Standard 5 - Library and Information Technology

Standard 5.A - Purpose and Scope

The primary purpose of the library and information resources is to support teaching, learning, and, if applicable, research in ways consistent with, and supportive of, the institution's mission and goals. Adequate library and information resources and services, at the appropriate level for degrees offered, are available to support the intellectual, cultural, and technical development of students enrolled in courses and programs wherever located and however delivered.

5.A.1 The institution's information resources and services include sufficient holdings, equipment, and personnel in all of its libraries, instructional media and production centers, computer centers, networks, telecommunication facilities, and other repositories of information to accomplish the institution's mission and goals.

Montana Tech's Information Technology Department is a critical component of Information Resources. The Montana Tech Library and the Information Technology Department are two separate entities. Therefore, Standard 5 is addressed in two separate self studies: 1) Standard 5 – Library; and 2) Standard 5 – Information Technology. What follows is the Library section.

Standard 5.A.1 – Library

Mission and Goals

The Montana Tech Library on the North Campus has supported the institution's overall mission and goals for over a century. The library was established in 1900 when the original institution opened as the Montana State School of Mines. The First Annual Catalog (1900-1901) notes that the School of Mines was founded in response to the post Civil War growth of the mining industry which led to the "need of a special education in the sciences that stand related to the occurrence of ores, and their extraction and proper treatment."

Over the last century, the school grew and the curriculum diversified, and the library along with it. Currently, Tech's engineering programs continue to be the corner stone of the university, with more than half the student body enrolled in engineering and geosciences programs. These enrollments are followed by business and nursing. In addition, academic programs in the sciences, healthcare, and liberal studies have been established and continue to grow. Joe Janes, a nationally recognized librarian, noted in the December 2008 issue of *American Libraries* that "modern libraries have to be both somewhere and everywhere." Montana Tech Library is committed to providing a building (somewhere) which fosters learning and preserves its historical core print collections while enabling online access (everywhere) to scholarly resources and technologies that meet the needs of today's library users.

In addition to the North Campus faculty, students, and staff, the library supports researchers and staff at the Montana Bureau of Mines and Geology (MBMG). The Bureau is the principal source of earth science information for the entire State of

Montana; it is part of the university with offices on the North Campus and a field office in Billings, Montana. The library also serves students, faculty, and staff on the South Campus at the College of Technology (COT) where there is a small library within the Learning Center.

The library's primary goal is to provide resources, education, and services that support all academics at what is now called Montana Tech of The University of Montana. As declared in the Library Mission Statement, "Montana Tech Library is an integral part of Montana Tech, and its knowledgeable staff supports the university's mission by providing resources, education and services in a user-centered environment."

The library's mission is consistent with, and supportive of, the Montana Tech Mission "to meet the changing needs of society by supplying knowledge and education through a strong undergraduate curriculum augmented by research, graduate education and service."

The library provides services, resources, and education that are consistent with, and supportive of, the goals of the institution's Strategic Plan (see General Exhibit G.VII, *Montana Tech Strategic Plan*) including Goal 1 – "To Sustain and Enhance the Quality of All Academic Programs" and Goal 3 – "Enhance Research and Scholarly Activity. "

The library also supports institutional Goal 6 – "To Increase Enrollment" through its recruitment and retention efforts. The staff supports recruitment by welcoming potential students and their parents during campus library tours, by talking to them about specific library resources, and by providing them with informative handouts that describe library services for students. Librarians also play a unique retention role by providing students with positive, "outside-the-classroom" learning experiences and by establishing supportive one-on-one relationships that keep students engaged in their academic life and persisting in their studies. The Noel-Levitz Student Satisfaction Inventory indicates that their satisfaction with the helpfulness and approachability of library staff is significantly higher than the national average and has, moreover, increased steadily since 1997 (Figure 5.A.1-Lib).

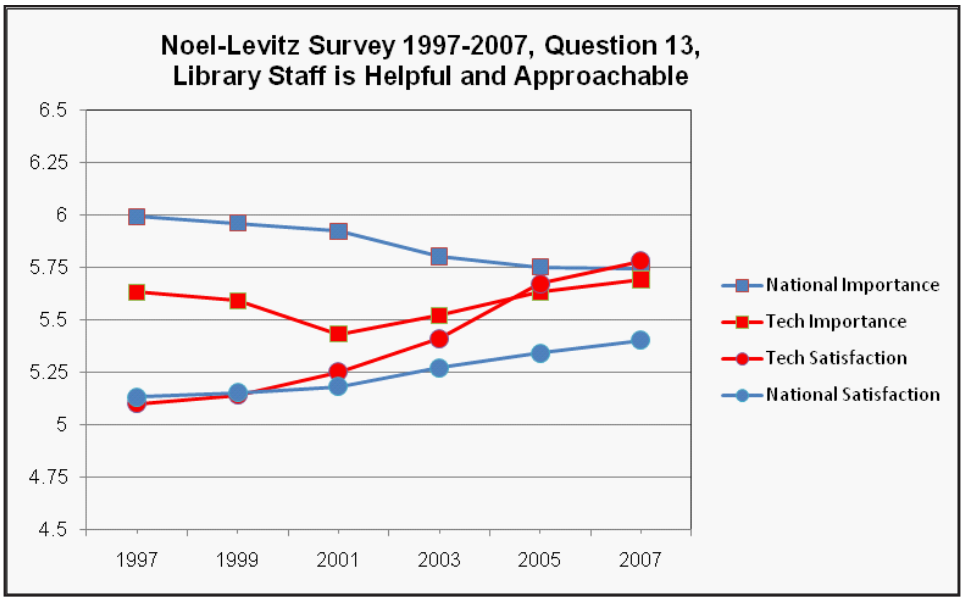

Figure 5.A.1-Lib, Student Satisfaction with Library Staff

HOLDINGS

The library has sufficient print and electronic holdings to support students, faculty, and researchers. To maintain sufficient holdings, librarians are responsible for developing collections in assigned subject areas. They make informed purchase decisions by regularly examining professional literature and resource lists required for specific disciplines. They also consult with faculty and serve on campus curriculum committees to keep up to date on any evolving program proposals that might affect library purchases.

Collections are provided in various formats including electronic, print, microform, and both CD and DVD. Most collections are held at the North Campus library, the only exception being a very small print collection at the COT. Most importantly, both North Campus and South Campus students have full access to all collections.

Print Collections

The library print holdings include 55,000 books, more than 400 current journal titles, and more than 1900 non-current journal titles (Required Exhibit 5.A.I-Lib, *Title Count-Cataloged*). The library also subscribes to 12 print newspapers (Required Exhibit 5.A.II-Lib, *Print Newspaper Collection*). Print resources also include 56,000 Federal Government documents, 20,000 State documents, 29,000 foreign documents (Required Exhibit 5.A.III-Lib, *Government Documents*), and U.S. Patent and Trademark publications from 1872-2004. The library's online catalog provides access to information for the print collections.

Unique collection features include extensive resources in Geology and Mining, with some historical journal titles dating back to the 1800s. The library has a collection

of 67,000 maps (Required Exhibit 5.A.IV-Lib, *Map Holding Counts*) some of which also date to the 1800s. Montana Tech is the only library in the State that catalogs MBMG publications. Another distinctive feature of the library is its Special Collections Room of rare books related to Butte, the State of Montana, mining history, and other related topics.

Electronic Collections

The electronic collections include 32,800 online journals (Required Exhibit 5.A.V-Lib, Electronic Journals), 58,000 e-books (Required Exhibit 5.A.VI-Lib, *Electronic Books*), and 2700 newspapers and news sources online (Required Exhibit 5.A.VII-Lib, *Newsbank® Access World News*). These extensive resources are accessible anytime, anyplace to the North and South Campuses and to the MBMG. Access to the e-collections is provided through the library's 150 subscription databases (Required Exhibit 5.A.VIII-Lib, *Database Subscriptions by Name*). These databases provide full-text access to most journals. Any items not available in full-text or not owned by the library are provided through the electronic ordering system for interlibrary loan called ILLiad®. The library catalog contains records not only for print book holdings, but also for e-book titles. The e-journals subscription titles are indexed in the *Journal Name List* link on the library's homepage.

Other Collections

In addition to the print and electronic collections, the library holds 109,000 microforms, 3700 CDs, and a new, growing collection of more than 100 DVDs. There are also 20 different software programs loaded on designated library computers. These change each semester, depending on courses (Required Exhibit 5.A.IX-Lib, *Software Loaded on Thin Clients*).

For details about the core collections held in the North Campus Library, see section 5.A.2.

The South Campus COT Learning Center's print collection includes 1300 books and 24 journal titles. It has full access to all North Campus electronic collections, and the Learning Center also has numerous software programs loaded on its computers. These resources support the COT vocational and certificate programs in business technology, trades & technical, health, and information technology.

