

STANDARD VI. PHYSICAL RESOURCES AND FACILITIES



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Introduction

The Graduate School of Information Sciences and Technologies (GSIST) is located on the third floor of the José M. Lázaro Library building of the Río Piedras Campus of the University of Puerto Rico. The Library houses the reference, journals and circulating collections of the Campus's Library System, in addition to several specialized collections, and the Caribbean and Latin American Studies Library. The School shares the third floor of the José M. Lázaro Library building with Library and Information Sciences Library (BCBI), part of the Campus's Library System.

The School's physical facilities include classrooms, individual offices for each faculty member, office space for administrative staff, facilities for the research center, the office of the student council, a faculty meeting room, computer laboratories, and storage rooms.

Standard VI.1: A program has access to physical resources and facilities that are sufficient to the accomplishment of its objectives.
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Summary of School's compliance with this standard

Through the GSIST Strategic Plans ([2008-2011](#) and [2012-2016](#)) the School has committed itself to continue to improve its physical resources and facilities.

The GSIST has been receiving annual funding from the Campus Student Technology fee fund since 2006, and these grants have kept the School's technological infrastructure up-to-date. In fact, the technological infrastructure of the School is one of the most advanced on campus thanks to both external funding obtained through the approval of federal grant proposals and the annual allocation received from the technology fee fund.

Because information technology is a fundamental aspect of the field, the establishment of computer laboratories, the provision of computers and appropriate hardware, software and

Internet access for all faculty and administrative staff, and for classroom use, has become a priority. These areas have been addressed with additional institutional or external funds.

As a result of a redistribution of space done in 2008, the following physical facilities were created:

1. Multimedia production classroom (GSIST 315)
2. Two computer laboratories (GSIST 309 and 317)
3. Storage space for equipment
4. Additional offices
5. A relocated Office of Student Affairs
6. Space for the Student Council

In 2014, we relocated the GSIST Research Center, The Observatory of Studies Related to Information [OERI: *Observatorio de Estudios Relacionados a la Información*], to a larger and centrally located room (Rm. 314).

The space currently allocated to the School is adequate for teaching and administrative tasks, especially now that we are implementing the strategic initiative to increase our online academic offer. See [Layout Diagram](#).

Nonetheless, the historical building in which the GSIST is located presents some challenges, particularly pertaining to leaks in the concrete roof and cleaning of air conditioning ducts. It is understood that funds have already been allotted in the budget of the Library System, which is responsible of the building, to fix the issues that are affecting some of our classrooms, computer labs, and offices.

Each professor—and administrative staff member—has an office with at least one computer linked to a local area network (in which wired and wireless access is provided). The lab provides computers and specialized software for students and class use. Students have free access to important full-text databases, which are provided by the Library System. See list of available [full-text databases](#).

GSIST's goals and objectives include developing multifaceted information professionals, who are knowledgeable about diverse information resources and formats. One of the main concerns of the School has been to provide an adequate physical environment, including technological and instructional resources that contribute to the education of this information professional. The School has been continuously successful in accomplishing this end.

In 2008, a recurrent fund was provided to the GSIST by the university administration for information resources, which contributed significantly to the enrichment of the Library collection. These funds were used by the School to enrich information resources in support of new course offerings and research, particularly in the process of updating the curriculum. While the GSIST lost recurring funding for library resources in the academic year of 2009 to 2010, the School continued recommending an adequate number of resources through the

Library System’s regular acquisitions’ budget. In fact, onsite and distance-learning students have complete remote access to online resources.

The comparative tables 1 and 2 that follow shows, first, the budget allocation for information resources supporting the curriculum; the second table presents the amount of titles of information resources acquired during the period of 2008-2014.

