinics (of North America) Collection from Elsevier
 - Elsevier ScienceDirect Journals
 - Informa Healthcare Journals
 - Lippincott Williams & Wilkins Legacy Archive Collection
 - Mary Ann Liebert Journals Collection
 - Nature Clinical Practice/Reviews/Academic Journals
 - Springer Journals
 - Wiley-Blackwell Journals
- Over 1,200 electronic databases, including these of special interest to medicine
 - MEDLINE back to 1950, including links to full text journal articles
 - Web of Science
 - SCOPUS
 - CINAHL Plus with Full Text
 - EMBASE
 - GIDEON (Global Infectious Disease and Epidemiology Network)
 - International Pharmaceutical Abstracts
- Numerous other types of combination online resources, evidence-based resources and point-of-care tools purchased for the TAM HSC students such as:

- AnatomyTV
- Clinical Pharmacology
- Cochrane Library
- Dynamed
- Epocrates
- Essential Evidence Plus
- Exam master (USMLE preparation online tool)
- Faculty of 1000 Biology and Medicine
- FirstConsult
- Global Health
- Henry Stewart Talks
- Lexi-Comp Drug Reference Tool
- MD Consult
- Natural Medicines Comprehensive Database
- Nursing Reference Center
- ProceduresConsult
- Protein Lounge
- Stat!Ref: ACP Pier
- UpToDate

Library Services

Facilities

MSL collaborates with other libraries and learning resource units that serve TAM HSC populations at all campus and clinical locations. Eleven separate libraries and learning resource centers have established a consortium, the TAM HSC Alliance of Libraries, to ensure information access to all HSC populations and to the librarians serving them [TAM HSC Alliance listing].

The units responsible for providing facilities and learning/information resources to support the teaching, research and service missions of the TAM HSC include the Medical Sciences Library, the Baylor Health Sciences Library, the Bryan campus Teaching and Learning Resource Center/Library, the Round Rock campus Teaching and Learning Resource Center/Library, the College Station campus Learning Resources, the Temple campus Learning Resources, The Scott and White Memorial Hospital Richard D. Haines Library, the Drug Information Library at Irma Lerma Rangel College of Pharmacy in Kingsville and the Houston Academy of Medicine-Texas Medical Center Library.

The following table summarizes the services available at the facilities mentioned in the paragraph above.

Table 2.9.3 Facilities and Services Summary

	Medical Sciences Library	College Station LRC	Bryan TLRC	Round Rock TLRC	Pharmacy Library (Kingsville)	Temple LRC	Richard D. Haines Library (Temple)	Baylor Health Sciences Library	Texas Medical Center Library (Houston)
Weekly Hours of Operation	119 hours	92.5 hours	168 hours	168 hours	45 hours	168 hours	168 hours	80 ^c hours	89 hours
Seating	625	141	98	50	4	56	104	140	247
Group/Indiv Study Rooms	12/29	20	16	14	4	10	2	2 ^c	8
Computer Workstations	68/15 ^a	13	41	5	4	20	35	41	54
Wireless Access	Y	Y	Y	Y	Y	Y	Y	Y	Y
Printers / Scanners / Photocopiers	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/N/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y
Audiovisual Equipment	Y	Y	N	Y	Y	Y	Y	Y	Y

^a MSL also provides 15 laptops available for checkout

^b Available through the MSL

^c Additional study space available 24/7 within BCD

A more complete discussion of facilities can be found in the report on Comprehensive Standard 3.8.1, Learning/Information Resources [Comprehensive Standard 3.8.1, Learning/Information Resources].

Staff

The MSL staffing includes 14 tenure track faculty, 3 non-academic professionals and 9 paraprofessionals plus a number of part time student assistants whose collective work hours are equivalent to 5 full-time workers. Each MSL tenure track faculty holds the terminal degree of practice, a Master of Library Science, from an institution accredited by the American Library Association. In addition, 43% of them also hold graduate degrees in academic or professional fields such as nutrition, public health and information science and advanced certificates in informatics. Five of the tenure track faculty also hold joint appointments within the professional schools served by MSL. Staffing levels at MSL are stable, having only a 4% turnover rate for each of the past three years. MSL staff are experienced and well-trained; the composite years of library experience represented by all MSL staff is over 230 years. A more complete discussion of staffing can be found in the report on Comprehensive Standard 3.8.3, Qualified Staff [Comprehensive Standard 3.8.3, Qualified Staff].

Information Resource Services and Instruction

To meet the needs of the distributed TAM HSC campuses, the Medical Sciences Library provides 24/7 access to online resources and access to services beyond the hours physical facilities are open and staffed. All electronic resources are available to TAM HSC whenever and wherever the resources are needed by means of a proxy server and authentication service.

Whenever an electronic version of a resource is not available, TAM HSC users can request that articles or book chapters be scanned and posted to a time-limited website for their retrieval. This “Get It for Me” service is tremendously popular [Get It for Me brochure]. Requests have risen steadily since the inception of the service in 2003, and services have been expanded to include retrieving books from the library stacks for users and sending them to faculty offices. Over the past four years (2007-2010) the Medical Sciences Library has delivered 45,155 scanned articles and retrieved 434 books for TAM HSC students and faculty—in addition to borrowing over 8,000 items from other libraries through regular interlibrary loan services. In addition to online access to the Get It for Me service, TAM HSC users have online access to the library catalog, course reserves, reference services via chat, subject guides, online tutorials and an Electronic Resources HelpDesk service.

The MSL provides a rich and varied array of instructional programs and aids in the use of the library and other learning/information resources to the TAM HSC, unaffiliated health care providers and the general public of Central Texas. Types of instructional programs span library orientations, open houses and information fairs, personalized one-on-one sessions, clinical point-of-care focused instruction, customized group instruction, contribution of modules within Health Science Center courses, and provision of Health Science Center for-credit courses. In addition, library faculty create a variety of online guides and tutorials and provide point-of-need instruction in the use of online resources and access problem resolution through an Electronic Resources HelpDesk service. The following table documents that the productivity of the MSL instructional program is above the national mean established by the Association of Academic Health Science Libraries (AAHSL).

Table 2.9.4 2009 MSL Instructional Program Compared to AAHSL National Mean

	Group Presentations	Participants in Group Presentations	Online Tutorials	Outreach Programs
MSL	481	3,886	38	20
AAHSL Mean	211	2,654	26	25

A more complete discussion of instruction can be found in the report on Comprehensive Standard 3.8.2, Instruction of Library Use [Comprehensive Standard 3.8. 2, Instruction of Library Use].

The instruction offered through the MSL outreach program is made possible through a contract with the National Library of Medicine (NLM) through its Regional Medical Library Program. The intended audience for this instruction is not only unaffiliated health care providers but also the general public of this Central Texas region. The goals of this instruction program are to promote the awareness of the biomedical information resources of the NLM and to improve access to both the professional and consumer information resources available from the NLM. The ultimate goal is to improve the quality of care provided to the citizens of Texas and to enable Texas health care consumers to make informed decisions about their health and health care; these instruction efforts specifically support the TAM HSC public service mission. MSL faculty provide training on NLM databases and consumer health information to individual health care providers, professional organizations and community groups. A more complete discussion of

instructional programs targeting unaffiliated health care providers and the public can be found in the report on Comprehensive Standard 3.8.2, Instruction of Library Use [Comprehensive Standard 3.8.2, Instruction of Library Use].

External Resource Relationships

The MSL and TAMUL provide access to library and learning resources not owned by the institution through membership in regional, national and international library organizations and service networks. These networks facilitate the sharing of biomedical information, provide access to online databases and library catalogs, provide efficient document delivery request routing and delivery services for interlibrary loan, and result in competitive pricing for electronic resources.

National Library of Medicine's National Network of Libraries of Medicine

The National Library of Medicine (NLM), a unit of the National Institutes of Health, is the biomedical parallel to the Library of Congress. The NLM maintains a hierarchical network of libraries across the United States in order to accomplish its outreach mission, to improve the health and health care of all Americans. NLM has divided the United States into eight regions, each with a regional library to coordinate activities within their region. These regional libraries subcontract with large academic health sciences libraries to provide outreach fieldwork and resources across the region. The MSL serves as one of the resource libraries within the South Central Region (NN/LM SCR), covering Texas, Arkansas, Louisiana, Oklahoma and New Mexico. In this role MSL serves as a resource library for a 22 county region in Central Texas. [MSL Outreach Data Sheet] This outreach fieldwork, which has been part of the MSL mission and strategic plan for over 30 years, directly supports the TAM HSC service programs. The annual subcontract amount of about \$15,000 covers the costs of MSL library staff to travel throughout the 22 county region to provide workshops on the use of various NLM biomedical professional and consumer health databases. These outreach efforts seek to provide in-service training for health care professionals and to enhance the health information literacy of health care consumers.

South Central Academic Medical Libraries Consortium

Founded in 1982, the South Central Academic Medical Libraries Consortium (SCAMeL) is a group of academic medical libraries from the five state region covered by the NN/LM SCR. MSL is a charter member of this group. The primary purpose of SCAMeL is to expand the access to biomedical information resources of its members and to support and facilitate the development and sharing of staff expertise across member libraries. The group has been particularly successful in achieving lower group pricing for key electronic biomedical resources, including journals, books and databases. Examples of electronic resources that have been purchased through SCAMeL include: AccessMedicine (McGraw-Hill); American Psychiatric Association's APPI (Psychiatry Online) collection; BioMed Central; BMJ Journals; Cold Spring Harbor Laboratory Protocols; Exam Master; Faculty of 1000; Mary Ann Liebert Journals; Natural Medicines Comprehensive Database; Protein Lounge and the Public Library of Science [South Central Academic Medical Libraries Consortium—SCAMeL Website].

Other Library Organizations and Consortia

MSL maintains accounts and obtains products and services from national and international document suppliers through AMIGOS Library Services (AMIGOS) and directly through OCLC. This relationship supports resource sharing and procurement of resources for TAM HSC users. MSL is also a member of the Association of Academic Health Sciences Libraries, the TexShare Electronic Databases Consortia, the Texas Council of Academic Libraries and the Texas Association of Health Science Libraries. Membership in these organizations allows MSL to participate in group purchases to bring a greater array of information resources to TAM HSC users.

Adequacy and Relevancy of Library Resources and Services

In addition to the input and participation of user groups in order to develop collections and services that are relevant to TAM HSC users, MSL regularly solicits feedback from users and benchmarks against external groups or institutions to assess the adequacy and relevancy of the resources and services provided.

The Medical Sciences Library Council is a committee of the Texas A&M University Faculty Senate. It serves as an advisory group to the MSL director and meets quarterly to provide direct feedback on library policies, collection directions and service initiatives [MSL Library Council]. Encouraged by the feedback and participation of student representatives on the Medical Sciences Library Council, the MSL director created a second advisory group, a Student Advisory Council in 2010. Composed of student representatives from all constituent colleges and TAM HSC units, the purpose of this Council is to provide feedback and make recommendations to the MSL director from a student perspective concerning the library as a place of study and research, library collections and services [MSL Student Advisory Council].

The MSL uses the LibQUAL+® survey to assess the effectiveness of its information and service efforts. LibQUAL+® is a user centered survey that asks respondents to rate a library’s performance in three areas: Customer Service, Information Resources/Delivery and the Library as a Place of Study. In addition, the survey asks for demographic, library usage and satisfaction information. Since its beginning in 2001, LibQUAL+® has been taken by 1.2 million respondents from 1,200 libraries in 20 language versions throughout the world.