EQUIPMENT

Sufficient equipment is available in Tech's library to meet all student needs. Computer usage statistics indicate there are sufficient workstations because all of them have never been in use simultaneously (Required Exhibit 5.A.X-Lib, *Average Total PC and Thin Client Use*). Computing equipment includes 15 PC workstations and 19 networked Thin Clients. (Thin Clients are computers without hard drives which operate on client-server architecture with a central server performing processing activities.) The combined 34 computers and Thin Clients provide unrestricted internet access, with

wireless access also available throughout the library.

To ensure that the library computers are regularly upgraded, a reference librarian serves on the Computer and Telecommunications Committee. Thus, all students benefit by having access to high quality technology in the library.

Another unique feature of Tech's library is that the first floor is designated for group study. The Information Commons (IC) is an open area where teaching, research, discourse, and collaborative learning are encouraged and fostered. The IC is comprised of the Thin Client Lab which is equipped with an overhead projector and dropdown screen. The IC also contains three printers, a copier, and a student scanner connected to a computer loaded with both PhotoShop® and Acrobat Professional®. It also includes a work area with miscellaneous office equipment (e.g. paper cutter, three-hole-punch, etc.) for student use. By design, it is adjacent to the Information Desk where librarians and library staff are immediately available to provide personal service.

Closing the Loop

In Fall 2007, the PCs in the Information Commons needed to be replaced. Rather than invest in new PCs, the Manager of Network Services and the Library Computer Support Specialist collaborated and installed a test lab with Thin Clients to determine whether or not this type of computing would lower the costs of long-term hardware maintenance and software support. A library student satisfaction survey (Required Exhibit 5.A.XI-Lib, *Library Student Satisfaction Survey 2008*) conducted later in the term identified students' concerns with the lab. Analysis of these survey results led to a careful study of the lab by the Library Computer Support Specialist and the Network Services Manager. Problems were identified and corrected.

The Thin Client Lab continues to provide learning experiences as new technologies are introduced. For example, in Fall 2009, testing was conducted in the lab on software called Wimba©, to give students audio access to recorded BlackBoard© lectures. It was discovered that Wimba© is not supported in the Thin Client environment by the vendor, so the library and IT staff continue to work on creating a solution. Meanwhile, audio access is available on the library's PCs.

Also a PC Computer Lab is located along the West wall of the first floor and computer workstations along the middle section. Because the floor is designated for group work, there are open areas with 22 study tables (many newly refinished) and a recently remodeled area near the windows where students frequently use their laptops. There are also 18 upholstered chairs, five couches, and four study carrels.

The second floor is the designated quiet floor with five study rooms that can be reserved for group study. Each one is equipped with a white board, study tables, and wireless access. Also, a portable TV/DVD player is available for use in the study rooms. The second floor provides areas for solitary study with 16 study tables, 27 study carrels, and ten upholstered chairs and six couches. It is also equipped with two computer workstations and a printer.

The library has never turned students away for lack of seating or study carrels, but every day during finals week, students compete for study room space. The library would greatly benefit by expanding this area. To close that loop, the library will work with the Vice-chancellor of Academic Affairs and the Space Planning Committee to have a vacated room on the second floor of the library designated as a multi-use/study room.

Equipment at the COT Learning Center includes 20 networked computers, three printers, and one scanner. Wireless access is also provided. For students with disabilities, there is one laptop, two voice-activated recorders, a reader for the visually impaired, and two microphone systems for the hearing impaired. The COT Learning Center also has a disability station to accommodate students in wheel chairs. For specific COT Learning Center software see Required Exhibit 5.A.XII.Lib, COT Learning Center Software.

Personnel

The library has sufficient personnel to meet the institution's mission and goals. A comparison of the student to library staff ratios with six peer institutions shows that Montana Tech ranks fourth (Table 5.A.I-Lib).

Table 5.A.I-Lib: Peer Comparison Student to Library Staff Ratio

Peer Institution Comparison			
Academic Library	**FTE***	**Staff****	**Ratio**
New Mexico Institute of Min & Tech	1451	11.00	132:1
South Dakota School of Mines & Tech	1738	10.00	174:1
Colorado School of Mines	4009	22.00	182:1
Montana Tech of UM	1666	8.11	205:1
Michigan Tech. University	6209	24.00	259:1
New Jersey Institute of Technology	6759	25.00	270:1
Missouri University of Science and Tech	5484	20.00	274:1

*Calculated by using latest available IPEDs FTE 2007 – Fulltime Students + (1/3) Part-time Students

**Calculated by using Library Staff Head Count

This standing indicates that library staff numbers are average, and they could be improved. Using the current Montana Tech FTE enrollment of 2438 and current library staff head count of 8.11 (same as in 2007), the ratio is even higher - 301:1. To improve this ratio, the library director continues to work with Montana Tech's administration to increase the hours of part-time library staff.

The library employs nine staff members (8.11 FTE) including a director, three reference librarians, one computer support specialist, two technicians in the Public Services Department, and two in technicians in the Technical Service Department. Together, the staff develops and carries out the library's strategic plan (Required Exhibit 5.A.XIII-Lib, *Montana Tech Library Strategic Plan 2009*) which supports the mission and goals of Montana Tech.

In addition to professional and classified staff, the library employs an average of eight student workers each semester and four during the summer. Student employees are assigned to work in specific library departments, but all are cross-trained to work at the front Information Desk as needed.

The Director of the COT Learning Center provides library services (.25 FTE) on the South Campus. Student employees are also available to assist students. A detailed description of the director's qualifications, competencies, and responsibilities is provided in Section 5.D.2.

5.A.2 The institution's core collection and related information resources are sufficient to support the curriculum.

Montana Tech Library faculty members have extensive knowledge about both print and electronic resources and are responsible for the collection as a whole. Overall, they ensure that the core collection is sufficient to support the curriculum by using standards for academic libraries that include professional guidelines and reviews and the library's policy on collection development. Tech faculty are consulted throughout the year and encouraged to recommend titles for purchase. As a member of the library committee, faculty act as liaisons to their departments and solicit department faculty to make purchasing requests to the library. Also part of the collection development process are title recommendations from both students and staff.

The library's Collection Development Policy (Required Exhibit 5.A.XIV-Lib, *Draft, Collection Development Policy*) is used to develop the core collection. The policy is currently under revision using standards developed by the Research Libraries Group and by Columbia University. The policy's new, extensive assessment criteria will ensure that the collection's scope, currency, and depth are sufficient to support the curriculum. For a detailed report on the policy, see Section 5.B.3.

Librarians also analyze discipline-specific core collection standards for accreditation or program approval in programs such as nursing and chemistry. They consult the nursing standards (Exhibit 5.A.XV-Lib, *Essential Nursing Resources*) produced for the Interagency Council on Information Resources in Nursing (ICIRN). Tech's nursing collections were assessed and approved by the National League for Nursing

Accreditation Commission in 2006. In collection development for chemistry, librarians consult standards developed by the American Chemical Society (Exhibit 5.A.XVI-Lib, *American Chemical Society Guidelines for Bachelor's Degree Programs*). The American Chemical Society reviewed the chemistry program including the library's chemistry collection, and the program was certified in 2007. In addition, the librarians also use the ABET standards (Exhibit 5.A.XVII-Lib, *Criteria for Accrediting Engineering Programs*) to develop the engineering collection. ABET assessed and approved all engineering collections in 2004, and will visit campus again in Fall 2010.

Decisions on acquisition of new and forthcoming publications and electronic resources are driven both by the curriculum and by the research needs of the greater university community. Librarians keep current on new and forthcoming publications through book reviews in professional journals such as *Choice*, and they regularly consult database reviews by professionals in the field in *Library Journal* (Required Exhibit 5.A.XVIII-Lib, *Database Subscriptions Rated by Library Journal*).

Academic departments are allocated book budgets annually, and librarians make recommendations to faculty and encourage them to submit titles for purchase. Every effort is made to fill faculty requests. Through these campus-wide collaborations, the collection as a whole is strengthened and maintained.

BOOKS

Print Collections

The library's print book collection, arranged by Library of Congress Classification, includes 55,000 titles and 78,000 items (Required Exhibit 5.A.XIX-Lib, *Item Count-Cataloged*) related to the academic programs with extensive coverage in geology, engineering, and mining. The collection also contains works that support the curriculum in biology, business, chemistry, computer science, healthcare informatics, humanities and liberal arts, mathematics, metallurgy, nursing, occupational safety and health, and professional and technical communication.

In the last five years, areas of the collection with time-sensitive resources, such as nursing and computer science, have been assessed and updated. Prior to 2008, the collection as a whole had not been reviewed for decades. To meet this challenge, the library invested in collection analysis software, and in Summer 2008, ran an extensive analysis by using the WorldCat Collection Analysis® tool (Required Exhibit 5.A.XX-Lib, *Print Book Collection Analysis by Subject* and Required Exhibits 5.A.XXI-Lib, *Print Book Collection - Analysis by Discipline*).

This analysis indicated the number of volumes by academic program (Table 5.A.II-Lib).

