## Physical Resources

### 7.1 Overview

One of the Program's best features is the spacious facilities of the Library and Information Science Program, located on the ground floor of Hamilton Library, providing convenient access to the resources of the Program and the University's main library. The classrooms, laboratories, research and open study areas provide a functional and attractive learning environment for classes, practice sessions, individual study, and group work, as well as seminars and special programs.

Contiguous faculty and administrative offices complete a configuration conducive to communication among students, faculty, and staff and thus enhance the quality of student services. Convenient access to Instructional resources, particularly in information technology and distance learning, support excellence in the curriculum and provide for a dispersed student population in an island state. In short, the Program's facility and physical resources are sufficient to accomplish its mission, goals, and objectives [Standard VI].

# 7.2 Planning and Evaluation

An important strategic goal of the LIS Program is providing a quality learning and research environment for students and faculty (see Strategic Goal 4, Section 2.2.4). Within the structure of the overall strategic planning process, planning sessions are held at least once each semester, both to allocate current resources and to prioritize needs in order to be able to take advantage of windfall opportunities which may arise.

Facilities are primarily evaluated through student and alumni surveys and course evaluations. Surveys are conducted regularly and course evaluations each semester. Data from these surveys are consolidated and presented at planning sessions, as well as provided in more detail to the faculty involved. Evaluation data are fed back into both Program planning sessions and specific facilities planning sessions. The respondents to the 1998 Student and Alumni Surveys were well satisfied with classroom facilities and equipment (ratings of 5.0 and 4.8 of 6.0) (see summary results in Appendix 2, complete results on site). Student and Alumni Surveys gave high ratings to the proximity and availability of library resources (mean 5.6 for both surveys) and to the proximity and availability of computer resources (5.1 and 4.9, respectively).

#### 7.3 Facilities

Physical facilities include: 2 classrooms, several large conjoined study areas, 4 administrative offices, 12 faculty offices, 3 computer labs, 1 seminar room, 3 storage areas, a student organization office, and a dining lounge (see Appendix 13 for a map of the facilities). The spaces are designed for wheelchair access.

### 7.3.1 Classrooms and Seminar Rooms

The classrooms comfortably accommodate up to 32 persons, with tables and chairs that can be rearranged for diverse learning activities [Standard VI.2]. They are well-lit, air conditioned, and equipped with electrical outlets for all instructional technology. The seminar room accommodates up to 10 persons. Classrooms and the seminar room are well used for classes, oral examinations, meetings, conferences,

and special programs sponsored by LIS, CIS, and student organizations. The respondents to the 1998 Student and Alumni Surveys were well satisfied with classroom facilities and equipment (ratings of 5.0 and 4.8).

## 7.3.2 Computing and Network Facilities

The Microcomputer Lab, the Online/CD-ROM Lab, and the Technical Services Lab provide the information technology resources needed to meet educational goals and objectives [Standards VI.3, VI.4]. Equipment is continuously upgraded, with purchasing decisions reflecting priorities decided in facilities planning sessions and reflecting overall Program goals. Significant improvements have recently been made in all the computer labs of the Program. Collectively, they are equipped with 37 workstations, 14 printers (including laser and fax printers), and 2 flatbed scanners. (Appendixes 14 and 15 present hardware and software configurations and specifications for the labs.) The Internet can be accessed from all workstations and all are connected to the Program's local area network. Most of the PCs are interconnected to access large hard drives, laser printer, and CD-ROMs. The Technical Services Lab is available to students for independent work during all hours when the library is open. The Microcomputer and Online/CD-ROM Labs are monitored by student volunteers and have limited hours of operation. (See manual for LIS lab monitors on site).

The Microcomputer Lab provides hardware and software resources for database design and microcomputer applications classes, and, to a limited extent, mainstream applications (word processing, spreadsheet, and desktop publishing) used by students for their assignments. New PCs have recently been added, including three featuring Intel Pentium processors and two with Pentium II processors. The latter are capable of acting as servers in accessing CD-ROM drives, laser printer, and scanner from most of the PCs. This networking of local resources complements the Internet/Web access available from all workstations in the three labs. The Program also acquired additional CD-ROM and CD-ReWritable drives to demonstrate the potential and limitations of in-house CD-ROM publishing, an increasingly affordable method for information storage and retrieval.