The following table presents levels of satisfaction expressed by TAM HSC students and faculty in the 2010 MSL LibQUAL+® survey concerning information resources and access.

Table 2.9.5 Information Resources and Access

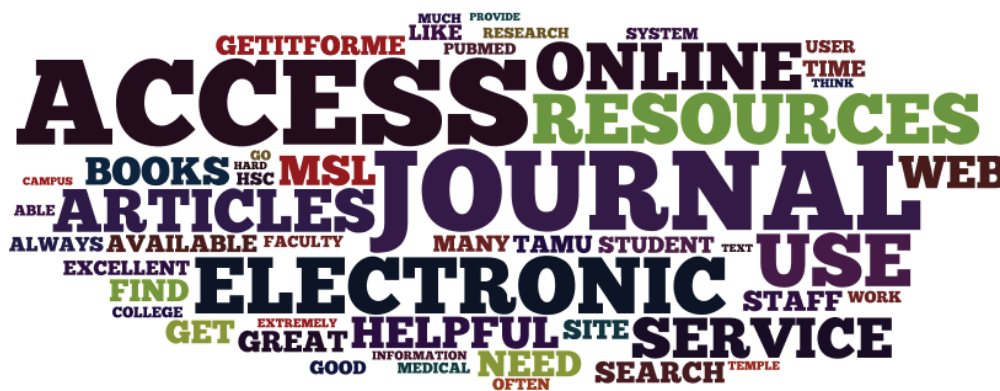
	Information Resources and Access				
	Adequate Print/Electronic Journal Collections	Library Website Enables Discovery of Resources	Electronic Resources Accessible from Home or Office	Easy to Use Access Tools	Modern Equipment that Supports Easy Access to Information
HSC Students	60%	44%	49%	61%	57%
HSC Faculty	44%	46%	109%	4%	57%

Table 2.9.6 How to Read Adequacy Gap Ratio (AGR) Results

AGR	Description/determination
AGR > 100%	Services/resources exceed user needs/expectations
0% ≥ AGR ≤ 100%	Services/resources meet user needs/expectations <i>The greater the score, within this range, the more closely the service/resource meets a user's perception of an ideal resource or delivery.</i>
AGR < 0%	Services/resources do not meet user needs/expectations

Using Wordle™ software this graphic displays most prevalent words in user comments on information resources and resource accessibility from the 2010 LibQUAL+® survey for the Texas A&M Health Science Center.

Figure 2.9.1 Information Resources and Access



External benchmarking was undertaken in 2010 with the Association of Academic Health Science Libraries (AAHSL), a consortium of 132 North American academic health sciences libraries. AAHSL has developed a “core list” of electronic resources. A comparison of MSL resources available with that list for 2009/2010 reveals that TAM HSC users have access to 95% of the core resources [AAHSL Core Electronic Resources].

Other Learning/Information Resources

In addition to the learning and information resources provided by the TAMUL, the TAM HSC provides other learning resources to students and faculty including the following:

- Continuing education/service programs
- Academic support services
- Information technology
- Physical facilities

Examples of Compliance

External benchmarking was undertaken in 2010 to provide another measure of the adequacy of the MSL collection. The Association of Academic Health Science Libraries (AAHSL), a consortium of 132 North American academic health sciences libraries, developed a “core list” of electronic resources. A comparison of MSL resources available with that list for FY 2010 reveals that TAM HSC users have access to 95% of the 62 core electronic resources. TAM HSC access available to these resources by type of resource follows:

- Access to 100% of the 15 AAHSL Core eBooks
- Access to 97% of the 37 AAHSL Core eJournals
- Access to 80% of the 10 AAHSL Core Databases

Supporting Documentation and Evidence:

- AAHSL Core Electronic Resources
- Comprehensive Standard 3.8.1, Learning/Information Resources
- Comprehensive Standard 3.8.2, Instruction of Library Use
- Comprehensive Standard 3.8.3, Qualified Staff
- Get It for Me brochure
- MSL (Medical Science Library) Library Council
- MSL (Medical Science Library) Outreach Data Sheet
- MSL (Medical Science Library) Student Advisory Council
- South Central Academic Medical Libraries Consortium—SCAMeL website
<http://www.tulane.edu/~scamel/index.htm>
- TAMU-TAM HSC (Texas A&M University -Texas A&M Health Science Center) Intrasystem Cooperation Contract
- TAMUL (Texas A&M University Libraries) and MSL (Medical Sciences Library) Selected Collection Policy Examples
- TAMUL (Texas A&M University Libraries) Statistical Snapshot



Comprehensive Standard 3.8.1 Learning/Information Resources

The institution provides facilities and learning/information resources that are appropriate to support its teaching, research, and service mission. (Learning/information resources)

Judgment of Compliance:

In compliance

Rationale for Judgment of Compliance:

Executive Summary

The Medical Sciences Library (MSL) serves as the anchor library for delivering learning/information resources to the Texas A&M Health Science Center (TAM HSC) to support its teaching, research and service mission. Eleven separate libraries and learning resource centers have established a consortium, the TAM HSC Alliance of Libraries, to ensure information access that is consistent across all HSC populations and the librarians serving them. In addition to physical facilities, the libraries provide a wide array of onsite and online resources and services. Onsite resources and services are provided at each TAM HSC campus and online resources and services are available wherever and whenever the TAM HSC user needs them.

Institutional Response

The Medical Sciences Library (MSL) at Texas A&M University (TAMU) has served as the library of the Texas A&M Health Science Center (TAM HSC) since its beginnings as the College of Medicine within Texas A&M University. The growth of TAM HSC and its separation from the university led to the development of a formal agreement between TAMU and TAM HSC to clearly define and ensure established library services from the MSL and its parent organization within TAMU, the Texas A&M University Libraries (TAMUL). Through an Intrasystem Cooperation Contract (Agreement), the TAMUL provides a full complement of library resources and services to TAM HSC users regardless of their physical location. The contract establishes the annual TAM HSC financial support for TAMUL, an amount indexed to total TAMUL budget but which may not fall below a level of at least \$1,500,000. It also provides a cost sharing basis and process for developing collections as new TAM HSC programs are added [TAMU-TAM HSC Intrasystem Cooperation Contract]. The TAM HSC Institute of Biomedical Sciences and Technology, located in the Texas Medical Center in Houston, has also maintained membership in the Houston Academy of Medicine-Texas Medical Center, with its associated library service privileges, since the institute began. The TAM HSC Baylor College of Dentistry (TAM HSC-BCD) located in Dallas, has long been served by the Baylor Health Sciences Library (BHSL) in Dallas.

The Medical Sciences Library (MSL), as one of the libraries under the Texas A&M University Libraries (TAMUL) umbrella, provides facilities and learning/information resources in support of the Texas A&M Health Science Center (TAM HSC) teaching, research and service mission, which is to advance the knowledge and technologies of our professions, and to bring Texans the finest in health education, promotion and care. The HSC mission is clearly supported in the MSL mission, which is to “improve health by providing the finest information resources and exceptional service to the Texas A&M worldwide community.” The MSL supports the TAM HSC service mission through its facilities and programs available across TAM HSC locations, through the delivery of learning/information resources and through educational outreach programs aimed at the general public and unaffiliated health care providers of the Central Texas region. To accomplish its mission, the MSL provides on campus and secured remote access to electronic information resources to the TAM HSC population wherever they are and whenever they need it.

Facilities

The units responsible for providing facilities and learning/information resources to support the teaching, research and service missions of the TAM HSC include the Medical Sciences Library, the Baylor Health Sciences Library in Dallas, the Bryan campus Teaching and Learning Resource Center/Library, the Round Rock campus Teaching and Learning Resource Center/Library, the College Station campus Learning Resources, the Temple campus Learning Resources, the Scott and White Memorial Hospital Richard D. Haines Library, the Drug Information Library at Irma Lerma Rangel College of Pharmacy in Kingsville and the Houston Academy of Medicine-Texas Medical Center Library.

The MSL serves as the anchor library for delivering learning/information resources to the TAM HSC. In order to effectively serve all TAM HSC schools, centers, institutes, campuses, faculty, staff and students, the MSL has four physical sites. The central administration of MSL is located in College Station, with specialized onsite collections and services provided at campuses in Bryan, Kingsville and Round Rock. In addition, the MSL collaborates with other libraries and learning resource units that serve TAM HSC populations at all campus and clinical locations. Eleven separate libraries and learning resources centers have established a consortium, the TAM HSC Alliance of Libraries, to ensure information access that is consistent across all HSC populations and the librarians serving them [TAM HSC Alliance listing].

The College Station MSL provides seating for 625 users, 12 group study rooms and 29 individual study rooms, a computer classroom with 40 workstations, 28 public workstations, 2 public printers, 1 public scanner, 2 photocopiers and a presentation practice room equipped with video recording capabilities. The MSL makes the following equipment available for checkout: 15 laptops/netbooks, 6 Kindle electronic book readers, a digital video camera and 2 Apple iPads. The entire second floor of the MSL is considered a quiet study area and is separated from the remaining library spaces through glass enclosure. Wireless network access is available throughout the MSL. The MSL is open 119 hours per week. Use of the MSL facility has increased steadily over the past several years. From September 2007 to August 2010 the use of the MSL facility increased over 42%.

The Teaching and Learning Resource Center/Library in the Health Professions Education Building (HPEB) at the Bryan Campus provides seating for 98 users, 16 group study rooms

(located throughout the building), a computer classroom with 36 workstations, 5 public workstations, and wireless network access available throughout the building. This library is staffed 8-5 Monday through Friday with 24 hour access for HSC students. One MSL librarian is home-based at the Bryan campus HPEB.

The Teaching and Learning Resource Center/Library at the Round Rock Campus provides seating for 50 users, 14 group study rooms (located throughout the building), a computer classroom, 5 public workstations, and wireless network access available throughout the building. This library offers 24 hour access for HSC students. One MSL librarian is home-based at the Round Rock campus.

The Pharmacy Library at Irma Lerma Rangel College of Pharmacy in Kingsville provides seating for 4 users, 4 public workstations and a public printer/scanner/copier. The College of Pharmacy has 4 group study/ breakout rooms, 2 study areas, a computer classroom with 40 workstations and 3 printers. Wireless network access is available throughout the Irma Lerma Rangel College of Pharmacy. The Pharmacy Library is open 45 hours per week.

The College Station campus Learning Resources (CSLR) provides seating for 141 users, 20 group study rooms, a computer classroom with 6 workstations, 7 public workstations, and wireless network access available throughout. The CSLR is open 92.5 hours per week.

The Temple campus Learning Resources (TLR) provides seating for 56 users, 10 group study rooms, a computer classroom with 7 workstations, 13 public workstations, and wireless network access available throughout. Access to the TLR is 24/7.

The Scott and White Memorial Hospital Richard D. Haines Library provides seating for 104 users, 2 group study rooms, a computer classroom with 10 workstations, 25 public workstations, and wireless network access available throughout. The library at Scott and White is staffed 45 hours per week, with after-hours access possible.

The Baylor Health Sciences Library (BHSL) in Dallas provides seating for 140 users, has 1 large quiet study room and 2 group study areas, a computer lab with 30 workstations, 11 additional public workstations, and wireless network access available throughout. BHSL, which serves both the TAM HSC Baylor College of Dentistry and the Baylor University Medical Center, is staffed by 7 professional librarians and 6 paraprofessionals. The library is open 80 hours per week; after-hours study space is available elsewhere within TAM HSC-BCD.