TABLE 5.A.II-LIB: COLLECTION ANALYSIS

Academic Program	Volumes
Engineering and Technology	12,600
Earth Sciences	5,400
Business & Economics	5,600
Medicine/Health	4,400
Liberal Studies	16,000

Closing the Loop

The collection analysis revealed that the collection contained scores of titles from the 1970's and 80's. This led to the decision, in October 2008, to launch a major book assessment project. The deans, departmental faculty, and researchers from the Montana Bureau of Mines and Geology all participated in the project. They evaluated books in the call number ranges relevant to their disciplines using specific evaluation criteria. As of summer 2009, more than 2000 books were withdrawn from the collection; Liberal Studies remains the last section to be assessed (Exhibit 5.A.XXII-Lib, *Book Assessment Project, Withdrawn Titles*). Project completion is expected by the end of the Fall 2009 term. This extensive project generated a clear campus-wide understanding of not only the strengths and weaknesses of the collection, but also of the need to withdraw out-dated titles and fill in the gaps with current titles.

Electronic Books

As vendors continue to improve the functionality of electronic books (e-books), their use on campus continues to grow. Faculty show increasing interest in using e-books in the classroom, and they are starting to request specific e-book titles for purchase. For the first time as of Fall 2009, the number of e-books in the collection (58,000) has surpassed the number of print books (55,000). However, e-books are sold in packages similar to those for cable or satellite television. The buyers get more than they will ever use or care about. It is anticipated in librarianship that, just like e-journals, as e-books use expands, the content and quality of the packages will improve. Currently, these collections do fill the need in the library for academic titles that support important but non-core curriculum subjects, especially in the humanities and social sciences. The packages are beginning to contain more engineering and technology titles, particularly in electrical and construction engineering.

E-books are accessible through two subscription packages from the library's website: *Ebrary® Academic Complete®* (44,500 titles) and *NetLibrary®* (10,800 titles). In addition, more e-books are starting to appear in previously "journals-only" subscription databases (2,700 titles). All e-books have records in the library catalog, are accessible both on and off campus, and are linked on the library's website.

JOURNALS

Print Serials (Journals, Newspapers, etc.)

A dramatic shift from print to electronic journals took place in 2004-05. Faculty and librarians collaborated and identified which print titles to drop in order to fund e-journal purchases. The print journal collection now includes only 419 current journal subscriptions which are primarily in biology, engineering, geology, in geophysics, metallurgy, mining, and in nursing. There are also 1900 non-current print journal titles on the shelves. The library subscribes to 12 newspapers in print.

Electronic Serials (e-journals, e-newspapers)

As of Fall 2009, the library owns access to 32,800 e-journal titles accessible through its 125 subscription databases. The scope and content of the databases support all academic programs. Usage statistics in Table 5.A.III-Lib illustrate that the most frequently used subscription databases reflect the major academic programs at Montana Tech.

TABLE 5.A.III-Lib: Most Frequently Used Databases

Most Frequently Used Subscription Databases 2005-2009	
Database	**Discipline**
Academic Search® Premier	Interdisciplinary
ScienceDirect®	Engineering/Science
WorldCat®	Books worldwide
InfoTrac®	Interdisciplinary
Engineering Village®	Engineering
JSTOR®	Liberal Studies
Business Source Premier®	Business
American Chemical Society	Chemistry
Springer®	Interdisciplinary
Netlibrary®	E-books, interdisciplinary
CINAHL®	Nursing
GeoRef®	Geology
CSA ®	Biology

An essential part of the electronic collection includes software tools that assist users in locating and accessing online resources. The library uses Serials Solutions® software to create its electronic "Journal Name List," which identifies and connects both to the library's 32,800 e-journal titles and content and to the titles of 4300 scholarly, open-access (free) journals accessible through internet searching. The list is updated monthly.

In addition to e-journals, the library provides access to more than 2700 newspapers and news sources online that include extensive back-files to the New York Times (1850-2005) and to The Washington Post (1877-1992). In December 2009, access became available to digital microform for Barron's, the Wall Street Journal, and for the Washington Post from 2008 forward.

Map Collection

The map collection includes more than 63,000 maps. Topographic maps from the U.S. Department of Interior and various types of maps from the Bureau of Land Management (BLM) are received regularly. There is also a collection of historic maps dating from the late 1800s. Only 8000 maps are cataloged, but all are accessible in flat file map cases and cabinets arranged by region, state, or map name. Although cataloging all the maps is a commendable endeavor, it is not a practical priority for the library (Required Exhibit 5.A.IV-Lib, *Map Holding Counts*).

Other Collections

Montana Bureau of Mines and Geology (MBMG) Publications

The library receives, catalogs and archives all MBMG publications. The collection includes 3600 items.

Superfund Information Resources

The library is a designated source for superfund publications and provides access to more than 260 official documents related to the cleanup and remediation of the largest Superfund site in the country - due to hazardous waste contamination from mining.

Selective Depository for the State of Montana

The library selects state documents related to environmental quality, health, and natural resources. The Montana Documents collection includes 2600 items. In addition, the library owns 17,400 geology related documents from other states.

Federal Depository Library Program (FDLP)

Since 1901, the Montana Tech Library has been a member of the FDLP. As a selective depository, the library receives 26% of all government publications each year, mostly in earth sciences and health. This collection was assessed in 2007, and scores of documents were donated to the full depository at the University of Montana Mansfield Library.

In keeping with its Collection Development Policy, the library retained its extensive and historic collection of government documents from the United States Geological Survey and the now defunct United States Bureau of Mines. Approximately 55,000 government documents are currently in these print collections. In addition, the library has approximately 73,000 U.S. Government Documents on microfiche.

Patent and Trademark Depository Library (PTDL)

In 1984, Montana Tech Library became the only PTDL in Montana. The library received print and microfilm copies of patents until 2001 and 1999 respectively, and print copies of trademarks until 2004. Currently, patents and trademarks are available online through the U. S. Patent and Trade Mark Office (USPTO) website and through its CD Rom-based computer system, CASSIS. CASSIS is available to users through a stand-alone computer in the library. In addition, a database for advanced patent searchers, PubWest, is available in the library which is unique to the entire Montana University System and to the State. Trademark searches may be conducted through the Trademark Electronic Search System (TESS) database online at the USPTO.

5.A.3 Information resources and services are determined by the nature of the institution's educational programs and the locations where programs are offered.

In addition to having sufficient collections which support the curriculum, library resources and services are based on the nature of the educational curriculum. Montana Tech librarians consistently match resources and services to educational programs by participating on committees, by communicating with faculty, and by building strong campus relationships.

The Library Director serves on the Curriculum Review Committee (CRC) to stay informed, anticipate change, and to make informed decisions on acquiring library resources to meet curricular needs. The CRC is responsible for reviewing and approving all curricular changes before bringing them to all faculty for approval. To change curriculum, faculty are required to complete the CRC Curriculum Change Request Form which contains the following library section: "I have consulted with (name of librarian subject specialist here), faculty member and librarian, and discussed the online and print resources needed to support this curriculum change, including existing resources and possible future acquisitions." The inclusion of the section on the form ensures discourse between teaching faculty and library faculty during the development of the curriculum, and fosters the use and integration of library resources into the learning process. It also helps build strong library collections determined by Tech's educational programs.

The Reference Librarians stay informed about the nature of educational programs by serving on the following campus committees: General Education Review, E-Learning, Instructional Improvement, Campus Computer and Telecommunications, Library, and Faculty Senate. As a result of these committee assignments, the librarians keep current about specific program needs as they emerge on campus.

Closing the Loop

The Reference Librarian who serves on the E-Learning Committee learned of the need to provide distance education students with online help in locating scholarly databases, books, and journals on specific topics. To meet that need, library guides were created that used LibGuides® software to develop an effective online tool that would enable students to quickly find relevant resources. Moreover, these guides were linked on the library's homepage (*www.mtech.edu/library/courseguides*) to provide 24/7, online access.

Librarians also stay informed about the nature of educational programs through professional relationships with the faculty in their assigned liaison areas (Required Exhibit 5.A.XXIII-Lib, Librarian Liaison Areas).They keep current on trends in higher education such as the paradigm shift from individual to group learning that led directly to the creation of the Information Commons (IC) to foster group study and learning.

Montana Tech librarians also collaborate with faculty to create and integrate formal undergraduate and graduate library instruction into the curriculum. They communicate early on with new faculty and provide services and resources relevant to their teaching and research needs. For example, in September 2009 they met with new writing and tutoring center faculty to discuss how the library can support the new campus

initiatives to improve student writing and research skills. Librarians also provide classes and training not only at the library, but also in numerous classrooms and labs on the North Campus and at the COT.

The educational programs are also supported with software on library computers. The library's Computer Support Specialist routinely works with Information Technology (IT) staff, faculty, and academic departments to update the course-related software loaded on library machines. These upgrades keep the library's resources relevant to the educational programs.

5.B – Information Resources and Services

Information resources and services are sufficient in quality, depth, diversity, and currency to support the institution's curricular offerings.

5.B.1 Equipment and materials are selected, acquired, organized, and maintained to support the educational program.