The Online/CD-ROM Lab provides workstations for using online services and CD-ROM databases, including abstracting/indexing databases, national bibliographies, and trade catalogs, as well as full-text ASCII, text-image, and multimedia databases. The Program intentionally retains some legacy equipment, since these are still appropriate for textbases running under DOS and serve to acquaint students with some of the hardware they may encounter in the field. For the Windowsbased textbases and multimedia CD-ROM titles, new workstations purchased in 1997-1998 allow students to use leading edge library automation and reference applications as yet unavailable in the rest of the University or the State.

The Technical Services Lab supports instruction for cataloging, library automation, and other technical services classes. The lab has a Sun SPARCserver 20 server, two OCLC terminals, and 11 microcomputers used as smart terminals. Recently, the aging PCs with Intel 486 processors were replaced by more powerful Mac computers and two Dell computers for OCLC access. The server is used to implement a fully functional Geac ADVANCE integrated library system with a 20,000 item database, and the workstations contain graphic and page-layout programs for student use.

In addition, the computers of all faculty members have been upgraded to mediumand high-end PCs and Macs. Some are also equipped with CD-Recordable, CD- ReWritable, and DVD-ROM drives, which are used in information technology courses. The faculty PC used in the classroom has been upgraded to a Pentium II computer with built-in CD-ROM and ZIP drives. The addition of a digital projector to this PC has significantly improved online classroom demonstrations.

Since the merger with the Department of Information and Computer Sciences, ICS facilities in the nearby POST Building are available to LIS students and faculty (Appendix 17). Because high-end PCs with mainstream application programs are available at ICS, LIS is able to concentrate its lab resources on specialized library automation, database design, and database publishing software. The new Phase III wing of Hamilton Library will also enhance technology facilities for students. Groundbreaking for Phase III began in Spring 1999. It will include more area for student research and fiber optic computer connections for use by students throughout the building.

Students receive e-mail accounts and space on UH servers for creating personal or course-related Web sites and can obtain ICS server accounts through the LIS server.

LIS students may also access the computer facilities of the University's Information Technology Services (ITS) in Keller Hall and the Computer Learning Instruction Center (CLIC) labs of the Sinclair Library, which are available to all students of the University (www2.hawaii.edu/its). ITS provides general purpose computing facilities; administrative information systems; voice, data, and video telecommunications networks and services; distance learning technology operations and support; public computing laboratories; and a variety of related services and support.

The University provides instructional technology and support services for faculty through the Center for Instructional Support (www.cis.hawaii.edu) and the Digital Media Center (www.dmc.hawaii.edu). These centers assist faculty in designing, preparing, and implementing learning experiences that utilize various digital and multimedia equipment and software. Services include instructional technology consultation, Web site development, graphics support, video digitizing and editing, and assistance with Web course development.

## 7.3.3 Study and Meeting Areas

Space and facilities for a wide range of activities are amply provided [Standards VI.2, VI.4]. The main study area consists of a common area between classrooms, labs, and offices. Furnished with tables, informal groupings of furniture, and carrels, it is conducive to independent study, small group discussions, team projects, meetings of student organizations, and informal conversations among students, faculty, and staff.

Display shelves present the latest professional newsletters. Bookshelves hold multiple volumes of LC and Dewey class schedules, subject headings, reference works, and other material used frequently for course work. An alcove between the classrooms contains study carrels stocked with reference material, in-press articles, and special journal issues for individual courses, as well as two terminals to access the UH Library system. Bulletin boards with news, job announcements, and photos of students and faculty are located in several places in and near the study area. Student lockers and mailboxes are also available.