The Houston Academy of Medicine-Texas Medical Center Library (HAM-TMCL) provides seating for 247 users, 8 group study rooms, a computer classroom with 25 workstations, 54 public workstations, 2 public printers, 2 public scanners and 2 photocopiers. Wireless network access is available throughout the library. The HAM-TMCL is open 89 hours per week.

The MSL uses the LibQUAL+® survey to assess the effectiveness of its information and service efforts. LibQUAL+® is a user centered survey that asks respondents to rate a library's performance in three areas: Customer Service, Information Resources/Delivery and the Library as a Place of Study. In addition, the survey asks for demographic, library usage and satisfaction

Other Learning/Information Resources**Collections and Online Services**

The TAM HSC has access to extensive collections through the Texas A&M University Library and the Medical Sciences Library combined, as well as specialized dentistry resources available through Baylor Health Sciences Library. Specifically, access includes more than 4.6 million volumes, nearly 950,000 electronic books, over 101,000 electronic journals and over 1,200 databases. All libraries have been aggressive in their commitment to licensed electronic resources, acquiring both current and full-run backfile journals electronically. Collections and online resources are more fully discussed in the report on Core Requirement 2.9, Learning Resources and Services [Core Requirement 2.9, Learning Resources and Services].

To meet the needs of the distributed TAM HSC campuses, the Medical Sciences Library provides 24/7 access to online resources and access to services beyond the hours physical facilities are open and staffed. All electronic resources are available to TAM HSC whenever and wherever the resources are needed by means of a proxy server and authentication service. Whenever an electronic version of a resource is not available, TAM HSC users can request that articles or book chapters be scanned and posted to a time-limited website for their retrieval. This “Get It for Me” service is tremendously popular [Get It for Me brochure]. Requests have risen steadily since the inception of the service in 2003, and services have been expanded to include retrieving books from the library stacks for users and sending them to faculty offices. Over the past four years (2007-2010) the Medical Sciences Library has delivered 45,155 scanned articles and retrieved 434 books for TAM HSC students and faculty—in addition to borrowing over 8,000 items from other libraries through regular interlibrary loan services. In addition to online access to the Get It for Me service, TAM HSC users have online access to the library catalog, course reserves, reference services via chat, subject guides, online tutorials and an Electronic Resources HelpDesk service.

Results from the 2010 LibQUAL+® survey indicate that 48% of HSC students and 20% of HSC faculty use resources on library premises at least weekly. In comparison, 30% of students and 60% of faculty prefer to use the libraries’ resources online rather than to visit its facilities.

External Resource Relationships

Over the past decade, the Texas A&M University Libraries has taken a leadership role in developing digital library services in collaboration with the General Libraries of the University of Texas in Austin. The Texas Digital Library (TDL) is now a fifteen member state-wide effort which provides institutional repository services for creating local collections of digital objects (faculty articles, research reports, electronic thesis and dissertations, etc.), software for creating and managing online electronic journals, software to manage collaborative research projects and information sharing through scholarly blogs, research wikis and online conference management. It also contains the Texas Learning Object Repository, a collaborative resource for sharing curriculum materials [Texas Digital Library website].

In addition to its role as the anchor library for the eleven member consortium Texas A&M Health Science Center Alliance of Libraries, the Medical Sciences Library serves as a Resource Library for the National Network of Libraries of Medicine, South Central Region. The Texas A&M University Library and the Medical Sciences Library both maintain membership in other

regional, national and international library organizations and service networks that facilitate the sharing of information resources, provide efficient document delivery request routing and delivery services for interlibrary loan, and result in competitive pricing for electronic resources. External collaborations to facilitate resource sharing are more fully discussed in the report on Core Requirement 2.9, Learning Resources and Services [Core Requirement 2.9, Learning Resources and Services].

Instruction of Library Use

The Texas A&M University Medical Sciences Library provides a rich and varied array of instructional programs and aids in the use of the library and other learning/information resources to the TAM HSC, unaffiliated health care providers and the general public of Central Texas. Types of instructional programs span library orientations, open houses and information fairs, personalized one-on-one sessions, clinical point-of-care focused instruction, customized group instruction, contribution of modules within Health Science Center courses, and provision of Health Science Center for-credit courses. In addition, library faculty create a variety of online guides and tutorials and provide point-of-need instruction in the use of online resources and access problem resolution through an Electronic Resources HelpDesk service. The following table documents that the productivity of the MSL instructional program is above the national mean established by the Association of Academic Health Science Libraries (AAHSL).

Table 3.8.1.3 2009 MSL Instructional Program compared to AAHSL National Mean

	Group Presentations	Participants in Group Presentations	Online Tutorials	Outreach Programs
MSL	481	3,886	38	20
AAHSL Mean	211	2,654	26	25

The effectiveness and assessment of MSL in-person instruction as rated by session participants is seen in the following table.

Table 3.8.1.4 2009 MSL In-Class Instruction Survey Results (on a 5 point scale)

Category	Question	Mean Score
Content	The amount of information presented was sufficient	4.2
	The information presented will be helpful to me	4.2
Delivery	I could see and hear the instructor clearly	4.4
	The instructor effectively presented the information	4.2
	The instructor encouraged questions/interaction	4.3
	The instructor showed interest and enthusiasm	4.5
Overall	The quality of the session was excellent	4.0
	I would attend another session in the future	3.6
	I feel more confident using the library's resources	4.1

The instruction offered through the MSL outreach program is made possible through a contract with the National Library of Medicine (NLM) through its Regional Medical Library Program. The intended audience for this instruction is not only unaffiliated health care providers but also the general public of this Central Texas region. The goals of this instruction program are to promote the awareness of the biomedical information resources of the NLM and to improve access to both the professional and consumer information resources available from the NLM. The ultimate goal is to improve the quality of care provided to the citizens of Texas and to enable Texas health care consumers to make informed decisions about their health and health care. MSL faculty provide training on NLM databases and consumer health information to individual health care providers, professional organizations and community groups. Instruction of library use is more fully discussed in the report on Comprehensive Standard 3.8.2, Instruction of Library Use [Comprehensive Standard 3.8.2, Instruction of Library Use].

Library Staff

The MSL staffing includes 14 tenure track faculty, 3 non-academic professionals and 9 paraprofessionals plus a number of part time student assistants whose collective work hours are equivalent to 5 full-time workers. Each MSL tenure track faculty holds the terminal degree of practice, a Master of Library Science, from an institution accredited by the American Library Association. In addition, 43% of them also hold graduate degrees in academic or professional fields such as nutrition, public health and information science and advanced certificates in informatics. Five of the tenure track faculty also hold joint appointments within the professional schools served by MSL. Staffing levels at MSL are stable, having only a 4% turnover rate for each of the past three years. MSL staff are experienced and well-trained; the composite years of library experience represented by all MSL staff is over 230 years. MSL staff qualifications are more fully discussed in the report on Comprehensive Standard 3.8.3, Qualified Staff [Comprehensive Standard 3.8.3, Qualified Staff].

Alignment of Library Facilities and Resources with TAM HSC Educational and Research Programs

Facilities are open extensive hours and some are available 24/7 to meet the needs of students. Individual and collaborative group study space, computers and other appropriate equipment are available for use in-house or for check-out. The emphasis on online information resources and website development makes resources and services available whenever and wherever the TAM HSC user needs them. Several MSL librarians are embedded in TAM HSC campus locations rather than having offices in the College Station library. All MSL librarians offer point of need instruction for TAM HSC users. Several MSL librarians teach within the TAM HSC curriculum. The extensive collection coverage afforded by the Texas A&M University Libraries, along with efficient document delivery and interlibrary lending networks, successfully supports the research and educational programs of the TAM HSC.

Alignment of Library Facilities and Resources with TAM HSC Mission

The HSC mission, to advance the knowledge and technologies of our professions, and to bring Texans the finest in health education, promotion and care is clearly supported in the MSL mission, which is to “improve health by providing the finest information resources and exceptional service to the Texas A&M worldwide community.” The MSL supports the TAM HSC service mission through its facilities and programs available across TAM HSC locations,

through the delivery of learning/information resources and through educational outreach programs aimed at the general public and unaffiliated health care providers of the Central Texas region.

Examples of Compliance

The examples below demonstrate two facets of MSL's compliance to the SACS 3.8.1 Standard to provide facilities and information resources that are appropriate to support TAM HSC teaching, research, and service mission.

Facility Improvements Based on Comments from LibQUAL+® survey of TAM HSC users in spring 2009 and 2010:

- Additional power outlets
- Additional group study rooms constructed
- Additional study tables provided
- User seating capacity increased by placing collection materials that are also available electronically in remote storage
- Replacement of 100 study chairs with ergonomic chairs chosen by student vote
- Painting/refurbishing of all group and individual study rooms
- Enhancement of quiet study space with sound barriers

Information Resources Appropriate to Teaching, Research and Service Mission

Benchmarking MSL resources in 2010 against a listing of "Core Resources" developed by the Association of Academic Health Science Libraries (AAHSL), the MSL owns 95% of the resources listed [AAHSL Core Electronic Resources Listing].

Supporting Documentation and Evidence:

- AAHSL Core Electronic Resources Listing
- Comprehensive Standard 3.8.2, Instruction of Library Use
- Comprehensive Standard 3.8.3, Qualified Staff
- Core Requirement 2.9, Learning Resources and Services
- Get It for Me Brochure
- TAM HSC Alliance Listing
- TAMU-TAM HSC (Texas A&M University -Texas A&M Health Science Center) Intrasystem Cooperation Contract
- Texas Digital Library Website



Comprehensive Standard 3.8.2 Instruction of Library Use

The institution ensures that users have access to regular and timely instruction in the use of the library and other learning/information resources. (Instruction of library use)

Judgment of Compliance:

In compliance

Rationale for Judgment of Compliance:

Executive Summary

The Texas A&M University Medical Sciences Library provides a rich and varied array of instructional programs and aids in the use of the library and other learning/information resources to the Texas A&M Health Science Center, unaffiliated health care providers and the general public of Central Texas. Types of instructional programs span library orientations, open houses and information fairs, personalized one-on-one sessions, clinical point-of-care focused instruction, customized group instruction, contribution of modules within Health Science Center courses, and provision of Health Science Center for-credit courses. In addition, library faculty create a variety of online guides and tutorials and provide point-of-need instruction in the use of online resources and access problem resolution through an Electronic Resources HelpDesk service.

Institutional Response

The Medical Sciences Library (MSL) at Texas A&M University (TAMU) has served as the library of the Texas A&M Health Science Center (TAM HSC) since its beginnings as the College of Medicine within Texas A&M University. The growth of TAM HSC and its separation from the university led to the development of a formal agreement between TAMU and TAM HSC to clearly define and ensure established library services from the MSL and its parent organization within TAMU, the Texas A&M University Libraries (TAMUL). Through an Intrasystem Cooperation Contract (Agreement), the TAMUL provides a full complement of library resources and services to TAM HSC users regardless of their physical location. The contract establishes the annual TAM HSC financial support for TAMUL, an amount indexed to total TAMUL budget but which may not fall below a level of at least \$1,500,000. It also provides a cost sharing basis and process for developing collections as new TAM HSC programs are added [TAMU-TAM HSC Intrasystem Cooperation Contract]. The TAM HSC Institute of Biomedical Sciences and Technology, located in the Texas Medical Center in Houston, has also maintained membership in the Houston Academy of Medicine-Texas Medical Center, with its associated library service privileges, since the institute began. The TAM HSC Baylor College of Dentistry (TAM HSC-BCD) located in Dallas, has long been served by the Baylor Health Sciences Library (BHSL) in Dallas.