Materials

The library uses several methods in the selection, acquisition, organization, and maintenance of print and electronic collections that support educational programs. Print books and journals are selected collaboratively by Montana Tech librarians and faculty. Staff and students are also welcome to make suggestions; however, librarians make the final decision on any acquisitions.

Each Fall, the deans are notified of their book budgets (part of the library's capital budget). In turn, they allocate funds to each department. Faculty then submit title requests to their respective deans or department heads for review; and, if approved, these requests are submitted to the acquisitions librarian for purchase. If departments run out of funds, faculty are encouraged to submit all requests to the acquisitions librarian who consults reference librarians about using "general library" funds to fill requests.

Books are arranged by the Library of Congress Classification System, and titles are found by using the online catalog. Circulating books are located on the second floor, and reference books are on the first floor. Faculty assessed the book collection by using evaluation criteria from the revised draft of the Collection Development Policy.

Print Journals, both current and non-current, are shelved alphabetically on the first floor. Many non-current titles are retained because of their historical value, especially those related to mining. Some current titles are retained because of agreements with vendors who allow online access only if print subscriptions are continued. For example, the SpringerLink® database, which is purchased through the ESIG consortium, requires print retention and provides online access at substantial savings to the library. This practice is becoming less common as illustrated by the American Chemical Society's

recent decision to make most of its publications available only online. Accordingly, the library is planning a major assessment of its print journals in the Summer of 2010.

Selection and acquisition of online databases containing e-books and e-journals is determined by whether the library makes direct purchases from vendors or whether it partners with other libraries for purchasing. For direct buying, selection is done by Montana Tech librarians and is based on criteria outlined in the draft of the collection development policy. Montana Tech partners with the Montana State Library Cooperative (a state-wide group, which includes university library representatives), for purchase of databases relevant to Tech's educational programs.

For joint purchases with the University of Montana, selection decisions are made primarily by UM Mansfield librarians with limited input from Montana Tech. For the most part, this process works well and enables the Tech library to access numerous relevant databases. Because the UM curricula are less focused on science and engineering than Montana Tech, these database purchasing decisions favor humanities and social sciences.

E-books are available through subscriptions to NetLibrary® and ebrary® and are added to the library catalog by Mansfield library staff. These databases are accessible through links on the Montana Tech Library website. Database usage statistics are used to evaluate relevance and merit.

Organization of e-journals is accomplished through the *Journal Name List* described in section 5.A.2. This list is linked on the library website and can be searched in several ways, including keyword or title. It is maintained by Tech reference librarians, and regular updates to the list reflect the content changes due to changes in publisher's contracts with vendors. Updates are also made when the library adds new databases. In addition to e-subscriptions, the Journal Name List also provides access to selected, scholarly, and freely available open-access e-journals from Stanford's HighWire® Press and the Directory of Open Access Journals.

Maps are received regularly from federal and state agencies. They are shelved on the second floor in flat files or four-drawer file cabinets. They are arranged by type, size, or name as appropriate. Of the 63,000 maps in the collection, only 8000 are currently cataloged. A map index is available to guide users to maps which are not yet cataloged.

Equipment

Because technological equipment is a critical component of library operations, it is included in the operations budget. The library works closely with Montana Tech's Network Services and the University of Montana's (UM) Mansfield Library Systems department to provide servers that access both the library catalog and the databases. The catalog is shared with eight other libraries in Montana and is maintained by the UM Mansfield Library Systems Department. The catalog runs on Endeavor's Voyager software, and Montana Tech pays for its share of the cost. The UM service on the system is reliable, although there are sometimes delays in obtaining system reports and usage statistics.

Two staff computers in the Public Services Department are dedicated to the interlibrary loan system called ILLiad®. The system's server is located in and maintained by the UM Mansfield Library. Although the Tech Library pays UMM $1200 annually for ILLiad® service and support, the quality of support has been mixed and depends on the skills of UMM ILLiad® personnel. For example, when software problems arise, working with under-trained personnel causes unnecessary delays in providing resources to Montana Tech library users.

5.B.2 Library and information resources and services contribute to developing the ability of students, faculty, and staff to use the resources independently and effectively.

Montana Tech librarians contribute to independent and effective use of library resources and services through classes, individual and group instruction sessions, through seminars, training, outreach and through orientation presentations. The website also provides information which enhances the effective and independent use of resources.

Librarians and Chemistry Department faculty co-teach a two-credit, 300 level chemistry literature course which meets weekly in the library. It provides students with guided, hands-on experience in finding scientific and technical information and has produced excellent results.

Librarians also develop information competency skills through library instruction sessions which are tailored to specific classes and which usually last 50 minutes. These sessions are offered to undergraduates in writing, speech, nursing, occupational safety and health, and in other classes as needed. Currently, librarians are assessing library instruction as a whole and are developing a comprehensive information competency plan to more effectively develop the abilities of undergraduates and graduate students (Exhibit 5.B.I-Lib, *Draft, Information Competency Plan*).

As part of the competency plan, librarians are currently addressing NWCCU Standard 2.A.8, "Faculty, in partnership with library and information resources personnel, ensure that the use of library and information resources is integrated into the learning process." Thus, librarians are in the beginning stages of collaboration with the new Director of Writing from the Professional and Technical Communication Department, the new Director of the Learning Center, and with other key teaching faculty. The goal is to effectively integrate information literacy into the curriculum. They are also working through the General Ed Review Committee to generate innovative ways of making information literacy a required part of Montana Tech's overall curriculum.

Every day in the library, librarians provide one-on-one training. They introduce students to services such as interlibrary loan and train them how to find, access, and assess information for research papers. They provide in-depth consultations to graduate students and introduce them to advanced materials and resources related to thesis research. In outreach efforts, librarians also meet with faculty in their offices to help

them develop skills in searching and information retrieval.

Moreover, to aid in independent access, librarians provide links to indexes and databases through the library's homepage portal. They use LibGuides® software to create interactive finding aids for both students and faculty that aggregate numerous subject-specific resources in one place.

The website server is maintained by Network Services which is housed in an adjacent building. Montana Tech's Network Services links to the internet through the University of Montana-Missoula and has consistently provided reliable and uninterrupted service. In August of 2008, Tech's Network Services completed a major renovation and equipment upgrade in the Data Center to maintain continuing service as system demands increase.

5.B.3 Policies, regulations, and procedures for systematic development and management of information resources, in all formats, are documented, updated, and made available to the institution's constituents.

The Collection Development Policy is the principal document used for developing and managing all library resources. Currently under revision, it will contain specific procedures and criteria which govern acquisitions, withdrawals, scope, content, authority, and currency. For the draft of the revised policy, see Required Exhibit 5.A.XIV-Lib, *Draft, Collection Development Policy*.

The Public Services and Technical Services departments have current, comprehensive Policies and Procedures manuals to manage information resources in their departments. These include polices for lending and borrowing and for cataloging and shelving (Required Exhibit 5.B.II-Lib, *Public Services Policies and Procedures Manual* and Required Exhibit 5.B.III-Lib, *Technical Services Policies and Procedures Manual*).

5.B.4 Opportunities are provided for faculty, staff, and students to participate in the planning and development of the library and information resources and services.

Both faculty and students participate in library planning and development through membership on the Library Committee. This committee is comprised of 25 faculty (two from the COT), two student senators, and a representative from the Montana Bureau of Mines and Geology. They serve as direct advisors to the Library Director. Committee members are charged with informing their constituents about library resources and services. Faculty also help with library development by making regular requests for book purchases and intermittent suggestions for journal or database purchases. As mentioned in 5.A.3, the Curriculum Review Committee requires all faculty to submit library resources for both course content changes and for new courses.

5.B.5 Computing and communications services are used to extend the boundaries in obtaining information and data from other sources, including regional, national, and international networks.

Montana Tech Library staffers are quick to recognize the opportunities afforded by online access to library resources. Wherever possible, they take advantage of opportunities to make the library's resources available through websites at the local, regional, national, and international levels. Almost all of the library's electronic resources are available through the web with IP authentication and user authorization through a proxy server. Librarians monitor the constantly emerging opportunities to make the library's collections available on the open web.

The library extends its boundaries through participation in *Open WorldCat*®, a project that makes the library's holdings more visible to Web users and that increases awareness of the library as a primary source of reliable information across the internet. Also, librarians provide a simple way for both students and faculty to search scholarly literature on the internet through *Google Scholar*™ and *Pubget*, which is a search engine for the life-sciences. Moreover, the library's boundaries will expand even further with the digitization of Montana Tech's Masters theses collection which is scheduled to begin in Fall 2009 as the result of a $35,000 allocation from the university's Executive Budget Committee. The library staff is also developing an online collection of the university's yearbooks by using ContentDM® software.

Network Service staff efficiently supports all efforts to extend access beyond the library by providing quick and reliable computing and telecommunication services. The library depends on these fast and reliable connections not only to provide online access but also to obtain and disseminate interlibrary loan requests.