## 7.3.4 Social Area

The dining lounge, an integral part of the Program's facility, is heavily used by LIS students, faculty, and staff, as well as ICS faculty and students using the LIS facility. The adjoining kitchen is stocked with snacks that can be purchased at cost and is maintained by student volunteers from Hui Dui, the LIS student organization. The lounge provides an additional study and meeting area for students, faculty, and staff and contributes significantly to the goal of providing a quality learning and research environment.

## 7.4 Distance Learning

The LIS Program is among the few academic units of the University which pioneered distance learning options for students on the Neighbor Islands through the Hawai'i Interactive Television System (HITS). These facilities and opportunities are a significant part of the Program's efforts to provide a quality learning environment. HITS offers state-of-the-art, two-way interactive A-V communication for four of its seven sites (three cannot transmit images; although they have full receiving capabilities, these send audio only to the HITS studio) [Standard VI.2]. Hamilton Library on the Manoa campus provides resources to distance learning students through interlibrary loan and document delivery through its SUMO FAX system with the Uncover database. Instructors select materials for reserve collections, which are sent to each site by the Outreach College. The Center for Instructional Support designs instructional aids for class presentations, arranges telephone conferences with guest speakers on the Mainland, and assists instructors with other media services. Two HITS courses are offered each semester. In 1995-1999, a total of 456 students were enrolled in HITS classes.

Expanding distance learning to new formats is an objective of Strategic Goal 2—to serve the needs of an increasingly diverse student population. One of the ICS departmental goals is to construct its own distance learning classrooms and to create a virtual LAN that will connect the POST classrooms and the LIS classrooms in Hamilton Library. Asynchronous LIS courses will be developed beginning in Spring 1999 by two faculty members. These courses will be taught in Spring 2000/Fall 2000. The University makes available web-based interactive course software (e.g., Maile, WebX, Web CT) and gives workshops on their use to faculty.

#### 7.5 Resources

A variety of print resources, particularly the special collections with an Asia-Pacific focus, as well as up-to-date information technology, and multimedia resources all provide strong support for LIS goals and activities. Instruction via different modalities, research, faculty consultancies, and community service activities are enabled through the diverse resources provided by the Program, Hamilton Library, and the University's information technology facilities [Standard VI.3].

#### 7.5.1 Print Resources

Print materials to support the LIS Program are provided by the University libraries. Professional books, journals, directories, and newsletters are integrated into the Hamilton Library main collection. The budget cuts suffered by the University in the past ten years have also affected University library collections, but the 1998-99 library budget was increased and the library will receive \$500,000 more for each of the next four years in the reallocation plan. LIS students make extensive use of the various Reference Collections in introductory and advanced reference courses. Faculty make direct requests for new materials to a librarian responsible for LIS collection development.

In addition to its general collection, Hamilton Library features notable special collections reflecting the University's Asian-Pacific focus. The Hawaiian Collection is the world's foremost collection of 19th and 20th century materials about the Hawaiian Islands. Its comprehensive holdings include more than 118,000 volumes (many unique to the collection), 10,000 microfilm reels, and approximately 2,000 current serials. All formats, languages, and levels of treatment are collected.

The Asia Collection is the most significant collection of Asian materials in the State of Hawai'i and in the Pacific. Coverage includes all countries in East, South, and Southeast Asia. Materials are received in 17 Asian languages, as well as English and other Western languages. Holdings include monographs, Asian government documents, and over 2,000 periodicals, as well as newspapers, microforms, pamphlets, and ephemera.

Internationally recognized for the excellence of its holdings, the Pacific Collection has materials relating to the island regions of Melanesia, Micronesia, and Polynesia. The collection contains over 86,000 volumes, 1,200 journals and periodicals, 33 newspapers, and over 10,000 microfilm reels.

These special collections are extensively used by LIS students in the courses on Hawaiian, Asian, and Pacific Island information resources, as well as other LIS courses.

The Juvenile collection, utilized by students pursuing careers in school libraries and children and young adult services was enhanced by a fund established by retired LIS professor Therese Bard. The fund began with \$3,000. To date, \$2,014 has been spent, 157 titles have been ordered and 137 have been received to date.