Table 6.1: Budget allocated for information resources by fiscal year

Resource	Fiscal Year 2008-09	Fiscal Year 2009-10	Fiscal Year 2010-11	Fiscal Year 2011-12	Fiscal Year 2012-13	Fiscal Year 2013-14
Printed Books	\$39,642.95	\$18,450.56	\$12,773.00	\$13,793.89	\$4,284.81	\$3,527.00
Continuation	\$13,777.39	\$2,247.53	\$6,781.05	\$15,186.69	\$1,669.49	\$1,083.69
Printed Subscriptions	\$93,621.31	\$114,491.51	\$100,759.62	\$100,000.00	\$44,087.32	\$29,194.38
Electronic Subscriptions	---	---	\$109.49	\$9,464.52	\$87,804.02	\$119,342.09
Totals	\$147,041.65	\$135,189.60	\$120,423.16	\$138,445.10	\$137,845.64	\$153,147.16

Table 6.2: Amount of information resources acquired by fiscal year

Resource Type	Fiscal Year 2008-09	Fiscal Year 2009-10	Fiscal Year 2010-11	Fiscal Year 2011-12	Fiscal Year 2012-13	Fiscal Year 2013-14
Printed Books	163	256	224	209	2	14
EBooks	---	---	---	---	31	84
Continuations	11	7	8	8	3	4
Printed Subscriptions	269	268	256	234	154	117
Electronic Subscriptions	---	---	2	5	20	55
Totals	443	531	490	456	210	274

Standard VI.2: Physical facilities should provide a functional learning environment for students and faculty; enhance the opportunities for research, teaching, service, consultation, and communication; and promote efficient and effective administration of the school’s program, regardless of the forms or locations of delivery.

Summary of the School’s compliance with this standard

The José M. Lázaro Library building is centrally located, and within walking distance of all faculties and schools, in the Río Piedras Campus. It houses the main library on campus, including several specialized collections and centralized administrative services for the [Rio Piedras Library System](#).

The Library System has a specialized library to serve the needs of the GSIST. The Library Science and Informatics Library (BCBI), located on the same floor next to the School, provides easy access to students and faculty. It is used as a learning laboratory by students and faculty in several courses. The Library staff provides specialized training to GSIST students and faculty. Since 2011 some core courses integrate the development of information competences in collaboration with the BCBI and other special libraries in the system.

The GSIST occupies 11,175 square feet, which are distributed as follows. See [Layout Diagram](#):

1. One (1) regular classroom (310)
2. One (1) High-Definition IP Videoconferencing classroom (313)
3. Telecommunications room
4. Classroom / Information Organization Lab (312)
5. Dedicated computer lab (317, available for student use 100% of the time)
6. Two classrooms equipped with computers (309 equipped with PCs and 315 with Apple computers capable of booting up with either Windows or Mac OS)
7. Student Affairs Office (303)
8. Student Council
9. Eight faculty offices (304-306, 320-324)
10. Assessment group office (318)
11. Faculty meeting room (311)
12. Observatory of Studies Related to Information (314)
13. IT/graphical design personnel Office
14. Two storage rooms
15. GSIST administrative offices (Director, Administrative Officer, two secretaries, small conference room, reception area)
16. Kitchenette
17. Restrooms
18. Large lobby
19. Elevators and stairs

All classrooms and administrative dependencies at the GSIST have adequate furnishings, although some should be renewed in the next three years. With the addition of a High-Definition IP Videoconferencing classroom in 2012, the GSIST has expanded its capabilities to bring guest lecturers on site and to participate in remote collaboration meetings and virtual congresses. This infrastructure will support the GSIST's effort to deliver its master's program 100% online and to expand its guest professors program.

The School's location at the Lázaro Library building offers several advantages:

1. Students have easy access to collections, particularly to the reference and journals collections, used in several courses, particularly the reference course.
2. Students can conveniently use other collections and library resources as part of their coursework and special projects.

3. The proximity of the School to the Library System has facilitated fieldwork experiences for students in the Library System.
4. Professors are able to easily access the resources of the Library System for research and for demonstration purposes.
5. Professional library staff can be visited at their worksite or invited to share their expertise in class.
6. Students can take advantage of specialized user training offered by the University Library System.