Standard 5.C – Facilities and Access

The institution provides adequate facilities for library and information resources, equipment, and personnel. These resources, including collections, are readily available for use by the institution's students, faculty, and staff on the primary campus and where required off-campus.

5.C.1 Facilities

The university's main information repository is the North Campus library which was built in 1978. The two-story, 33,600 sf structure has since undergone upgrades, primarily in wiring for computers.

Moreover, the library administration long-recognized the need to improve the library's pre-computer age infrastructure and in 2005 received $20,000 from Montana Tech's administration to develop an extensive renovation and expansion plan for the North Campus library building.

The original plan called for expansion and renovation of the library, addition of parking spaces, and improvements to the street and sidewalk connecting the library to the rest of campus. The cost was almost $9M (Required Exhibit 5.C.I-Lib, *Long Range Building Plan*). However, over time, the plan was modified to include only renovation of the library interior for $3M, and that modified plan is now a permanent part of the Montana University System Long Range Building Plan.

Meanwhile, Tech's library administration continues to advocate for the library renovation project simply because the growing demand for technology increasingly puts more strain on the infrastructure. In addition, building use continues to grow each year (Required Exhibit 5.C.II-Lib, *Gate Count*) as does demand for study room space. Somewhere along the line, a commitment must also be made to work on the deferred maintenance which puts the building at risk for further deterioration. In the interim, the library continues to make whatever facility upgrades it can, such as the 2008 Information Commons and open student areas already mentioned in Section 5.A.1.

In the last two years, improvements have also been made to the COT Learning Center. It has been renovated with new paint, carpet, and blinds.

Access

Either librarians or Library Technicians are available during all open hours to help users access all library resources and services. During the regular semesters, the library is open seven days, 79.5 hours per week; and during final exams, hours are extended for two weeks. The library offers printing and wireless access. Interlibrary loan is free to undergraduates for resources not owned by the library. Items are ordered electronically via the ILLiad® system.

Reference service is available 24/7 through the "Ask-a-Librarian" service link on the library homepage. Off-campus access to subscription databases is available 24/7 to all students, faculty, and staff through the library website simply by using campus I.D. numbers. Library access is also provided through the BlackBoard® course management system.

Complete library services are also provided for researchers, faculty, and staff of the Montana Bureau of Mines and Geology -- both on the North Campus and at its field office in Billings. In addition, Alumni and off-campus users have access to print and online resources in the library building and to interlibrary loan at cost.

The COT Learning Center is open 8-4:30 M-F during the Fall and Spring semesters. Summer hours are 8-4:00 M-F. With handicapped access, the center and its library services include basic reference assistance, interlibrary loan, and circulation. The student computers provide the same access to online collections as does the North Campus library.

5.C.2 In cases of cooperative arrangements with other library and information resources, formal documented agreements are established. These cooperative relationships and externally provided information sources complement rather than substitute for the institution's own adequate and accessible core collection and services.

The library has twelve written agreements with state, regional, and national institutions. The library's formal, shared-purchasing agreement with the Montana State Library Cooperative significantly reduces database costs. The library is a member of BCR, a library cooperative which also provides reduced rates for resources. As a member of the ESIG Library Cooperative, the library has formal agreements with the database vendor, Springer-Science. In addition, there is a formal Memorandum of Understanding between the library and the U.S. Patent and Trademark Depository Library Program. (Required Exhibit 5.C.III-Lib, *Formal Written Agreements)*.

Although the Montana Tech library has no formal acquisitions agreement with the UM Mansfield library, potential database purchases are sometimes discussed among the affiliate campuses. However, the final purchasing decision rests with UM Mansfield Library staff. Whenever possible, Mansfield librarians negotiate to include the affiliate campuses in licensing contracts. While Montana Tech is not obligated to purchase databases, sometimes there is pressure to participate. For example, occasionally a resource comes up for purchase that is beyond the library's budget and/or irrelevant to Tech's academic programs. Never the less, Montana Tech is sometimes strongly encouraged to share in the cost.

Shared access often requires additional funding, and communication is established with all campus libraries to arrive at a fair cost share if possible. Current costs of shared database purchases reflect historical agreements and take into account inflationary increases and changes in vendors. For shared purchasing data 2005-2009, see Exhibit 5.C.IV-Lib, *Cooperative Database Purchases*.

Standard 5.D – Personnel and Management

Personnel are adequate in number and in areas of expertise to provide services in the development and use of library and information services.

5.D.1 The institution employs a sufficient number of library and information resources staff to provide assistance to users of the library and to students at other learning resources sites.

See Section 5.A.1 for a detailed description of sufficiency of library personnel and Table 5.A.1 for peer institution comparison.

5.D.2 Library and information resources staff include qualified professional and technical support staff, with required specific competencies, whose responsibilities are clearly defined.

The library has qualified staff with required competencies and clearly defined responsibilities. Professional staff includes a director, two full-time reference librarians, a part-time reference librarian, and five classified personnel.

Information Desk

Library staffers are assigned specific hours at the Information Desk, the single point-of-service for users. Cross-training in basic reference or circulation procedures is required for all Information Desk staff. Frequent referrals between reference librarians and Public Services staff are the norm and ensure that user needs are met.

The librarian's primary responsibility while working at the Information Desk is to answer reference questions. Public Services personnel principally assist users with interlibrary loans, course reserves, and circulation of materials. Student employees provide basic circulation services.

Professional Staff

The Library Director has a Master of Library and Information Science degree (MLIS) and is a tenured associate professor with 13 years of academic library experience; she is responsible for all aspects of library administration including long-range planning, budget, personnel, facilities management and library promotion.

The two full-time Reference Librarians have MLIS degrees and are tenure-track assistant professors. One has applied for tenure this year; and together they have ten years of academic library experience. Overall, they provide a broad range of reference services that range from teaching freshmen how to access an online journal to consulting with faculty on in-depth research projects. Also, they collaborate with faculty on customized library instruction sessions. Every day, they deliver point-of-use instruction with hands on learning to individual students. Each Fall, librarians and chemistry faculty co-teach a 15-week course in Chemistry Literature. Throughout the year, librarians train both students and faculty to use new library resources such as RefWorks®, citation management software. In addition, they provide reference services to non-campus patrons, especially consultants and business people in engineering, mining, and in technology-related fields. Their duties also include giving library orientation sessions to new faculty and to freshmen and their parents. In addition, they must meet those research and service responsibilities which are required for tenure and promotion.

The part-time Librarian has a Master of Science in Education with certification as a Library Media Specialist and has worked in libraries for 13 years. She works 20 hours a week, mostly at the Information Desk answering reference questions.

For vitae of librarians, see Required Exhibit 5.D.I-Lib, Vitae.

Classified Staff

The library's Computer Support Specialist I has a Bachelor of Science in Information Technology and more than 22 years of academic library experience. She manages the Thin Client Lab and provides direct service to students when complex computer problems arise. The Computer Support Specialist I is also responsible for coordinating MetNet, a campus video conferencing lab located in a building adjacent to the main library.

The Public Services Department staff includes a Library Technician II with six years of academic library experience. She is responsible for interlibrary loan, circulation, and reserves. Also the department has a Library Technician I who holds a Master of Science in Computer Science and who has two years of library experience.

Included in the Technical Services Department is a Library Technician II with a Master of Science in Professional and Technical Communication. With ten years of academic library experience, she is responsible for cataloging all materials and also serves as editor for library reports and publications. The department also has a Library Technician I with more than nine years of academic library experience.

For detailed Role Descriptions of classified staff, see Required Exhibit 5.D.II-Lib, Role Description, Classified Staff.

COT

The director of the COT Learning Center devotes one quarter of her time to the small library there. She provides circulation and reference services, and teaches students how to access information from the library's website. She holds a Bachelor of Science in Microbiology and Master of Education in Curriculum and Instruction.

5.D.3 The institution provides opportunities for professional growth for library and information resources professional staff.

The library administration fully supports and funds faculty and staff attendance at conferences, seminars, workshops, webinars, webcasts, and at meetings which foster professional growth. Professional development provides the knowledge and skills necessary for the staff to stay current on the constant technological changes which are so much a part of today's academic library. Opportunities for growth encourage better performances, enhance careers, and raise morale. These growth opportunities are provided by professional organizations such as the American Library Association, the Pacific Northwest Library Association, and the Montana Library Association. For a detailed list of staff professional development opportunities see Exhibit 5.D.III-Lib, *Professional Development*.

5.D.4 Library and information resources and services are organized to support the accomplishment of institutional mission and goals. Organizational arrangements recognize the need for service linkage among complementary resource bases (e.g., libraries, computing facilities, instructional media and telecommunications centers).