The Texas A&M University Medical Sciences Library (MSL) provides a rich complement of regular and timely instruction in the use of the library and other learning/information resources to the Texas A&M Health Science Center (TAM HSC), unaffiliated health care providers and the general public of Central Texas. MSL has four physical sites and serves the students and faculty at all of the TAM HSC's schools, centers, institutes and campuses. The central administration of MSL is located in College Station, with specialized onsite instructional services provided at campuses in Bryan, College Station, Kingsville, Round Rock and Temple. Instructional resources and services are being regularly developed and expanded to support the growth of the TAM HSC, its programs and areas of focus.

MSL provides standard, traditional in-person instructional programs, virtual online guides and tutorials and customized programs and services to best match specific TAM HSC needs and most effectively support TAM HSC initiatives. The desire to identify and serve the needs of the TAM HSC students, faculty and staff has led MSL to develop programs beyond the traditional classroom instruction efforts to reach out to its clients. This has been particularly challenging as more and more resources have become web-based and the user preference is also for online resources available when and where they need them. In 2009, 50% of the MSL's total expenditures were spent on electronic resources. Furthermore, findings in the 2010 LibQUAL+[®] survey (an internationally recognized library user centered survey) indicated that 57% of TAM HSC users are primarily online users. By necessity, MSL must continue to develop new and effective ways, other than strictly classroom instruction, to reach out and support the TAM HSC.

MSL employs two full time library faculty to develop the curriculum and manage the library's instructional programs for TAM HSC. Each TAM HSC unit has a dedicated MSL library faculty liaison. All of the other twelve faculty members participate in the MSL instructional programs at various levels. The total MSL staffing complement for instruction is about 4.5 FTE.

MSL Instructional Initiatives

In-Person Instructional Programs and Activities

The in-person instructional services offered to TAM HSC include library orientations, open houses and information fairs, personalized one-on-one sessions, clinical point-of-care focused instruction, customized group instruction, contribution of modules within Health Science Center courses, and provision of Health Science Center for-credit courses. The timing and content of instructional services is usually developed in collaboration with TAM HSC faculty. The sessions are often scheduled to best match the needs of TAM HSC students such as at the beginning of semesters or coordinated with course assignments; they may also be requested by individuals based on particular needs. The primary objective of MSL instruction efforts is to increase the information management skills of TAM HSC students, staff and faculty, including the ability to evaluate their professional literature and to integrate evidence into their patient care decisions. Between 2005 and 2009 the number of group presentations offered by MSL increased 150%. With its particular variety of instructional programs, MSL is able to reach every TAM HSC student at least once, and usually more often, with in-person instructional programs during their academic career.

In addition to the customary instruction on library use and information resources, MSL faculty and BHSL librarians provide a number of TAM HSC for-credit modules and courses including:

- Modules in the Nursing Informatics Course, NURS 322
- Modules in the College of Medicine Internal Medicine Clerkship [Syllabus: Internal Medicine Clerkship Informatics Rotation]
- Modules in the College of Dentistry Introduction to Evidence Based Dentistry and Clinical Research course, BCD 6860
- College of Medicine Fourth Year Elective
- Public Health Informatics, SRPH 640 (3 credit hours) [Syllabus: SRPH 640: Public Health Informatics]

They also participate in other TAM HSC courses, instructional programs and curriculum committees. For example, MSL faculty have had the following roles in support of TAM HSC instruction:

- Serve as facilitator for the Interdisciplinary Ethics course (College of Medicine and College of Nursing)
- Attend the College of Medicine Family Practice Residency Morning Report sessions on a weekly basis to provide support as needed
- Serve on the School of Rural Public Health Curriculum Committee
- Serve on the Internal Medical Education Committee
- Attend College of Medicine Curriculum Committee meetings

In September 2009 MSL piloted a new approach to provide instruction in the use of library resources, the information resources fair. The intent of the fair is to provide a concentrated, inter-active experience that enables faculty, students and staff to learn about and effectively use the information resources that MSL provides. The event usually spans two days and includes both a general open information resources event featuring selected information resources and an in-service formal presentation intended for faculty. Students, faculty, and staff receive free vendor items, brochures, and fact sheets in addition to learning about the services, expertise and resources that MSL provides. The information resources fair event has been successfully repeated in 2010 and will be expanded to reach each of the geographically disperse units of the TAM HSC.

Online Guides and Tutorials

In addition to the standard in-person instructional sessions, MSL faculty provide virtual instructional aids that are available 24/7 on the MSL website. Subject guide pages are available for medicine, nursing, pharmacy and public health. These guides were viewed over 30,000 times in 2009 [MSL Subject Guides]. Online tutorials are available for specialty health sciences resources such as AccessMedicine, Anatomy TV, DynaMed, Essential Evidence Plus, Exam Master, MD Consult, PubMed, Scopus and Web of Science. Additional general tutorials on subjects such as academic integrity and plagiarism, citation management software and library use tutorials [MSL Online Tutorials] are also available. Online tutorials are created as new online resources are added.

Electronic Resources HelpDesk

MSL, as part of the Texas A&M University Libraries (TAMUL), offers access to over 1,200 databases and over 101,000 journal titles available electronically. Emphasizing electronic resources is a strategic MSL choice which best supports our geographically distant TAM HSC

campuses. Achieving and maintaining reliable remote access to these resources is a long-standing and ongoing challenge. In 2006, when the number of *unresolved* online problems had reached over 500, MSL piloted the development and deployment of an Electronic Resources (ER) HelpDesk to reconcile not only the backlog of reported problems but to provide timely resolution and point-of-need instruction on the use of electronic resources. The program was staffed wholly by MSL personnel and served the TAM HSC and the Texas A&M University communities. Typical problems besides providing assistance and instruction in the use of online resources included correcting the libraries' electronic resources management systems, contacting vendors directly to remedy access and licensing issues and resolving user authentication credentials. The ER HelpDesk has evolved significantly since 2006. This electronic resources point-of-need instruction program and problem resolution system has now been folded into the virtual reference service offered by the TAMUL. With increased hours of availability, the ER HelpDesk service continues to provide an important component of MSL's online assistance in the use of library resources.

Instructional Programs Delivered to Unaffiliated Health Care Providers and the Public

Besides the instructional programs developed to support the academic and research goals of the TAM HSC, MSL offers a program of instruction and outreach to support the TAM HSC service goals. The instruction offered through the MSL outreach program is made possible through a contract with the National Library of Medicine (NLM) through its Regional Medical Library Program. The intended audience for this instruction is not only unaffiliated health care providers but also the general public of this Central Texas region. The goals of this instruction program are to promote the awareness of the biomedical information resources of the NLM and to improve access to both the professional and consumer information resources available from the NLM. The ultimate goal is to improve the quality of care provided to the citizens of Texas and to enable Texas health care consumers to make informed decisions about their health and health care. MSL faculty provide training on NLM databases and consumer health information to individual health care providers, professional organizations and community groups. MSL faculty also demonstrate and promote NLM products and services at local, regional and national conferences and events.

Participation in Library Instructional Programs

MSL instruction faculty have developed strategically scheduled and highly attended programs to deliver information to support the TAM HSC curriculum needs in a timely and regular basis. Additionally, MSL offers on-demand course support, instructional class delivery and one-on-one consultation efforts. Table 3.8.2.1 compares 2009 MSL instructional efforts to the Association of Academic Health Sciences Libraries (AAHSL) national mean values for instructional activities. As the table indicates MSL has developed and sustains a strong instructional program that is evidenced, among other factors, by the large number of participants and clearly exceeds the national mean in three of four areas. With the addition of MSL faculty and reorganization of responsibilities the MSL's outreach efforts are expected to grow in the coming years.

Table 3.8.2.1 2009 MSL Instructional Program compared to AAHSL National Mean

	Group Presentations	Participants in Group Presentations	Online Tutorials	Outreach Programs
MSL	481	3,886	38	20
AAHSL Mean	211	2,654	26	25

Effectiveness of Library Instructional Programs

MSL faculty in 2009 conducted a random sampling of TAM HSC students that participated in the in-class instruction sessions. Participants were asked to rate, on a 5 point scale, the effectiveness of the session. Table 3.8.2.2 documents the findings of these surveys. Most notably, MSL in-class session efforts left students feeling that the information presented was helpful and left them feeling more confident about using the library’s information resources.

Table 3.8.2.2 2009 MSL In-Class Instruction Survey Results

Category	Question	Mean Score
Content	The amount of information presented was sufficient	4.2
	The information presented will be helpful to me	4.2
Delivery	I could see and hear the instructor clearly	4.4
	The instructor effectively presented the information	4.2
	The instructor encouraged questions/interaction	4.3
	The instructor showed interest and enthusiasm	4.5
Overall	The quality of the session was excellent	4.0
	I would attend another session in the future	3.6
	I feel more confident using the library's resources	4.1

Examples of Compliance

The examples below demonstrate two facets of MSL’s compliance to the SACS 3.8.2 Standard. The first three examples list MSL’s efforts to provide timely and regular instruction. The two remaining examples illustrate MSL’s endeavors to provide access to instruction of the library’s resources and services that go beyond the pale of classroom instruction.

Timely and Regular Instruction

Open Houses and Fairs

- At the beginning Fall Term, MSL sponsors an Open House at its College Station facility. MSL collaborates with various TAM HSC units and resource vendors.
- Informational material [MSL Open House], pertinent URL addresses, library tours, promotional materials and incentive prizes are offered.

- The College of Pharmacy Information Resources Fair is held at the Kingsville facility and is being expanded to other TAM HSC units

Orientation Classes

- In addition to the Open House events that MSL offers, the library also offers recurring orientation classes at the beginning of each school term:
 - College of Medicine 1st Year Students Orientation
 - College of Nursing 1st Year Students Orientation
 - College of Pharmacy 1st Year Students Orientation
 - School of Rural Public Health New Students Orientation
 - Individually scheduled sessions for any TAM HSC student, faculty or staff who is unable to attend these orientations

Regularly Scheduled Instruction Programs

- Citation Management Software classes – held monthly
- Library Brown Bag Instructional Series – also held monthly, typically highlight a particular library database, journal resources or service
- To quote one of the MSL faculty instructors, “regular is defined by the user group.” Examples include College of Medicine monthly database training sessions for first year students, the weekly attendance at the Family Practice Residency Morning Report and the Temple campus onsite support.
- PubMed class for College of Pharmacy P1 students is scheduled just prior to the assignment of their semester research project.

College of Pharmacy Information Resources Fair

- In September 2009 MSL and Texas A&M Irma Lerma Rangel College of Pharmacy (COP) jointly held an Information Resources Fair (IRF). The event spanned two days [CoP Information Resources Fair flyer]. The IRF is held in late September at the COP in Kingsville, scheduled to be held at the beginning of the fall school term to provide timely and effective information as the COP begins their new school year.
- The IRF Planning Team consists of librarians from MSL, the COP library, and the Coastal Bend Health Education Center library.
- The 2009 IRF attempted to reach 37 COP faculty, 235 students and the staff.
- In 2010 there were over 350 attendees.
- The IRF is a four-hour event with display tables featuring flyers and demonstrations of databases, services, and vendor products licensed by MSL and the Texas A&M University Libraries. MSL provides a free lunch for the attendees. In addition to learning about the services, expertise and resources that MSL provides, students, faculty, and staff receive free vendor items, brochures, and fact sheets.
- An in-service program, attended by about 25-30 faculty each year, provides training for faculty on MSL services and information resources that support functions and activities related to courses, research, grants, and administrative tasks [CoP Faculty Workshop flyer].
- A door prize contest was held for the 2010 IRF, with the first prize of an iPod Touch, provided by Epocrates, an online resource producer.