Achievements

1. Classrooms are equipped with appropriate furniture that can be arranged in different ways.
2. A large classroom (313) is available for large group activities, face-to-face and virtual (videoconferencing) meetings and other functions seating up to 50 people.
3. The School has been able to take advantage of its location in the José M. Lázaro Library building, using its resources and facilities for fieldwork assignments, observation, visits to different libraries, and invitations for librarians to share experiences in classes.
4. The School's close proximity to the Library and Information Sciences Library, with improved resources and facilities, has enriched the educational experience of students and provided faculty with important support for their teaching-learning and research.

Evidence

1. GSIST strategic planning ([2008-2011](#); [2012-2016](#))
2. [Layout Diagram for GSIST](#) illustrates the layout of the School's physical facilities

Challenges

- GSIST administrative staff, students and librarians are bound to the José M. Lázaro building schedule. During academic recesses the Lázaro Library schedule either opens during administrative hours or closes down completely. Arrangements have been made for faculty to have keys to the main entrance of the Lázaro Library building. However, alternatives could be pursued to allow for an independent entrance to the School.

Steps to be taken

- Continue to work with library colleagues to plan the most effective use of the space available in the BCBI, so that it meets the needs of students and faculty.
- Explore sources of support to continue to improve the environment of the BCBI, its use and usability.

Standard VI.3: Instructional and research facilities and services for meeting the needs of students and faculty include access to library and multimedia resources and services, computer and other information technologies, accommodations for independent study, and media production facilities.

Summary of School's compliance with this standard

The School has an Observatory of Studies Related to Information that aims to coordinate the research conducted by faculty members as identified through their different research lines, and the students' experiences linked to the required Seminar on Knowledge Application (Capstone).

The BCBI facilities provide an adequate environment for study and research available to faculty, students and staff. The BCBI has wired and wireless access to the Internet, and a library instruction classroom with thirteen (13) computers, a computer projector, and projection screen. Recent resource acquisitions are displayed in shelves designated for this purpose, so that patrons can browse and examine new resources available to them.

The BCBI has available four personal computers for general users and one workstation for handicapped patrons. One scanner and a photocopy machine are also available. Library staff offices are equipped with personal computers with wired and wireless TCP/IP connections.

The BCBI is utilizing its own web page <<http://bcbi.uprrp.edu/>> to provide information to its constituents on new resources available to them. The BCBI also uses email campaigns to notify users of new acquisitions.

The Library and Information Sciences Library (BCBI) contains the largest collection of resources devoted to library and information science in Puerto Rico and the Caribbean. It has over 31,377 book titles and 267 active printed journals. The GSIST also has a growing collection of full text databases and eBooks. The list can be found at the Library System [website](#) and in the [Ebrary section](#).

At the same time, new titles have been purchased to support the School's curriculum in the two new areas of emphasis: Library and Information Sciences and Knowledge Management. There are many new resources in print, DVD and electronic formats, aligned to both areas.