#### 7.5.2 Information Technology Resources

In addition to Hamilton Library's online and CD-ROM databases, students have access to leading edge software and databases (including developmental databases) through the efforts of the Program and faculty members to provide the latest information resources [Standard VI.4]. The Program obtains and distributes for use, in strict compliance with copyright regulations, library software packages such as Reference Manager, Bibliolink, DBTextWorks, and ISYS. Many CD-ROM databases are also available for controlled and limited off-campus use by students in some information technology classes. These include MEDLINE; Information Science Abstracts; Sociofile; Wilson Business Abstracts; ABI/Inform; Encarta, Grolier, and Compton's encyclopedias; and various directories, dictionaries, and atlases.

Students in Basic Online/CD-ROM Searching (LIS 663) have free, unlimited access to DIALOG. Students in Advanced Online/CD-ROM Searching (LIS 667) and The Information Industry (LIS 668) have access to one or more of the following services: Wilsonline, DATASTAR, LEXIS/NEXIS, Dow Jones, and Silver Platter's online Electronic Reference Library. Limited access to OVID is occasionally provided.

After a temporary loan for a summer course, UMI generously approved the Program's request to: (1) retain a workstation with two CD-ROM drives and a laser printer; (2) add disks to fill the gap in the text-image collection of Magazine Express; and (3) regularly upgrade Magazine Express. As the yearly subscription of Magazine Express is \$12,000, the database update arrangement alone was a significant contribution to the Program's resources. In 1998, UMI also made available the page image version of MEDLINE, which covers 110 core medical journals. Beyond the

MEDLINE records with abstracts which serve as a search tool, the full page image versions are available for displaying and printing.

Other database publishers and software producers have approved student use of production and beta-test versions of databases received by faculty for evaluation and review. Some restrictions on use notwithstanding, these arrangements make it possible to introduce students to such novel software as WebSPIRS, OVID, and KnowledgeFinder. Students are thus able to gain experience with premium databases months before their official release. These costly databases are an asset measured in the tens of thousands of dollars.

#### 7.5.3 Multimedia Resources

In addition to computer-based facilities, other multimedia resources are available at the Instructional Resources Center in Kuykendall Hall and the Wong A-V Center in Sinclair Library, both easily accessible from Hamilton Library. The Instructional Resources Center, a well-equipped multimedia classroom, was utilized for Digital Storytelling and Computer Game Design (LIS 694). The Wong Audio-Visual Center in Sinclair Library has films, videocassettes, videodisks, compact discs, audiocassettes, phonodiscs, filmstrips, and kits, among others. Special effort is being made to create a comprehensive collection of audiovisual materials on Hawai'i and the Pacific Islands. For instructional support, the Center for Instructional Support provides hard copy color printing of transparencies, slides, and other instructional media for faculty.

## 7.6 Toward the Future

To achieve the objectives of Strategic Goal 4—to provide a quality learning and research environment for students and faculty—LIS will continue its ongoing efforts: (1) to improve access to computer and other information technologies; and (2) to evaluate the current facility in terms of present and future needs.

The merger with ICS makes expanded and sophisticated facilities available to LIS students. One task will be to encourage students to take advantage of the expanded opportunities to increase their technological skills outside the LIS program. The Technical Services Lab is available to students for independent work during all hours when the library is open. However, the Microcomputer and Online/CD-ROM Labs are monitored by student volunteers and have limited hours of operation. Improvements are needed to allow students greater access to LIS computer labs.

To overcome the limits of University and State budgetary restraints, LIS faces the challenge of seeking new revenue sources to continuously upgrade its computer facilities and systems. LIS faculty will continue their efforts to provide students with leading edge library automation and reference applications crucial to the demands of an ever-changing job market.

As in the past, LIS is in the forefront of the University's activities to expand distance learning to new formats. ICS plans to construct its own distance learning class-rooms and to create a virtual LAN to connect the new classrooms, the HITS origination studios, and the LIS classrooms in Hamilton Library. LIS will design and offer asynchronous courses in gradually increasing numbers through the Internet, beginning in Spring 2000. This will require the development of new instructional materials and providing greatly expanded means of document delivery for these materials.