The library has formal organizational arrangements with Network Services, the Library Committee, and with the COT Learning Center. These all enhance campus resources and services and maintain systematic linkages. As a result, Tech enjoys a strong, positive working relationship between the library staff and those Network Services personnel who support the library's computing infrastructure. Network Services staff do perform the initial set up of all library computers and provide back-up support for the library's software and hardware. When Network Services installed wireless in the library, they proactively collaborated with library staff to ensure good coverage. They continue to maintain the wireless service and also work closely with library staff to keep the Thin Client Lab running smoothly. When the Information Commons area was originally created, Network Services collaborated with the Library Computer Support Specialist and Library Faculty not only to design the layout, but also to select all the equipment and furniture for it. Moreover, this strong partnership carries over and is a crucial component in providing high quality online resources and services to Montana Tech students.

The Library Committee is another example of a critical service linkage. It is one of the university's important standing committees and is comprised of faculty from all academic departments and two student senators. This committee's primary mission is to promote the library resources and services to respective academic departments. The committee also advises the Library Director on formulating, revising, and upholding major library policies, including collection development.

The library also has an organizational arrangement with the COT Learning Center. The library's Technical Services Department is responsible for receiving, processing, and cataloging all new COT books and journals. After the new materials are "shelf-ready," they are then shipped to the South Campus COT. This service link eliminates costly duplication of materials processing. Finally, the COT Learning Center Director attends bi-weekly North Campus library staff meetings to maintain communication and a strong working relationship with the library.

5.D.5 The institution consults library and information resources staff in curriculum development.

The library is proactive in keeping informed on emerging curriculum development. The Library Director's membership on the Curriculum Review Committee as well as the committee's library requirement on the Curriculum Change Request Form (see Section 5.A.3) fosters consultation with library staff in curriculum development.

Librarians are proactive in keeping informed about other campus developments that may have an impact on the library. For example, in 2008, the university hired a Distance Education Coordinator, and the librarians are working with her to keep informed about

online curriculum development. Also, the General Education Review Committee has a new chair, and a librarian is now a member of that committee. Finally, the Instructional Improvement Committee includes a librarian who alerts the library staff on emerging curriculum plans that may affect the library.

5.D.6 The institution provides sufficient financial support for library and information resources and services, and for their maintenance and security.

Institutional support for the library has improved since 2001 when a short-fall in the university's budget cancelled all book budgets for that year. Since then, sound fiscal management by university administrators has resulted in some funding increases. As indicated in Figure 5.D.1-Lib, the Salaries Budget increased during the last three years – the 2005 drop was due to salary savings from a staff retirement. The Capital Budget increased slightly in the last three years – the 2005 drop was the result of a shift from print to electronic journal subscriptions. The Operations Budget also increased slightly in the last four years - the 2005 drop occurred when the maintenance payment for the Integrated Library System software was moved from the Library Budget to the Montana Tech Budget.

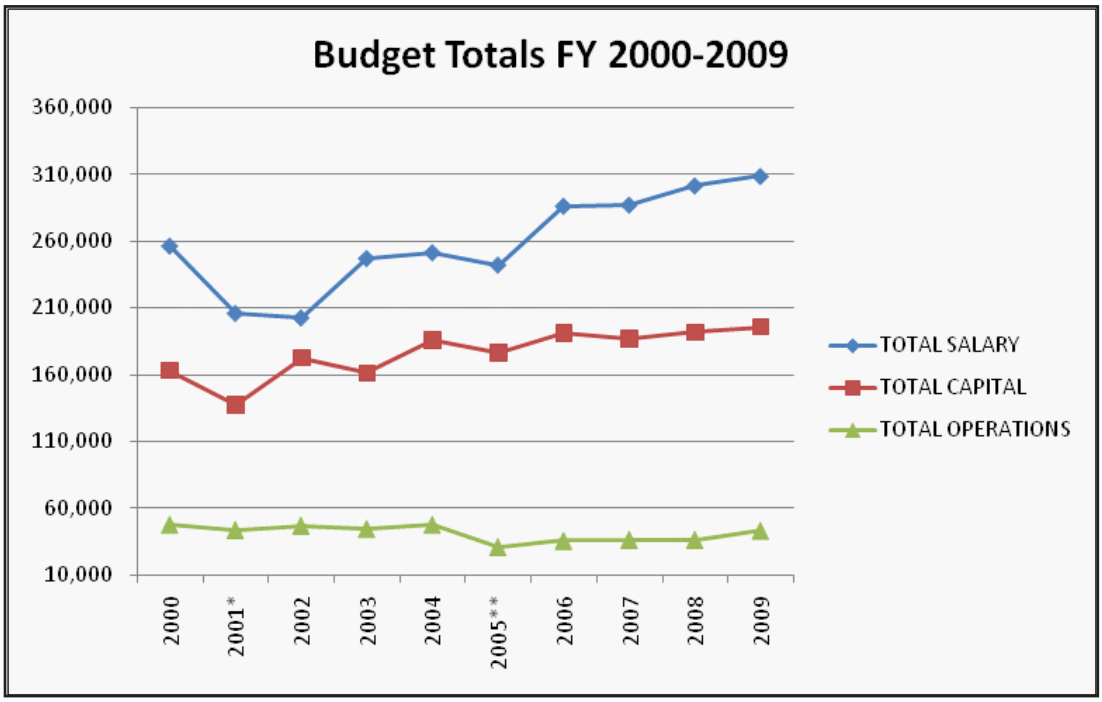

Figure 5.D.1-Lib, Library Budget Totals

Over the last five years, the administration also allocated $20,000 to develop a long-range plan to expand and renovate the library. Part of the plan was $11,000 for a new security gate and in 2008, $52,700 was allocated to build the Library Information Commons. Included in the commons was the Thin Client Lab and a research and learning area for students. In Fall 2009, the Executive Budget Committee also allocated $35,000 to begin a project to digitize Montana Tech Masters Theses.

The Research Office also supports the library by providing funds to purchase library resources. As research at the university continues to grow, the library resources necessary to support it also grow. To meet the increasing demand for research information, the library requested, and now receives a growing portion of the Facilities and Administration Budget (F&A) – formerly called Indirect Costs (IDCs). See Figure 5.D.2-Lib.

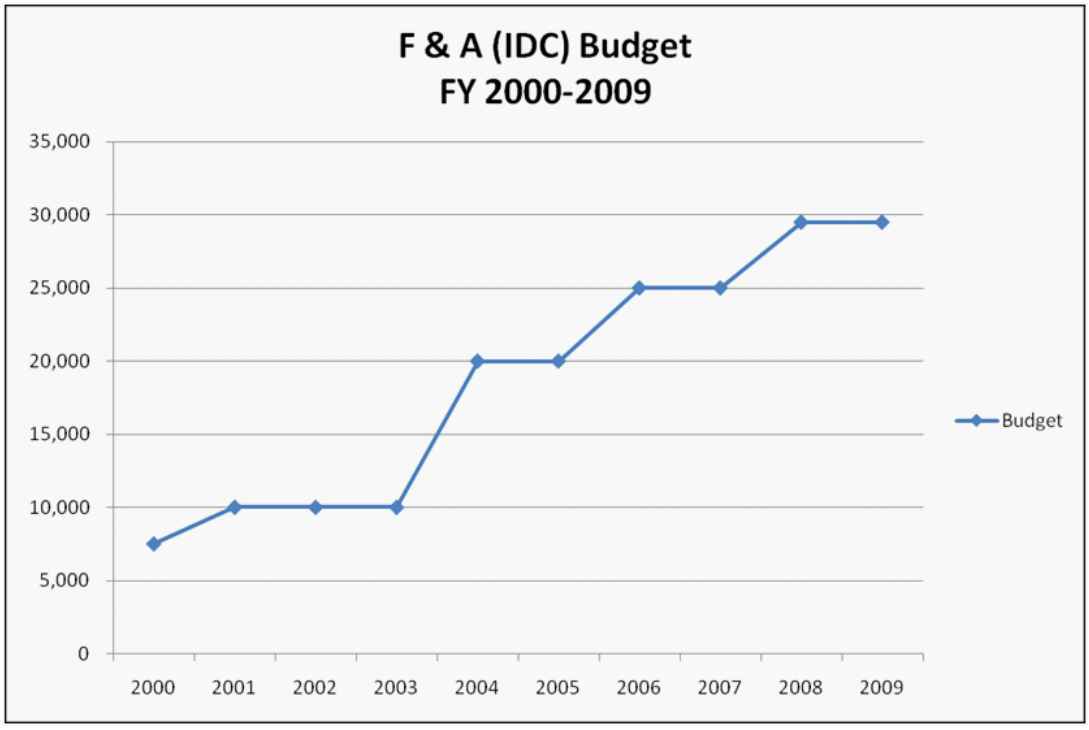

Figure 5.D.2-Lib, Increase in Library F&A (IDC) Funding

Both the emergence of the internet and the shift from print to electronic format – especially in e-journals – had a profound impact on academic library funding. For example, to access and manage the library's 32,800 electronic journal titles, software was purchased to produce the *Journal Name List* at an annual, rising cost of $12,000 (FY 2010).