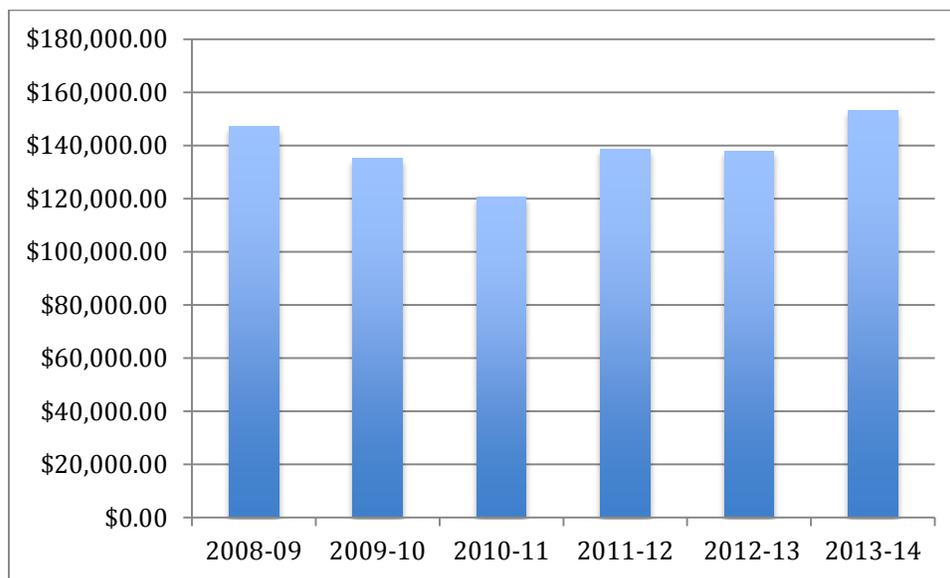
Library services include instruction in the use of the online catalog and online databases. BCBI staff offers these information competency activities for GSIST students as part of a collaborative project that has been offered since 2011 for the teaching of these skills in some core courses.

The BCBI has an ample study area with large tables, cubicles for individual study, computers, and a diverse collection of resources, both digital and print. Students and faculty have access to resources that have been carefully selected to support the GSIST curriculum and meet student and faculty information and research needs.

The BCBI, as part of the University Library System on the Río Piedras Campus, receives each fiscal year a budgetary assignment to update the collection. In the budget allocated by the Library System to the BCBI there is a significant investment in a variety of databases and digital journals.

As the next table shows, the University Library System has invested an average of \$54,180.04 a year in journal subscriptions alone for the BCBI and \$138,682.05 annual average during the last six years in all informational resources for the BCBI.

Graphic 6.1: Budget allocated for information resources by fiscal year



The GSIST coordinates closely with the BCBI Director for the acquisition of new resources in Spanish and English languages based on faculty recommendations. In recent years, the collection of bibliographic resources has been strengthened in the following areas:

- Resources on library and information science and technologies
- Resources on research methodology
- Resources on knowledge management

The BCBI has a Collection Development Policy supported by the GSIST faculty. The Director of the BCBI is part of the School's library advisory committee composed of two GSIST faculty members, two GSIST students, the head of the Library System's acquisitions department, and another BCBI staff member. This committee serves as a link between the School and the BCBI. It identifies and discusses BCBI needs, makes recommendations for projects and activities; supports the BCBI in collection development and administration matters. It stimulates faculty involvement in the recommendation of new resources to be acquired, thus assuring their relevance to the curriculum.

The BCBI maintains a wide collection of specialized journals in the library and information science field, both digital and in print. The periodicals collection is its main strength, with a total of 1,315 titles (active and passive). In addition, faculty, students and staff have access to a large number of databases and full-text articles via the Library System's website. These databases complement the information resources available to the School's students in the BCBI.

A special BCBI's website <<http://bcbi.uprrp.edu>> was designed by a GSIST's PEA student. Its purpose is to facilitate access to library resources and other pertinent information. Through this site, students, faculty and other patrons have access to the Library System's online catalog, databases relevant to librarianship and information science, lists of recent acquisitions, eBooks and eJournals, Power Point presentations, tutorials, news, relevant links, and information about the library. It is also the vehicle to provide virtual reference services, as well as inter-library loans, and acquisition recommendations. The website is a work in progress, this is a collaborative project between the BCBI and the GSIST.

The Campus Library System has an excellent library instruction program. It aims to teach students how to use effectively the services and resources available to them, and to facilitate integration of their acquired skills and knowledge in specific courses, thus supporting the learning process.

The BCBI includes the following collections:

Journals and Newsletters: This collection has a vast amount of journals and newsletters specialized in library science and information technologies. These periodicals offer current information and help keep patrons up to date. The collection includes core academic and scientific journals that support the GSIST's curriculum. Many of the journals in this collection are indexed in the databases available through the Library System's Website.