Texas A&M University Library Electronic Resources HelpDesk

- Pilot project begun in 2006 by MSL
- Provides point-of-need instruction in the use of electronic resources and access problem solving

- At the end of the 14 month MSL-piloted ER HelpDesk program
 - TAMUL endorsed the service and provided personnel to support the program
 - A tiered response program was implemented for online resources (also piloted by MSL)
 - Response times and rates of resolution decreased significantly
 - TAMUL Digital Initiatives Unit implemented a new software program to streamline the authentication process for remote users

Supporting Documentation and Evidence:

- CoP Faculty Workshop flyer
- CoP Information Resources Fair flyer
- MSL Online Tutorials
- MSL Open House
- MSL Subject Guides
- Syllabus: Internal Medicine Clerkship Informatics Rotation
- Syllabus: SRPH 640: Public Health Informatics
- TAMU-TAM HSC (Texas A&M University -Texas A&M Health Science Center) Intrasystem Cooperation Contract



Comprehensive Standard 3.8.3 Qualified Staff

The institution provides a sufficient number of qualified staff—with appropriate education or experiences in library and/or other learning/information resources—to accomplish the mission of the institution. (Qualified staff)

Judgment of Compliance:

In compliance

Rationale for Judgment of Compliance:

Executive Summary

All Medical Sciences Library (MSL) staff are encouraged to enhance and build their professional knowledge and skills. MSL librarians must meet requirements for promotion and tenure, and are subject to post tenure review. Paraprofessionals on the MSL staff are encouraged to develop and enhance their skills through a library career ladder. MSL staffing levels are stable, having only a 4% turnover rate for each of the past three years. MSL staff are experienced and well-trained; the composite years of library experience represented by all MSL staff is over 230 years. Results from 2010 LibQUAL+® survey questions on Customer Service as well as 4 of the 7 satisfaction questions indicate that the library's users, both students and faculty, are very satisfied with the personnel and the services that the MSL provides.

Institutional Response

The Medical Sciences Library (MSL) at Texas A&M University (TAMU) has served as the library of the Texas A&M Health Science Center (TAM HSC) since its beginnings as the College of Medicine within Texas A&M University. The growth of TAM HSC and its separation from the university led to the development of a formal agreement between TAMU and TAM HSC to clearly define and ensure established library services from the MSL and its parent organization within TAMU, the Texas A&M University Libraries (TAMUL). Through an Intrasystem Cooperation Contract (Agreement), the TAMUL provides a full complement of library resources and services to TAM HSC users regardless of their physical location. The contract establishes the annual TAM HSC financial support for TAMUL, an amount indexed to total TAMUL budget but which may not fall below a level of at least \$1,500,000. It also provides a cost sharing basis and process for developing collections as new TAM HSC programs are added [TAMU-TAM HSC Intrasystem Cooperation Contract]. The TAM HSC Institute of Biomedical Sciences and Technology, located in the Texas Medical Center in Houston, has also maintained membership in the Houston Academy of Medicine-Texas Medical Center, with its associated library service privileges, since the institute began. The TAM HSC Baylor College of Dentistry (TAM HSC-BCD) located in Dallas, has long been served by the Baylor Health Sciences Library (BHSL) in Dallas.

As one of the libraries under the Texas A&M University Libraries (TAMUL) umbrella, the Medical Sciences Library (MSL) serves as the anchor library for delivering information resources and services to the Texas A&M Health Science Center (TAM HSC). The MSL has four physical sites and serves all schools, centers, institutes, campuses and students of the TAM HSC. The central administration of MSL is located in College Station, with specialized onsite collections and services provided at campuses in Bryan, Kingsville and Round Rock. MSL librarians deliver services, expertise and educational programs to the campuses in Bryan, Kingsville, Round Rock and Temple. In addition, librarians at BHSL in Dallas provide resources and services in support of the programs at the TAM HSC-BCD.

The MSL staffing includes 14 tenure track faculty, 3 non-academic professionals and 9 paraprofessionals plus a number of part time student assistants whose collective work hours are equivalent to 5 full-time workers. Each MSL tenure track faculty holds the terminal degree of practice, a Master of Library Science, from an institution accredited by the American Library Association. In addition, 43% of them also hold graduate degrees in academic or professional fields such as nutrition, public health and information science and advanced certificates in informatics. Of the 14 tenure track faculty, 5 hold the rank of assistant professor, 7 are tenured as associate professors, and 2 are tenured with the rank of professor. Five of the tenure track faculty also hold joint appointments within the professional schools served by MSL. As members of the TAMUL faculty, MSL faculty are governed by a system of faculty governance [Library Faculty Bylaws] and criteria for tenure and promotion [Statement on Appointment, Promotion, and Tenure]. The criteria for promotion and tenure establish ongoing expectations for continuous faculty activity in a program of research and publication as well as professional service. One of the requirements for promotion and tenure specifically for MSL faculty is to achieve membership in the Academy of Health Information Professionals (AHIP), the credentialing program of the Medical Library Association [Academy of Health Information Professionals]. The MSL pays for any credentialing costs associated with AHIP. A program of post tenure review is in place at the TAMUL as required by Texas A&M University [Post Tenure Review Documentation]. All of these underscore the need for librarians to enhance and refine their professional expertise.

The other three non-academic professionals on the MSL staff include a Business Manager, an Administrative Coordinator, and a Computer Specialist, all of whom have the education and experience necessary to fulfill their responsibilities. The nine paraprofessionals on the MSL staff are encouraged to develop and enhance their skills through a library career ladder. As they gain expertise and meet performance benchmarks, they are rewarded with a promotion and salary increase which is currently 7% [Texas A&M University Classification Specifications for Library Career Ladder]. MSL staffing levels are stable, having only a 4% turnover rate for each of the past three years. MSL staff are experienced and well-trained; the composite years of library experience represented by all MSL staff is over 230 years.

The MSL annually budgets \$2,000 per tenure track faculty and non-academic professional staff member to use at individual discretion for professional development and travel. All faculty and staff can request additional funding through the MSL director or through the TAMUL Personnel Development Committee (PDC) for job-related skill enhancement opportunities. Currently an additional \$22,000 in travel funding is available through the MSL administration and the PDC's

annual budget is \$80,000 [Guidelines for Personnel Development Funds]. The TAMUL Mclemore Educational Opportunity Scholarships are available to faculty and staff who wish to pursue graduate degrees. Since the inception of this scholarship program faculty and staff members from the TAMUL have completed 15 masters and 3 doctoral degrees, and the program is currently supporting 15 staff and faculty in degree programs [Educational Opportunity for Faculty and Staff of Texas A&M University Libraries]. The TAMUL also provides numerous opportunities for in-house and on campus skill enhancement, ranging from technology upgrade sessions to training in supervision and management. During the 2009 and 2010 academic years TAMUL administration brought trainers from the Disney Institute onsite to conduct sessions on customer service for all faculty and staff. During the 2010 and 2011 academic years the TAMUL Employee Services manager is engaged in a year-long project to conduct a series of Arbinger Institute workshops on improving interpersonal communications for all faculty and staff.

MSL librarians have partnered with faculty throughout the TAM HSC to deliver curricula in information management, interprofessional informatics and evidence-based practice. MSL librarian expertise has combined with input from TAM HSC faculty and staff to build relevant collections of information resources and to assess their ongoing relevance. MSL librarians are active professionally at regional, national and international levels.

The MSL uses the LibQUAL+® survey to assess the effectiveness of its information and service efforts. LibQUAL+® is a user centered survey that asks respondents to rate a library’s performance in three areas: Customer Service, Information Resources/Delivery and the Library as a Place of Study. In addition, the survey asks for demographic, library usage and satisfaction information. Since its beginning in 2001, LibQUAL+® has been taken by 1.2 million respondents from 1,200 libraries in 20 language versions throughout the world.

The LibQUAL+® survey questions on Customer Service as well as 4 of the 7 satisfaction questions are used to rate the efficacy of the library’s staff and their efforts. Results from 2010, which are given in Table 3.8.3.1, indicate that the library’s users, both students and faculty, are very satisfied with the personnel and the services that the MSL provides.

Table 3.8.3.1 2010 MSL LibQUAL+® Satisfaction Question Results

	Library aid in the advancement of academic discipline or work	Satisfaction with library treatment	Satisfaction for library support of learning, research & teaching needs	Rating of overall service quality provided by the library
Students	82%	87%	82%	84%
Faculty	84%	86%	82%	85%

Results from the LibQUAL+® Customer Service questions, presented in Table 3.8.3.2, further indicate that TAM HSC users rate MSL’s staff and services highly. Scores in both customer treatment and job knowledge validate the competency of MSL staff.

Table 3.8.3.2 2010 MSL LibQUAL+® Customer Service Question Results

CUSTOMER SERVICE CATEGORY	QUESTION	USER GROUP	ADEQUACY GAP RATIO (Performance Rating)
CUSTOMER TREATMENT	Giving users individual attention	Students	97%
		Faculty	104%
	Employees who are consistently courteous	Students	98%
		Faculty	101%
	Readiness to respond to users' questions	Students	100%
		Faculty	103%
	Employees who deal with users in a caring fashion	Students	98%
		Faculty	98%
	Willingness to help users	Students	99%
		Faculty	96%
JOB KNOWLEDGE	Employees who instill confidence in users	Students	101%
		Faculty	94%
	Employees who have the knowledge to answer user questions	Students	98%
		Faculty	100%
	Employees who understand the needs of their users	Students	96%
		Faculty	91%
	Dependability in handling users' service problems	Students	92%
		Faculty	93%

Table 3.8.3.3 How to Read Adequacy Gap Ratio (AGR) Results

AGR	Description/determination
AGR > 100%	Provided services/resources exceed user needs/expectations
0% ≥ AGR ≤ 100%	Services/resources meet user needs/expectations. <i>The greater the score, within this range, the more closely the service/resource Meets a user's perception of an ideal resource or delivery.</i>
AGR < 0%	Services/resources do not meet user needs/expectations.

The following graphic, using the Wordle™ software, displays most prevalent words found in TAM HSC user comments from the 2010 MSL LibQUAL+® comments on MSL customer service.

Figure 3.8.3.1. Word Cloud of 2010 MSL LibQUAL+® Customer Service Comments



Examples of Compliance

The following examples provide external validation of the competency of MSL librarians.

- Tenured MSL librarians, and some of the untenured, have achieved and maintain membership in the Academy of Health Information Professionals (AHIP), the credentialing program of the Medical Library Association [Academy of Health Information Professionals]. Twelve of the fourteen MSL librarians hold AHIP membership at the following levels, which indicate their expertise and professional development activities: 5 at the distinguished level, 5 at the senior level and 2 recent hires at the provisional level, pending 5 years of experience as a medical librarian. Only two tenured librarians, those without medical librarian responsibilities, have not earned AHIP membership.
- MSL librarians continue to teach the masters level course, Health Sciences Information Management, SLIS 5365, in the University of North Texas Department of Library and Information Science [University of North Texas course, Health Sciences Information Management, SLIS 5365 Syllabus].