In order to meet the increasing demand for online journals and books and to provide the technology to support them, the library increased its electronic resources budget over the last six years. This was accomplished by cancelling print subscriptions and shifting to e-subscriptions and by allocating to e-purchases that part of the budget increases originally intended for inflation. Savings were also realized through shared-purchasing to e-subscriptions. In addition, the library works closely with the university's Executive Budget Committee to dedicate the F&As for electronic resource purchasing. Here, the understanding is that if these funds decrease, so too shall library resources.

In addition to institutional financial support, the library also has a robust "Friends of the Library" group whose mission is to "enhance the resources of the library." Reestablished in 2003, Friends have contributed more than $10,000 to purchase white boards for study rooms, new carpet for the Information Commons, books to support the new Healthcare Informatics program, map cases, and a DVD display stand. They even funded reupholstering of arm chairs for student use and also contributed to the publication of a booklet (Required Exhibit 5.D.IV-Lib, *Montana Tech Library Expansion and Renovation*) to promote the library's expansion and renovation project.

The COT Learning Center is autonomous and has a small budget (about $3000) for books and journals. The Center has not received a budget increase in several years.

Standard 5.E – Planning and Evaluation

Library and information resources planning activities support teaching and learning functions by facilitating the research and scholarship of students and faculty. Related evaluation processes regularly assess the quality, accessibility, and use of libraries and other information resource repositories and their services to determine the level of effectiveness in support to the educational programs.

5.E.1 The institution has a planning process that involves users, library and information resource staff, faculty and administrators.

Strategic planning is an ongoing process to help the library set goals and priorities for the future and to provide a blueprint for reaching those goals. It also helps direct funding allocations. The library began formal strategic planning in 2003, and library staff, campus administrators, and students were included in the original process. The plan was updated in 2005 and 2008 with input from the library staff. For the complete Library Strategic Plan, see Required Exhibit 5.A.XIII-Lib, *Montana Tech Library Strategic Plan 2009*.

5.E.2 The institution, in its planning, recognizes the need for management and technical linkages among information resource bases (e.g., libraries, instructional computing, media production and distribution centers, and telecommunications networks.

Network Services is responsible for managing linkages among the library, instructional computing, and related information campus resource bases. The Library Computer Support Specialist works closely with Network Services to ensure good communication to meet user needs. For a detailed discussion of Network Service's role, see the IT portion of Standard 5, Section 5.E.3.

5.E.3 The institution regularly and systematically evaluates the quality, adequacy and utilization of its library and information resources and services, including those provided through cooperative agreements, and at all locations where courses, programs or degrees are offered. The institution uses the results of the evaluations to improve the effectiveness of these resources.

The library uses several methods to evaluate the quality, adequacy, and usage of library staff, resources, and services. These methods include university-required faculty and staff evaluations, surveys, usage statistics, and computerized collection analysis and assessment tools. Results of these assessments are analyzed and used to identify both strengths and weaknesses.

The Library Director reports directly to the Vice Chancellor of Academic Affairs and Research (VCAAR) for an annual evaluation according to the provisions in General Exhibit, G.IV, *Faculty and Staff Handbook*, Section 206.4, Performance Evaluation. The Director also provides library updates throughout the year to the VCAAR. Faculty Librarians report to the Library Director and are also evaluated annually according to provisions in the handbook. Classified staff report either to the Library Director or to their direct supervisor. They are evaluated annually using Montana University System Performance Reviews as required by the Human Resources Department.

Another evaluation tool used by the university is the Noel-Levitz Student Satisfaction Inventory. Questions #13 (see Figure 5.A.1) and #18 on the survey assess student satisfaction with the library staff, resources, and services. Over the last ten years, student satisfaction levels in all three areas increased steadily and are now above the national average (Required Exhibit 5.E.I-Lib, *Noel-Levitz Student Satisfaction Inventory, Questions #13 and #18*).

Faculty satisfaction with library staff, research resources, and support for student course work is indicted in the university's Faculty Senate Satisfaction Survey which was conducted in 2005 and in 2007. In both surveys, faculty satisfaction with the library staff averaged 97%, with research services 93%, and almost 70% with student course work support (Required Exhibit 5.E.II-Lib, *Faculty Senate Satisfaction Survey 2005,07*).

As noted in Section 5.A.2, an extensive analysis of the print book collection (Required Exhibit 5.A.XX-Lib, *Print Book Collection Analysis by Subject*; was conducted in 2008-09 using the WorldCat Collection Analysis® tool. Results of this analysis were used

to update the collection through a large scale weeding project. Purchasing decisions for electronic collections are based both on the expertise of the librarians and on reviews in the professional literature. Effectiveness is evaluated with usage statistics as shown in the following exhibits:

- Required Exhibit 5.E.III-Lib, *Database Usage Statistics*
- Required Exhibit 5.E.IV-Lib, *Database Hits by Year*
- Required Exhibit 5.E.V-Lib, *Circulation Statistics*
- Required Exhibit 5.E.VI-Lib, *Interlibrary Loan Statistics*
- Required Exhibit 5.E.VII-Lib, *Reserve Statistics*

Closing the Loop

Strengths

The strengths of the library include the faculty and staff, collections, and services. Faculty librarians are passionate about academic librarianship and meet their numerous responsibilities in library instruction, collection development, in reference, research consultation, publication for tenure, and in service to the community with professionalism and a positive attitude. They are leaders who actively participate on committees and bring fresh ideas to the campus. The library classified staff is highly educated and has a very strong work ethic. They consistently "go the extra mile" to provide service to the campus. The library has a positive reputation on campus because of its dedicated staff.

Collections are also one of the library's strengths. Students and researchers are enthusiastic about accessing the library's 32,800 journals online anytime. Historical researchers, geologists, and prospectors rely on the depth of the library's print collections for their research needs.

The campus community relies on the library's interlibrary loan service. If the library does not own an item, the ILL staff will find and borrow it. The library is student-centered. Students appreciate being able to reserve a study room, borrow a protractor, or get help with software problems while in the library. They also savor the "food rule" which allows them to eat their lunch in the library.

Closing the Loop

Opportunities for Improvement

Areas for improvement include library instruction, faculty consultation with librarians in curriculum development, growing demand for e-books, and upgrades to the facility. Integrating library instruction into the curriculum presents a significant challenge to the library faculty. However, there is opportunity for change as new personnel are hired and as the Gen Ed committee begins assessing the Gen Ed curriculum. An impending challenge in collection development also exists in meeting the demand for more and more e-books. The library facility also needs improving, and as the scope of the renovation project is modified, the possibility of upgrades to the building also improves.

Moving Forward

Library faculty will continue to promote integration of library instruction into the curriculum. The Library Director will continue to advocate for faculty consultation with librarians on curriculum development. The Director will also stay informed on the implications of e-books and will develop strategies to meet that growing demand. The Director will keep in mind, that because of the high cost of scholarly resources, the library will be the primary means of access to resources, whether in electronic or print format. Finally, the Director will continue to collaborate with university administrators to raise funds for library renovations.

Referenced Exhibits

5.A.1

General Exhibit G.VII, *Montana Tech Strategic Plan*

Required Exhibit 5.A.I-Lib, *Title Count-Cataloged*

Required Exhibit 5.A.II-Lib, *Print Newspaper Collection*

Required Exhibit 5.A.III-Lib, *Government Documents*

Required Exhibit 5.A.IV-Lib, *Map Holding Counts*

Required Exhibit 5.A.V-Lib, *Electronic Journals*

Required Exhibit 5.A.VI-Lib, *Electronic Books*

Required Exhibit 5.A.VII-Lib, *Newsbank® Access World News*

Required Exhibit 5.A.VIII-Lib, *Database Subscriptions by Name*

Required Exhibit 5.A.IX-Lib, *Software Loaded on Thin Clients*

Required Exhibit 5.A.X-Lib, *Average Total PC and Thin Client Use*

Required Exhibit 5.A.XI-Lib, *Library Student Satisfaction Survey 2008*

Required Exhibit 5.A.XII-Lib, *COT Learning Center Software*

Required Exhibit 5.A.XIII-Lib, *Montana Tech Library Strategic Plan 2009*

5.A.2

Required Exhibit 5.A.XIV-Lib, Draft, Collection Development Policy

Exhibit 5.A.XV-Lib, *Essential Nursing Resources*

Exhibit 5.A.XVI-Lib, *American Chemical Society Guidelines for Bachelor's Degree Programs*

Exhibit 5.A.XVII-Lib, *Criteria for Accrediting Engineering Program*

Required Exhibit 5.A.XVIII-Lib, *Database Subscriptions Rated by Library Journal*

Required Exhibit 5.A.XIX-Lib, *Item Count-Cataloged*

Required Exhibit 5.A.XX-Lib, *Print Book Collection Analysis by Subject*

Required Exhibit 5.A.XXI-Lib, *Print Book Collection - Analysis by Discipline*

Exhibit 5.A.XXII-Lib, *Book Assessment Project, Withdrawn Titles*

Required Exhibit 5.A.IV-Lib, *Map Holding Counts*

5.A.3

Exhibit 5.A. XXIV-Lib, *Librarian Liaison Areas*

5.B.2

Exhibit 5.B.I-Lib, *Draft, Information Competency Plan*

5.B.3

Required Exhibit 5.A.XIV-Lib, Draft, Collection Development Policy

Required Exhibit 5.B.II-Lib, *Public Services Policies and Procedures Manual*

Required Exhibit 5.B.III-Lib, *Technical Services Policies and Procedures Manual*