Reserve: This collection includes resources relevant to the GSIST curriculum that have been selected by the library staff or the GSIST's faculty members for specific courses. Reserved resources are for in-house use only, and are loaned for a two-hour period, thus assuring that these core resources are available to all library patrons. The collection also includes resources related to preservation and conservation, classics or books with historical value to the field, to improve their security, integrity, and permanence.

Reference: The purpose of this collection is to provide general information resources on library science and information technologies. It includes language dictionaries, specialized dictionaries and encyclopedias, manuals, print indexes and directories, among others.

Circulation: The collection includes books that students and faculty can check out and take home for a one-month period.

Audiovisual: This small collection includes diverse formats such as: CD-ROM and DVD.

Puerto Rican Librarianship: The purpose of this collection is to identify, preserve, and make available valuable information on the development of librarianship in Puerto Rico. This collection includes theses, newsletters, vertical file materials, papers, and documents.

Children’s and Youth Literature: This collection supports courses relating to the school library certificate program, including books for children and young adults in both English and Spanish. The collection also supports the children’s literature courses offered in the Education and Humanities Faculties of the University of Puerto Rico, Río Piedras Campus.

Through interlibrary loan services offered by the Library System, students and faculty members have access to bibliographical resources not available at the BCBI.

Information Technology Infrastructure available at the GSIST:

All classrooms have dedicated computer projectors and access to wireless and wired Internet connections. The wired network speed is Fast Ethernet (100mbps). Wireless networking (Wi-Fi, 802.11b) is available throughout the School and most of the campus.

The following table summarizes the information technology (IT) equipment available at the GSIST. This list does not include the laptops that are personal property of the faculty and used for their academic duties:

Table 6.3: GSIST IT Equipment Summary

Equipment Type	Qty.
Video projectors	8
Screen projectors	6
Mini audio amplifier	1
TV sets	4
Dell Optiplex PCs	19
Laserjet Printer	1
Codec Polycom	1
Video conference camera	1
Omnidirectional Microphone	1
Mixer amplifier	1
Apple Mac computers	16
Video magnifier	1
Monitor	1
Scanners	3
Binder	1
Digital presenter	1
Podium with sound	1
Digital camera	1
Video camera	1
Digital voice recorder	1
iPads	4
Tablet Laptops	5

This summary list demonstrates that the GSIST has a high-quality and extensive IT infrastructure.

The School’s IT infrastructure has improved considerably during the last six years. At the beginning, special grants were used to develop the School’s infrastructure. For example, the successful Title V grant administered by the School provided an increase in computer and technological infrastructure, and helped train faculty members on campus on the use of IT technology for teaching and multimedia production.

The biggest boost to the GSIST technological infrastructure came in 2006 when the Board of Trustees of the University approved a recurrent technology fee for all students in the UPR system. The Academic and Administrative Technology Division (DTAA, in Spanish) at the Río Piedras Campus was charged with the responsibility of assigning these resources, over one million dollars per academic year, on campus. DTAA created an advisory committee comprised of representatives from all campus colleges and professional schools. The protocol requires each academic unit to present a technological development plan and budgetary petition every year to request and justify their share of these funds. The GSIST has benefited from this arrangement, receiving \$133,049 during the past five years. On average, these annual grants help the GSIST update and expand its IT infrastructure, including computer and audiovisual hardware, software, networking infrastructure, and services.

Table 6.4: Annual Technology Grants

Academic Year	Annual Technology Grant
2009-2010	\$ 49,439
2011-2012	\$ 42,440
2012-2013	\$ 21,000
2013-2014	\$ 20,170
TOTAL	\$133,049

The budgetary petition required by the DTAA has substituted the traditional Technology Development Plan that was developed by the School. Input and requests from faculty, students, and staff are included in the budgetary petition prepared each year.