Supporting Documentation and Evidence:

- Academy of Health Information Professionals, <http://www.mlanet.org/academy/>
- Educational Opportunity for Faculty and Staff of Texas A&M University Libraries
- Guidelines for Personnel Development Funds
- Library Faculty Bylaws
- MSL Roster of Librarians and Staff
- Post Tenure Review Documentation
- Statement on Appointment Promotion and Tenure
- TAMU-TAM HSC (Texas A&M University -Texas A&M Health Science Center) Intrasystem Cooperation Contract
- Texas A&M University Classification Specifications for Library Career Ladder and Medical Sciences Library Career Ladder Operating Guidelines
- University of North Texas course, Health Sciences Information Management, SLIS 5365 Syllabus



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Core Requirements 2.9 - Learning Resources and Services

The institution, through ownership or formal arrangements or agreements, provides and supports student and faculty access and user privileges to adequate library collections as well as to other learning/information resources consistent with the degrees offered. These collections and resources are sufficient to support all its educational, research, and public service programs.

Compliance Certification

The University of Virginia is in compliance with this requirement.

Explanation

The University of Virginia provides and supports student and faculty access and user privileges to adequate library collections and other learning/information resources consistent with the degrees it offers. The University accomplishes this goal through ownership of materials, supplemented by formal arrangements and agreements with other institutions. The University's collections and resources are sufficient to support all of its educational, research, and public service programs.

This response provides (1) an overview of the University of Virginia's library system, (2) a description of the collections, (3) examples of collaborative associations with other institutions, (4) information on ongoing efforts to ensure the adequacy of the University's collections, and (5) a discussion of access and user privileges. A discussion (6) of other learning/information resources, including access to computing resources, completes the response.

1. Overview of the University of Virginia's Library System

The University of Virginia won the 2005 "Excellence in Academic Libraries Award," given annually by the Association of College and Research Libraries to recognize "academic librarians and staff who work together as a team to develop an academic library that is outstanding in furthering the educational mission of its parent institution."

The University of Virginia's Library System comprises four entities that use a single online system (VIRGO) and coordinate their activities to make the best use of resources:

- The University Library, which maintains 12 libraries and one high-density shelving facility to serve the University's undergraduate, graduate, and professional schools' educational, research, and public service programs.
- The Claude Moore Health Sciences Library, which supports and facilitates the clinical, research, and education needs of the University of Virginia Health System, which includes the School of Medicine and the School of Nursing.
- The Arthur J. Morris Law Library, which primarily serves law-related needs of students and faculty of the University of Virginia Law School.
- The Camp Library, which primarily supports the research and educational needs of the University's Darden Graduate School of Business Administration.

As of June 30, 2005, the University of Virginia Library System's combined printed collections contained 5,053,162 printed volumes; 53,370 serial subscriptions; 5,541,742 microforms; 151,461 maps; 676,334 government documents; and 17,013,606 manuscript items. The Library System's combined non-print materials contained 465,037 slides, photographs, and other graphic materials; 65,043 sound recordings; 29,667 film and video materials; and 264,989 digital objects. Expenditures for Library System's collections during the 2005 fiscal year topped \$10 million for the first time. Just over \$3.2 million of the \$10.1 million materials budget was allocated to electronic resources.

For the 2004 fiscal year, the latest year for which comparative data are available, the University ranked 24th overall among 113 universities in the Association of Research Libraries, 41st in volumes added, 18th in serial subscriptions, 33rd in microform units, 21st in government documents, and 39th in expenditures for collections.

2. The University of Virginia Library System's Collections

The University of Virginia's ten schools offer degrees at the baccalaureate, master's, and doctoral levels. The University maintains an extensive library system with collections that support all of the degrees offered.

The University Library

The University Library maintains 13 facilities to house the collections that serve the institution's undergraduate, graduate, professional, and faculty research programs. One of these, the Ivy Stacks, is a high-density shelving facility that holds approximately 15 percent of the library's print collections. The remaining 12 facilities are the following.

- Alderman Library holds the majority of the university's collections in the humanities and social sciences, and contains outstanding collections in English and American literature, history, politics, and religious studies. A recent gift acquisition is the Tibetan Collection, one of the most complete collections of Tibetan documents in the world.
- Clemons Library contains a core collection of high-demand items primarily for the undergraduate user. Clemons also houses the Robertson Media Center, which supports many academic programs as well as the Media Studies Program. The media center's collection contains 20,000 video recordings on tape and disc, including the South Asian Video Collection, which comprises more than 2,000 videos in a variety of Indian languages. The RMC houses the Digital Media Lab where digital collections are acquired and produced (via student and faculty projects). Digital images include the Associated Press Archive of 500,000 photographs documenting news events from 1840 to the present day.
- The Harrison Institute/Small Special Collections Library houses the [Mary & David Harrison Institute for American](#)

[History, Literature, and Culture](#) and the [Albert and Shirley Small Special Collections Library](#). The Harrison Institute fosters scholarly collaboration and interdisciplinary discourse through its exhibitions, conferences, symposia, and visiting scholars program. Foremost among the 286,000 rare books and over 15 million manuscripts of the Small Library are the Albert H. Small collection of autograph documents and rare, early printings of the Declaration of Independence; the Tracy W. McGregor Library of American History; the Clifton Waller Barrett Library of American Literature; the William Faulkner Collection; the Douglas H. Gordon Collection of French Books of the sixteenth to nineteenth century; and many Virginia collections, including papers and architectural drawings of the University's founder, Thomas Jefferson.

- The Fiske Kimball Fine Arts Library serves the School of Architecture and the art and drama departments by supporting curriculum and research needs. The library's collection covers architecture, including building construction and engineering, architectural restoration, environmental design; history of architecture; landscape architecture; urban planning; studio art; art history, theater history, and technical aspects of theater production. Faculty and students in these programs use the library's extensive digital image and slide collections for their teaching, learning, and research.
- The Education Library primarily supports the teaching and research initiatives of the Curry School of Education. It is both a graduate- and undergraduate-level collection with research strengths in administration and supervision; clinical and school psychology; communication disorders; counselor education; educational psychology; higher education; instructional technology; kinesiology; prevention in education sciences; psychology and education of the gifted; risk and teacher education; social foundations; sport and exercise psychology; research statistics and evaluation; special education; and student affairs practice in higher education. The collection includes the ERIC Microfiche Research Collection, education dissertations and theses, and a juvenile and young adult collection.
- The Music Library collections support the curriculum of the McIntire Department of Music in performance, musicology, ethnomusicology, composition, and music theory. The library maintains additional collections in the science and physics of musical sound and musical instruments, sound recording techniques and equipment, computer-generated music and sound, vocal production, and psychoacoustics. Recent curricular changes have caused the collection to expand into areas of popular music and gender studies. Materials in the collection include not only books and journals about music, but also printed music for both study and performance, and sound and video recordings.
- The Charles L. Brown Science and Engineering Libraries provide resources and services to students and faculty in astronomy, biology, chemistry, engineering, environmental science, mathematics, physics, psychology, and statistics. These libraries include a main library and five smaller satellite libraries.
- The main Science and Engineering Library contains books, journals, and other materials in all areas of science and technology. The majority of undergraduate science materials are in this library, along with graduate-level collections in environmental science and all of the engineering specialties taught at the University. The library also maintains a comprehensive reference collection, a strong history of science and technology collection, and a growing collection of electronic journal databases, data sets, and other documents in electronic formats.
- The Astronomy Library is primarily a graduate- and research-level collection with strengths in astrometry, extragalactic astronomy, planetary astronomy, radio astronomy, space astronomy, stars and stellar evolution, and theoretical and high energy astrophysics. The library also supports the Virginia Institute of Theoretical Astronomy, which has programs in accretion disks, cosmology, galaxy clusters, the interstellar medium, protostellar evolution, and supernovae.
- The Biology/Psychology Library is a graduate- and undergraduate-level collection with research strengths in developmental biology, molecular genetics and cell biology, population biology and evolution, neurobiology and behavior, and seven areas of psychology (clinical, cognitive, community, developmental, psychobiology, quantitative, and social). The library also supports programs in biophysics and biological timing. In addition, the library works closely with the staff of the Mountain Lake Biological Station in support of their programs in ecology and evolutionary research.
- The Chemistry Library is primarily a graduate- and research-level collection with strengths in a wide variety of areas including laser spectroscopy, molecular emission, mass spectrometry, neutron activation analysis, chemometrics, infrared spectroscopy, microscopic level descriptions of molecular structure and processes, synthesis of natural and unnatural compounds, organometallic chemistry, catalysts, the interface of inorganic and biological chemistry, photochemistry, solid state chemistry, and the disciplines of bioorganic, bioinorganic, and biophysical chemistry.
- The Mathematics Library is primarily a graduate-level collection with strengths in applied mathematics, algebraic geometry, algebraic topology and K-theory, analytic number theory, combinatorics and coding theory, ergodic theory, group theory and representation theory, harmonic analysis and special functions, history of mathematics, mathematical physics, mathematical statistics, nonassociative algebra, operator theory and function theory, partial differential equations, probability, and real analysis.
- The Physics Library is both a graduate- and undergraduate-level collection with research strengths in atomic, molecular, and optical physics, biological and medical physics, chemical physics, condensed matter physics, engineering physics, experimental gravitational physics, high energy physics, mathematical physics, nuclear and particle physics, physics education, and theoretical physics.

In addition to the 13 facilities described above, the University Library also provides the following resources:

- The University Library's [Electronic Text Center](#) delivers a collection of electronic texts (numbering 22,312 for the 2005 fiscal year), including materials in 15 languages. Especially notable are the collections in English and American literature and the history of philosophy.
- The [Geospatial & Statistical Data Center](#) houses maps, geospatial data, and social science data sets. Much of the information is digital, but it also includes physical map collections, paper copies of many codebooks, software manuals, and reference books pertaining to spatial and statistical analysis. The center also provides a variety of online GIS data with a particular focus on data about the state of Virginia.
- In the 2005 fiscal year, the University Library owned 732,528 items of Government Information Resources in both print and electronic format. The University Library is a depository for publications issued by the United States and Commonwealth of Virginia governments as well as for the publications of the United Nations, the European Union, and the World Trade Organization. The library also collects extensively from the Organisation for Economic Co-operation and Development, World Bank, UNESCO, International Monetary Fund, International Labour Organization, and other international governmental organizations.

- Reference material collections include dictionaries and encyclopedias in both print and electronic format; online catalogs and book-finders such as *Books in Print*; directories with company and industry information; biographical sources and information about the U.S. and international governments.

The Health Sciences Library

The Claude Moore Health Sciences Library offers a comprehensive collection of materials in biomedical and health sciences literature to support the University of Virginia Health System patient care, teaching, and research programs. In addition, the Library serves as a resource for biomedical information for the community, the Commonwealth and the nation as a member of the National Network of Libraries of Medicine.

As of June 30, 2005, the Health Sciences Library collection contained 195,296 printed volumes, 2,281 serial subscriptions, and 15,296 microforms. The Health Sciences Library's non-print materials included 31,172 graphic materials, 1,304 sound recordings, 2,773 films and videotapes, and 67,378 digital objects. The Library's electronic resources included 1,688 journal titles and 382 book titles.

The [Historical and Special Collections Division of the Library](#) houses historical material. Included in this collection are the *Adolph Lomb Optical Collection*, the *Phillip S. Hench Walter Reed Yellow Fever Collection*, and the *Kerr White Health Care Collection*.

The Law Library

The Law Library is one of the largest law libraries in the country. Its collection includes a comprehensive research library of Anglo-American law, with special emphases in several areas as determined by the curricular and research strengths of the School of Law. Maritime law scholars around the world know its outstanding Oceans Collection.