5.C.1

Required Exhibit 5.C.I-Lib, *Long Range Building Plan*

Required Exhibit 5.C.II-Lib, *Gate Count*

5.C.2

Required Exhibit 5.C.III-Lib, *Formal Written Agreements*

Exhibit 5.C.IV-Lib, *Cooperative Database Purchases*

5.D.2

Required Exhibit 5.D.I-Lib, Vitae

Required Exhibit 5.D.II-Lib, Role Description, Classified Staff

5.D.3

Exhibit 5.D.III-Lib, *Professional Development*

5.D.6

Required Exhibit 5.D.IV-Lib, *Montana Tech Library Expansion and Renovation*

5.E.1

Required Exhibit 5.A.XIII-Lib, *Montana Tech Library Strategic Plan 2009*

5.E.3

General Exhibit G.IV, *Faculty and Staff Handbook*

Required Exhibit 5.E.I-Lib, *Noel-Levitz Student Satisfaction Inventory, Questions #13 and #18*

Required Exhibit 5.E.II-Lib, *Faculty Senate Satisfaction Survey 2005,07*

Required Exhibit 5.A.XX-Lib, *Print Book Collection Analysis by Subject*

Required Exhibit 5.E.III-Lib, *Database Usage Statistics*

Required Exhibit 5.E.IV-Lib, *Database Hits by Year*

Required Exhibit 5.E.V-Lib, *Circulation Statistics*

Required Exhibit 5.E.VI-Lib, *Interlibrary Loan Statistic*

Required Exhibit 5.E.VII-Lib, *Reserve Statistics*

List of Tables

List of Figures

Supporting Documentation for Standard Five - Library

Required Exhibits (NWCCU Accreditation Handbook, p. 71, 2003 ed.)

1. **Printed materials that describe for students the hours and services of learning resources facilities such as libraries, computer labs, and audio-visual facilities.**
   a. *2009 Library Fact Sheet*
   b. *Library Hours/Due Date Bookmark*
   c. Screen Shot, North Campus Library Homepage
   d. Screen Shot, College of Technology Learning Center Homepage
   e. Screen Shot, Montana Bureau of Mines and Geology Homepage
   f. Floor Plan, North Campus Library

2. **Policies, regulations, and procedures for the development and management of library and information resources, including collection development and weeding.**
   a. 5.A.XIII-Lib, *Montana Tech Library Strategic Plan 2009*
   b. 5.A.XIV-Lib, Draft, Collection Development Policy
   c. 5.B.II-Lib, *Public Services Policies and Procedures Manual*
   d. 5.B.III-Lib, *Technical Services Policies and Procedures Manual*

3. **Statistics on use of library and other learning resources.**
   a. 5.C.II-Lib, *Gate Count*
   b. 5.A.X-Lib, *Average Total PC and Thin Client Use*
   c. 5.E.V-Lib, *Circulation Statistics*
   d. 5.E.VI-Lib, *Interlibrary Loan Statistics*
   e. 5.E.VII-Lib, *Reserve Statistics*

4. **Statistics on library collection and inventory of other learning resources.**
   a. 5.A.XX-Lib, *Print Book Collection Analysis by Subject*
   b. 5.A.I-Lib, *Title Count-Cataloged*
   c. 5.A.XIX-Lib, *Item Count-Cataloged*
   d. 5.A.VI-Lib, *Electronic Books*
   e. 5.A.V-Lib, *Electronic Journals*
   f. Database Subscription by Subject
      i. 5.A.VIII-Lib, *Database Subscriptions by Name*
   g. Software Loaded on Library Computers
      i. 5.A.IX-Lib, *Software Loaded on Thin Clients*
      ii. 5.A.XII-Lib, *COT Learning Center Software*
   h. 5.A.II-Lib, *Print Newspaper Collection*
      i. 5.A.VII-Lib, *Newsbank® Access World News*
   i. 5.A.III-Lib, *Government Documents*
   j. 5.A.IV-Lib, *Map Holding Counts*
   k. *Equipment Detail: equipment available for student use*
   l. *Summary: furniture/equipment available for student use*
      i. *Furniture: tables, chairs, workstations location inventory*

5. **Assessment measures utilized to determine the adequacy of facilities for the goals of the library and information resources and services.**
   a. 5.C.I-Lib, *Long Range Building Plan*
   b. 5.D.IV-Lib, *Montana Tech Library Expansion and Renovation*

6. **Assessment measures to determine the adequacy of holdings, information resources and services to support the educational programs both on and off campus.**
   a. 5.A.XX-Lib, *Print Book Collection Analysis by Subject*
   i. 5.A.XXI-Lib, *Print Book Collection - Analysis by Discipline*
   b. 5.A.XVIII-Lib, *Database Subscriptions Rated by Library Journal*
   c. 5.E.III-Lib, *Database Usage Statistics*
      i. 5.E.IV-Lib, *Database Hits by Year*
      ii. *Database Usage, Alphabetic Sort*
   d. *Headcount Enrollment by Degree, Fall 2009*
      i. *Enrollment Comparisons, Fall 2009*
   e. 5.E.I-Lib, *Noel-Levitz Student Satisfaction Inventory, Questions #13 and #18*
   f. *Noel-Levitz SSI, 1997-2007, Institutional Summary*
   g. 5.E.II- Lib, *Faculty Senate Satisfaction Survey 2005,07*
   h. *Library Satisfaction Survey 2008 Faculty/Staff*
   i. 5.A.XI-Lib, *Library Student Satisfaction Survey 2008*
   j. *Bibliographic Instruction, Students and Sessions*

7. **Data regarding number and assignments of library staff.**
   a. 5.D.II-Lib, Role Description, Classified Staff
   b. *Library FTE, Professional, Classified and Student Staff, FY 1999-2009*

8. **Chart showing the organizational arrangements for managing libraries and other informational resources (e.g. computing facilities, instructional media, and telecommunication centers).**
   a. *Organization Chart, Vice Chancellor Academic Affairs & Research*
   b. *Organization Chart, Montana Tech Library*

9. **Comprehensive budget(s) for library and information resources.**
   a. *Budget Summaries, Comparison of Salary, Operations and Capital, FY 2000-2009, Actual Expenditures*
   b. *Salaries, FY 2000- 2009*
      i. *Library FTE, Professional, Classified and Student Staff, FY 1999-2009*
   c. *Operations Budgets, FY 2000-2009, Actual*
   d. *Capital Budget Comparisons, FY 2000-2009, Actual Expenditures*

e. *F and A (ICD) Budget, FY 2000-2009*
f. *Cooperative Database Purchases, FY 2005-2010*
g. *Library Budgets (detail) FY 2000-2009*

10. Vitae of professional library staff.

a. 5.D.I-Lib, Vitae
b. 5.A.XXIII-Lib, *Librarian Liaison Areas*

11. Formal, written agreements with other libraries.

a. 5.C.III-Lib, Formal Written Agreements

12. Computer usage statistics related to the retrieval of library resources.

a. 5.E.IV-Lib, *Database Hits by Year*
    i. 5.E.III-Lib, *Database Usage Statistics*
    ii. *Database Usage, Alphabetic Sort*
    iii. Database Usage by Month
b. TABLE 5.A.III-Lib, *Most Frequently Used Databases*
c. 5.E.VII-Lib, *Reserve Statistics*
d. 5.E.V-Lib, *Circulation Statistics*
e. 5.E.VI-Lib, *Interlibrary Loan Statistics*
f. 5.A.X-Lib, *Average Total PC & Thin Client Usage*
    i. *Thin Client Usage*
    ii. *CPU Computer Usage*

13. Printed information describing user services provided by computing facility

Documentation for this section is provided in Part Two of Standard 5 – Information Technology

14. Studies or documents describing the evaluation of library and information resources.

a. *Book Collection Assessment Project 2008-09, Summary Report*
    i. *Process for Withdrawing Old Books*
    ii. *Library Committee Members*
    iii. *Color-coded Assessment Criteria*
    iv. *Collection Depth Indicator Definitions*

Exhibits

A.

5.A.XV-Lib, *Essential Nursing Resources*

5.A.XVI-Lib, *American Chemical Society Guidelines for Bachelor's Degree Programs*

5.A.XVII-Lib, *Criteria for Accrediting Engineering Program*

5.A.XXII-Lib, *Book Assessment Project, Withdrawn Titles*

B.

5.B.I-Lib, *Draft, Information Competency Plan*

C.

5.C.IV-Lib, *Cooperative Database Purchases*

D.

5.D.III-Lib, *Professional Development*

General Exhibits

General Exhibit G.VII, *Montana Tech Strategic Plan*

General Exhibit G.IV, *Faculty and Staff Handbook*