In addition to updating all computers and projectors for the classrooms, there are three (3) servers and one of them is a virtual server. Two servers are located at the GSIST. The virtual server is dedicated to: the GSIST webpage, webpage of ACURIL, BCBI, and Limesurvey, which is used for the students’ evaluation of the courses and professors. One of the servers that is located at the GSIST is dedicated to: Alfresco (an ECM platform), and File Maker (a database platform). The other server is a dedicated file server.

The availability of these servers allows the School to offer state-of-the-art instruction in the use of online collaboration technologies, and to expand the breadth and scope of its electronic presence on the Internet. Furthermore, these online tools are available to students and faculty to use in their research efforts, so that research topics and designs can become more sophisticated and technologically advanced.

All faculty members also have laser printers in their offices and laptop computers to use during teaching and research activities, faculty meetings, and other professional activities.

Administrative staff has dedicated work areas and offices. Each employee has a networked computer and access to networked peripherals. The Student Affairs Coordinator has an office to meet with students and file student records. The administrative offices have several peripherals installed, including laser and color printers, scanners, high-end photocopier, and fax machine.

The GSIST has its own state-of-the-art videoconferencing and multimedia meeting room (designed by a faculty member of the GSIST). The School uses this classroom for special events requiring projection for larger groups and for videoconferencing events.

Another software element of merit at the GSIST is the campus provisioning of Moodle Joule 2, a Software as a Service (SaaS) Learning Management System (LMS) offering of an advanced version of Moodle. This is the platform currently used by the School to offer online courses and web enhanced face-to-face courses. *Kaltura*, another SaaS platform, complements this LMS, providing video feedback and video repository and streaming capabilities.

A new addition in 2015 is the campus provisioning of Microsoft Office 365 (cloud) accounts for all faculty members and staff at the GSIST. These accounts allow each person to install Microsoft Office Pro software in all of their University and personal digital devices giving them expanded access to state of the art IT software anytime-anywhere, which encourages them to learn continuously and increase their IT knowledge. Soon, all students on campus will also have access to the basic Office 365 account allowing them access to the web version of Microsoft Office.

This new software platform is important for the GSIST because it will be used to develop the School's digital repository that will store all of our administrative and academic documentation and digital objects. Dr. Eliut Flores is developing this repository with the collaboration of the DTAA and GSIST graduate students.

Office 365 also integrates tightly with Moodle (<http://msopentech.com/blog/2015/01/19/moodle-office365/>), the distance education platform in which the GSIST is building its online masters program. This will serve well our faculty and student community in the learning process.

Practically all the computer hardware and software needs of students, faculty and staff members have been met by the School. Most requests for library resources have also been approved and purchased, others are in process.

Achievements

1. The library collection has strengthened and improved in the past years, focusing on new titles in Spanish in areas of importance to the curriculum of the School.
2. The budget for information resources increased during the past seven years. The collection has been updated and expanded to support new courses and faculty research interests.
3. During the past seven years GSIST faculty members have become more involved and active in the process of recommending resources for the BCBI. The School's joint faculty/library permanent committee has played an important role in stimulating this involvement. It has facilitated closer collaboration between the School and the BCBI.
4. The collaboration between the GSIST administration and the BCBI has increased in the past years, with students doing projects in the BCBI and faculty taking advantage of the library instruction workshops offered by the BCBI. Our students have been heavily involved in the development of the BCBI's web presence, including its blog and website.
5. Because of one professor involvement in the Virtual Health Library of Puerto Rico Project at the School, the Pan American Health Organization (PAHO) has provided the School the use of two licenses of the Blackboard Collaborate platform for videoconferencing. The website of the Virtual Health Library of Puerto Rico resides on one of the School's servers, allowing the School to project itself internationally.
6. The list of specialized LIS online full text databases acquired by the UPR Library System are available to the GSIST community, and can be found through the following link: <<http://biblioteca.uprrp.edu/BD-TEMAS/bibliotecologia.htm>>.
7. All faculty and administrative staff have assigned offices and networked desktop or laptop computers and peripherals.
8. Wireless Internet is available throughout the GSIST, the BCBI and much of the campus for student and faculty access.
9. The GSIST has a dedicated Computer Lab and classrooms equipped with Apple Mac OS and Microsoft Windows computers and several scanners.
10. All classrooms are equipped with Internet access, dedicated projectors and projection screens for faculty and student use.
11. The GSIST has a high-end videoconferencing equipped classroom that is used for interactive communication worldwide. Faculty members use computers in the classrooms to enrich the teaching-learning experience. The School has spare projectors available for use in special events and locations in additions to the fixed units in classrooms. Students in the School have access to assistive software in the Library System's division of services for the blind, physically challenged, and students with special needs. In addition, the School purchased some specialized equipment and resources of its own to assist students with visual impairments. The School's computer laboratory has Freedom Scientific's [MAGic](#) software. This software provides screen magnification with speech for visually impaired individuals. Users can view information on the computer screen while hearing it through a built-in speech synthesizer. Also, the School acquired New Technology's [Insight 1808](#) desktop video magnifier for visually impaired students. This equipment is connected to a 22-inch