As of June 30, 2005, the Law Library contained 882,770 volumes and volume equivalents. The collection includes 260,265 printed monograph titles; 11,275 active serial subscriptions; and 13,392 microform titles. The Law Library collection surpasses the requirements set forth in the American Bar Association Standards for Approval of Law Schools.

The Law Library buys 22 percent of the Federal Depository Library Program holdings, tailoring Library collections to meet the needs of the University community. The library complies with the Government Printing Office's rules and recommendations for collection development and access.

Among the Law Library's special collections are titles chosen by Thomas Jefferson for the University Library when it opened in 1825, as well as first editions of leading scholars in English common law, including Glanville, Coke, Bracton, and Blackstone.

The Graduate School of Business Administration Library

This library supports the research and education needs of the University of Virginia's Darden Graduate School of Business Administration. This is accomplished by the acquisition, organization, preservation, and provision of access to business information resources pertinent to the curriculum and research activities of the Darden community.

As of June 30, 2005, the library contained over 103,175 printed volumes. The collection includes 1,600 printed monograph titles and 400 active serial subscriptions. The electronic journal collection includes access to over 8,400 titles. The library allocates 40 percent of the library annual operating budget for the purchase of business information resources.

The library includes a comprehensive research collection of business information resources in both printed and digital formats. Collection development activities reflect the graduate level business curriculum, faculty research activities, and mission statements of Darden research institutes.

3. Collaborative Associations

The University of Virginia supplements its library collections through collaborative associations with other institutions. For example, the Interlibrary Loan Service obtains materials not owned by the University from libraries around the world.

The University of Virginia is a member of [The Virtual Library of Virginia](#), a consortium of the nonprofit academic libraries within the Commonwealth of Virginia that provides access to digital resources, including journals, reference sources, and citation/indexing/abstracting databases. The consortium is funded primarily through direct appropriation from the Commonwealth of Virginia, but funds from individual institutions, including the University of Virginia, supplement this appropriation. The University community benefits by receiving access to additional electronic resources; e.g., in the 2005 fiscal year, 32 percent of articles downloaded through the University Library were funded by this program.

The University also participates in ad hoc collaborations with other college and university libraries in Virginia to purchase access to high-impact and expensive materials, such as Elsevier's *Science Direct* and *GeoRef*.

The University Library's participates in multiple digital library research and development associations to further the development of digital initiatives. Collaborations include: Aquifer; Digital Library Federation and its Open Archives Initiative (a project funded by the Institute of Museum and Library Services); [Flexible and Extensible Digital Object and Repository Architecture \(Fedora™\)](#), the underlying infrastructure for the Digital Library Repository, developed jointly by the University Library and the Cornell Digital Library Research Group; and CLOCKSS (preservation of access to web-based collections).

During the 2005 fiscal year, new and ongoing grants and partnerships included a \$1,400,000 Mellon Foundation grant for the development of Fedora™ software and a \$50,000 Florence Gould Foundation grant to produce digital facsimiles of 16th-century books in the Douglas Gordon Collection.

The University Library is collaborating with the California Digital Library and the University of California libraries to develop digital tools for a large collection of digital materials related to the social and ecological diversity of the American west. The project is funded by the Hewlett Foundation.

In conjunction with the University of South Carolina, the Library is in the process of completing negotiations with Thomson Gale to digitize the fragile Brucoli Great War Collection. The published series will be freely accessible to the entire University community.

4. Selection and Adequacy of Collections

The University engages in ongoing efforts to ensure that its collections and resources are sufficient to support its educational, research, and public service programs. See, for example, the 2004-2005 University of Virginia Library Statistics Report.

The University Library

A Collections Group is responsible for the development of collections in all formats, materials fund allocation and

management, and coordination of selectors. Within the central University Library, more than 30 [subject librarians](#) manage over 300 funds accounting for \$7 million of the \$10 million collections budget. The subject librarians serve as liaisons to academic departments and programs in a decentralized manner, working with faculty and students to obtain library resources that meet their curricular and research needs. The University Library maintains subject guides relevant to each academic department that identify Internet and print resources located at the University and elsewhere.

The library determines the adequacy of its collections and its learning/information resources through review of user needs, as indicated through user requests; regular interactions between the various schools and the library's departmental liaisons; regular review of the University's academic programs and services; review of course curricula by the library's subject area specialists; and review of use statistics required by the Association of Research Libraries Standards for Libraries in Higher Education.

The Library's Management Information Services group is responsible for coordinating the gathering and reporting of management information throughout the library. The group uses the Library's [Balanced Scorecard](#) to provide specific metrics to determine the health and success of the organization. The metrics provide a view of the library organization from four perspectives: user, internal processes, financial, and future/learning potential. Results are reported to the library staff, are reviewed annually by the Library administration, and are used to evaluate and improve the performance of the Library.

One of the goals of the Management Information Services group is to assist with analyzing and evaluating library services and collections. For example, the following two metrics demonstrate that the Library is setting and meeting appropriate goals in these areas.

- *Metric:* The University Library strives to respond to the needs of its users in a timely fashion. *Goal:* The library has set an ambitious standard of filling requests for new materials: if a faculty member or student places a request for a title, the Library's goal is to have it in his or her hands in seven days. *Success:* In the 2005 fiscal year, the University Library succeeded in meeting this goal 62 percent of the time for books published in North America.
- *Metric:* In materials acquisition, the library gives priority to the research and curricular needs of current faculty and students. *Goal:* Reflecting this, it has set a goal that 50-60 percent of newly cataloged monographs should circulate within two years. *Success:* In the 2005 fiscal year, 59 percent of the books purchased two years earlier had circulated.

The University Library also assesses the adequacy of its collections and its learning/information resources during the annual review of its collections, collection size, number and types of resources, and expenditures in preparation for the University budget cycle.

The Health Sciences Library

The primary responsibility for selecting resources rests with the Health Science Library's Collection Development Committee. This committee determines the adequacy of the library's collections by adhering to its [Collection Development Policy](#), which explains the criteria used when selecting materials and resources for the collection. The Assistant Director for Collection Development chairs the committee, which comprises members from all Library departments. Committee decisions are guided by the expert advice of other Library staff, the recommendations and advice from library patrons, analysis of interlibrary loan use patterns, and the [Library's Mission](#). The Collection Development Committee prepares an annual Collections Budget that includes all of the print and online materials purchased or licensed by the Library.

Currently 43 percent (\$1.8 million) of the library's operating budget is allocated for purchasing resources for the collection. On average the library spends 75 percent of the collections budget on print and online journals, with the balance spent on monographs (books), standing orders (e.g., reference materials), site licenses for online databases, journals, computer software, and audiovisuals. The collections budget also includes a subsidy of the library's interlibrary loan/document delivery services. In recent years, there has been a greater emphasis on acquiring/licensing resources in electronic form, which is expected to continue. Some of the electronic collection budget items are planned in conjunction with the Alderman Library Acquisitions Department, and the cost is shared proportionally.

The Law Library

The Law Library's Collection Development Policy presents guidelines for areas of selection, collection size, and scope. The Law Library Director, guided by the Collection Development Policy and in consultation with faculty of the School of Law, works with a committee of selectors composed of individual librarians. The Law Library encourages School of Law faculty recommendations for purchase and frequently consults directly with faculty regarding selection decisions. The Law Library also welcomes student selection recommendations. As a member of the Federal Depository Library Program, the Law Library complies with the Government Printing Office's rules and recommendations for collection development and access.

The Law Library assesses its collection through user surveys, focus groups, faculty interviews, and participation in the American Bar Association Annual Survey and the Association of Research Libraries survey.

The Graduate School of Business Administration Library

This library assesses its collection through user surveys, faculty interviews, an annual comparative review of collections among graduate business school members of the Academic Business Library Directors, as well as participation in the Association of Research Libraries annual survey.

5. Access and User Privileges

The University of Virginia's Library System uses VIRGO to provide online access to the University Library Catalog with keyword searches; searches by author, title, journal title, and subject and call numbers. Online help screens and printed materials provide directions for using VIRGO effectively, and include instructions for accessing VIRGO from home and office computers. Find@UVA, Journal Finder and Article Finder are tools that provide all patrons with online access to over 90 licensed indexing and abstracting services providing access to over 40,000 journal titles. VIRGO provides access to over one hundred bibliographic and full text databases, such as Lexis-Nexis, WorldCat, Infotrac, Dissertation Abstracts, MLA Bibliography, and Web of Science. Non-University patrons are provided temporary guest passwords to gain access to VIRGO.

The University of Virginia Libraries seek to provide all patrons with a welcoming, comfortable, and safe environment that promotes free intellectual exploration, research, and learning (for example, see the University Library's [Vision and Guiding Principles](#)). Although each library primarily provides facilities and services for their school, all libraries welcome faculty, students, staff, researchers, alumni, members of the University community, and the general public. Library information, circulation, and eligibility policies set out guidelines on library access and user privileges to collections, resources, and services (See the University Library [Circulation Policy](#), the Health Sciences Library [User Eligibility Policy](#), the Law Library's [Circulation and Access Policies](#)). Information is disseminated through library web sites, in paper publications and brochures; through meetings with the Faculty Senate, the University Libraries Committee, the Library

Student Advisory Board, and academic departments; and via e-mail communication from Subject Librarians.

Each library maintains its own [Library Hours](#) suited to its constituents. For example, Clemons Library, which primarily serves the undergraduate population, is open 24 hours Monday through Friday; 9 a.m. to midnight on Saturday; and from 10 a.m. on Sunday. Access to the Health Sciences Library is provided 96 hours per week, with extended hours available during exam periods. A 24-hour study room is available for nursing and medical students. The Law Library is open daily from 8 a.m. to midnight; and during examination periods, it is open until 2 a.m.

The Vice President and Chief Student Affairs Officer disseminates information for students with disabilities, which includes accessibility and contacts for each library. Access to the facilities is available through official ADA-compliant entrances. The library staff assists students with disabilities in accessing library resources and using special machinery.

Through the Library's services and resources for students affiliated with the School of Continuing and Professional Studies, the University Library complies with all national guidelines to provide comparable resources and services to students and faculty outside the Charlottesville region. A Librarian dedicated to this constituency is available via telephone and on-line; she also travels to distant locations in the State to insure appropriate services are available. Information and a [Guide to Library Services for the Off-Grounds Students](#) at the University of Virginia are available on the Library's web site.

The Interlibrary Services Department provides access to materials not owned by the University. For the 2004 fiscal year, the University borrowed 27,702 items (loaned 41,656 items). The Library Express on Grounds delivery service delivers all internal and external faculty requested materials directly to their departmental mailboxes, desktops or teaching assistants.

6. Other Learning/Information Resources

In addition to library collections, the University supports student and faculty access and user privileges to other learning/information resources consistent with the degrees offered.

All members of the University of Virginia community are granted accounts for the general-use computing resources managed by the Department of Information Technology and Communication (ITC), including Central Mail Service (electronic mail systems), Blue Unix/Home Directory (file storage, personal web space), Netbadge (MyUVA portal, WebMail, and Network Registration), ESERVICES (lab and library access) and Instructional Toolkit (Class homepages).

ITC provides and maintains the network infrastructure to allow users access to University resources and the Internet. Virtually all University offices are linked to the Internet and each residence hall room includes a port to accommodate each student. ITC provides detailed configuration information for connecting students' computers to the University network.

See [Comprehensive Standard 3.4.14](#) for additional information about the University's uses of information technologies to advance teaching, learning, and research.

See [Comprehensive Standards 3.8.1](#), [3.8.2](#), and [3.8.3](#) for more information about the University libraries.

See [Core Requirement 2.10](#) for a discussion of student support services and [Comprehensive Standard 3.4.9](#) for a discussion of academic support services.

References

- [University of Virginia Library Statistics Report: 2004/2005](#)
- [Mary & David Harrison Institute for American History, Literature, and Culture](#)
- [Albert and Shirley Small Special Collections Library](#)
- [Electronic Text Center - link to live site](#)
- [Geospatial & Statistical Data Center - link to live site](#)
- [Historical and Special Collections Division of the Health Sciences Library](#)
- [Virtual Library of Virginia](#)
- [Subject Librarians](#)
- [Balanced Scorecard - link to live site](#)
- [Collection Development Policy - link to live site](#)
- [Health Sciences Library's Mission Statement](#)
- [Vision and Guiding Principles](#)
- [University Library Circulation Policy](#)
- [Health Sciences Library User Eligibility Policy](#)
- [Law Library Circulation and Access Policies](#)
- [Library Hours](#)
- [Guide to Library Services for the Off-Grounds Students](#)
- [Comprehensive Standard 3.4.14](#)
- [Comprehensive Standard 3.8.1](#)
- [Comprehensive Standard 3.8.2](#)
- [Comprehensive Standard 3.8.3](#)
- [Core Requirement 2.10](#)
- [Comprehensive Standard 3.4.9](#)

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Comprehensive Standards 3.8.2 - Access to Instruction

The institution ensures that users have access to regular and timely instruction in the use of the library and other learning/information resources.

Compliance Certification

The University of Virginia is in compliance with this standard.

Explanation

The University of Virginia provides extensive opportunities for regular and timely instruction in the use of the library and other learning/information resources.

1. Library Instruction

The University Library System provides orientation sessions, tours, individual tutorials, and a variety of short courses, in-class instruction, and online instruction. In 2004-05, the University Library offered 721 instructional sessions that were attended by 9,460 participants; the Health Sciences Library offered 559 instructional sessions attended by 4,531 participants; the Law Library offered 24 instructional sessions attended by 420 participants; and the Business Library offered 30 instructional sessions attended by 425 participants. (See [Core Requirement 2.9](#) for an overview of the University Library system.)

The University Library asks participants to evaluate all user-education sessions conducted by library staff, except for some orientation sessions. The evaluation asks participants to assess the content and usefulness of the class and the effectiveness of the instructor, to provide an overall rating of the session, and to suggest improvements. The University Library's Management Information Services department maintains an online database (the User Education Database) of all evaluations. All instructors receive individual results, and the [Balanced Scorecard User Perspective 2.0](#) reports overall instructor ratings. For 2005, overall user instruction met the target goal of 4.0 on a scale of 1 to 5, receiving a score of 4.35.

Orientation Sessions, Tours, and Individual Tutorials

At the beginning of the academic year, the Office of Orientation and New Student Programs includes scheduled 45-minute tours of the three main University Libraries (Clemmons, Alderman and Harrison-Small) in their program. For the 2005-06 academic year, nine tours were offered over the first nine days of the Fall semester. All students can arrange individual [library tours](#) throughout the semester. The University Library offers in-depth [research tutorials](#) to University of Virginia students, faculty, and staff as an introduction to the research of a discipline, to assist with specialized research projects, and to provide individual instruction in the use of online databases and other library resources. All of the University's teaching locations offer orientation sessions, and individualized and tutorial assistance are available to all off-grounds students.

Short Courses

Each library provides general and customized one-time sessions to meet the needs of its users and offers short courses in a variety of subjects, including using library resources, performing database searches, and the use of library-related products (e.g., bibliographic management software). For an example of a monthly short-course calendar, see the [Education Opportunities](#) web site for the Health Sciences Library. The Education Library offers [Short Courses](#), one-hour instruction sessions on a specific topic, at the beginning of each semester. In 2005-06, the classes included: 1) Introduction to RefWorks Bibliographic Management Software, 2) Getting Full Text Journal Articles Online, and 3) Doctoral Support Services.

In-Class Instruction

Faculty integrate research skills into their curricula in various ways, including by scheduling in-class library instruction sessions that may include general instruction in the use of the library, instruction on how to use specific technology, and classroom demonstrations on information-gathering skills. Library staff also assist faculty in designing sessions specific to their courses. For example, faculty can schedule sessions with the [Geospatial and Statistical Data Center](#) for classes that will use a data source housed there. Library instruction sessions can also cover such topics as citation of sources, evaluation of information from the Internet and other sources.

Library instruction is a requirement for all undergraduates enrolled in the English writing classes (ENWR 105) in the College of Arts and Sciences and for all first- and fourth-year students in the School of Engineering and Applied Science (STS 101 and 401).

Library staff teach both short courses and for-credit courses targeted to graduate students. These sessions include hands-on experience on all the significant databases in relevant fields of study (e.g., Law, Music), including research tools needed for specific methodologies and methods of access and retrieval. For example,

1. "Introduction to Literary Research" course (ENCR 801) is required for all new graduate students in the English Department; it includes two sessions in the library.
2. The Education Library offers a one-credit course called "Introduction in Information Technology" (EDLF 711), which introduces graduate students to information literacy skills.
3. The Fine Arts Library requires all beginning art history graduate students to take the one-credit course called "Library Methods in the Visual Arts" (ARTH 501).
4. The Law Library teaches customized courses in advanced legal research and a course in international and foreign legal research.

Online Instructional Aids

Many faculty members have worked with library staff to incorporate online instructional aids into the curricula for their classes. For example, the Fine Arts Library created the User Instruction web site for their three program areas (art,

architecture, and drama) includes research strategies specific to each program and links to relevant databases for each academic class. Library staff have created online [Finding Aids](#) (example from the Music Library) and Resource Guides to assist students and faculty. The Health Sciences Library's [Information for Medical Students](#) Web site includes program curricula, which links to course Web sites, lists of library resources available for each course, and user tutorials.

The libraries provide other online resources to students and faculty; e.g., the [Ask a Librarian](#) and [Searching the Internet](#) Web sites. Students and faculty may learn Refworks Bibliographic Software and Endnote Bibliographic Software through online instruction. In addition, the Library maintains Subject Guides by academic discipline identifying relevant internet and print resources

2. Library Reference Services

The University Library System offers reference services to University students, faculty, staff, and the public. During fiscal year 2005, the University Library recorded 70,080 reference questions (including one-on-one tutorials); the Health Sciences Library recorded 24,914; the Law Library recorded 18,400; and the Business Library recorded 5,800.

The University Library supplements its reference desks with an online [E-mail Reference and Real-Time Reference](#) site. Real-Time Reference is an instant-messaging service available 11 a.m. – 11 p.m., Monday to Thursday, 11 a.m. – 6 p.m. Friday and Saturday, and noon to 11 p.m. on Sundays. The Reference Tutorial Service is a research tutorial service that provides an introduction to the research of a discipline, assistance with specialized research projects, and individual instruction in the use of online databases and other library resources.

The Health Sciences Library offers the [Electronic Reference Desk](#), which provides up-to-date, health-related information from the Internet compiled by the Library's Information Services staff.

The major service point for law faculty reference questions is [Refdesk](#), an e-mail address for the exclusive use of law faculty. [Refdesk](#) can help with any inquiry about the Law Library, including acquisitions and circulation. Law Library staff fields more than 2,000 faculty queries each year, ranging from simple case requests to complex, substantive research projects.

3. Other Library Instructional Opportunities

Additional opportunities for library instruction include:

The Paper Clinic

The University Library collaborates with the Writing Center to offer the "Paper Clinic" to undergraduate and graduate students at the end of each semester. Students receive help from library staff and tutors from the Writing Center on refining their topics, finding books and articles, citing sources, and correcting grammar.

Harrison Partners

The University Library and the Undergraduate Research Network in the College of Arts and Sciences have established the Harrison Partners program to provide select undergraduate students with assigned subject librarians. The students conduct advanced research projects with the assistance of a subject librarian who can provide specific resources for their project.

4. Instruction in Other Learning/Information Resources

In addition to instruction and assistance in use of the library, the University also provides regular and timely instruction in the use of other learning/information resources, which includes the information technology and software that supplement and enhance the learning and research activities of students and faculty. The University's central information organization, the Department of Information Technology and Communication (ITC), provides specific training programs for students on how to access the University network (e.g., password retrieval); how to configure personal hardware to conform to the University's technology infrastructure (e.g., laptops); and instruction in the use of institutional administrative technology (e.g., online registration). [Comprehensive Standard 3.4.14](#) describes these programs.

Many University departments and units offer technical training to faculty, staff, and students, ranging from online tips to more formal skills-development programs. Centrally, the University's Office of Learning and Development provides fundamental skills classes. The following are examples of the various opportunities at the University of Virginia for regular and timely training in the use of a variety of learning/information resources.

Information Technology Short Courses

ITC provides targeted information technology courses and certain information technology training programs designed to meet the needs of medical and nursing students and persons conducting high-end computational research. Educational programs include one-on-one specialty classes, brief seminars, conferences, online videos, and computer- and video-based training. Programs cover such topics as Excel, PowerPoint, Web design and certification, and Dreamweaver. More advanced topics include animation and 3D, user collection tools, sound, still images, and video. During 2004-05, for example, ITC's Training Services Group conducted 113 classes, training more than 550 participants. During that same time period, the Office of Learning and Development offered 867 events to the University community.

Online Help and Training

The University Library system, ITC, and the Office of Learning and Development have extensive Web resources for online help and training. For example, ITC's Web site comprises some 11,000 pages of technical and IT security information, software distribution, and application tips, among other information. ITCWeb serves more than 1 million page views per month and people outside the University also use it extensively.

Web-based Training

The Office of Learning and Development's Web-based training service offers course content from the National Education Training Group (NETg KnowledgeNow). The program, which has been offered since 2003 to all University employees, includes access to more than 1,300 courses covering such topics as desktop applications, IT applications, and IT concepts and tools.

Advanced Research Topics

Staff in the [Research Computing Support Center](#) and [Academic Computing for Health Sciences](#) provide doctoral-level assistance for IT-intensive research. They also offer workshops, colloquia, and a monthly research computing newsletter. They train research assistants and provide workshops on the use of software for mathematical, statistical, and data analysis, among other topics. During 2004-05, the group logged 5,750 user contacts, a 27 percent increase over the previous year. Data from the fall 2005 semester showed that both students and faculty use the group's services, with 42 percent of contacts being with graduate students and 19 percent undergraduates.

Arts and Sciences Center for Instructional Technology (ASCIT)

ASCIT supports the use of technology in teaching in the College of Arts and Sciences. ASCIT provides comprehensive consultation services with faculty on creative ways to enhance classroom instruction with technology using several easy-to-use Web-based tools.

References

- Core Requirement 2.9
- Balanced Scorecard User Perspective 2.0
- Library Orientation and Tour Contacts
- Research Tutorials
- Education Opportunities
- Short Courses
- Geospatial and Statistical Data Center Instructional Support
- Finding Aids
- Information for Medical Students
- *Ask a Librarian*
- Searching the Internet
- Email Reference Site and a Real-Time Reference
- Electronic Reference Desk
- Paper Clinic
- Comprehensive Standard 3.4.14
- Research Computing Support Center
- Academic Computing for Health Sciences
- Arts and Sciences Center for Instructional Technology - link to live site

[Comprehensive Standards Home](#)

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