- monitor and provides magnification up to 65X. It is located in the computer laboratory room 317.
12. The School provides one of the few academic programs on campus featuring 100% of its classrooms equipped with computer projectors, screens, wired and wireless access to the Internet. It is one of the few academic programs on campus featuring several servers dedicated to online publishing, research and student projects.
 13. In the Annual Budgetary Petition of the School, technological needs are identified and later on submitted to the DTAA (Division of Administrative and Academic Technologies). The DTAA is the unit that allocates the funds for technological infrastructure on Campus. Every year needs and plans for the expansion and replacement of technological resources and facilities are identified and submitted through this process. This is an integral part of the School's planning and evaluation process, in which faculty, IT staff and students are involved. The Technology committee composed of faculty with IT expertise is charged of evaluating the conditions of the infrastructure submit petitions and represent the School at the DTAA. In the past several years the GSIST has acquired \$112,065.22 to update and expand its technological infrastructure for teaching and learning.
 14. Our access to the Moodle Joule 2 and Kaltura platforms in Software as a Service (SaaS) modality ensures that the GSIST has available a state of the art Learning Management System (LMS)
 15. The newly attained access to Microsoft Office 365 by the GSIST community will provide everyone with a state of the art productivity platform that will also allow the creation of our repository and support our distance education initiative,

Evidence

1. Chart of Budget Assigned for Periodicals Collection, Monographic Resources and List of print Journals from 2008-2014
2. Detailed list of all the technological equipment and software in the GSIST
3. Monographic Resources Acquired in the BCBI 2008-2014
4. Memorandum from Academic Affairs Dean, Dr. Sonia Balet, about assigned funds for curriculum
5. Library instruction activities list
6. The BCBI's Collection Development Policy includes the goals, objectives, selection and weeding criteria used to develop the collection.
7. Annual GSIST Technology Petitions to the Academic Technology Division (on-site)

Standard VI.4: The staff and the services provided for the program by libraries, media centers, and information technology facilities, as well as other support facilities, are sufficient for the level of use required and specialized to the degree needed. These facilities are appropriately staffed, convenient, accessible to a person with disability, and available when needed, regardless of forms or locations of delivery of the school's program.

Summary of School's compliance with this Standard

The staff of the BCBI is qualified to provide services offered by this specialized library; however, during the last five years the BCBI has lost significant staff positions. Currently the full time staff consists of a professional librarian with a doctoral degree in the field, and one assistant librarian who is currently studying for the master's degree in the Humanities College. These librarians, along with 4 to 5 part time student assistants, cover evening and weekend hours. Due to budgetary constraints, the Library System has limited student assistant shifts to an aggregated 46.5 hours per week. Since 2013, the GSIST is supporting the BCBI in the midst of this shortage assigning a PEA student (Program of Academic Formative Experience of the Office of the Dean of Graduate Studies), to collaborate primarily with specialized tasks related to the library's website and research projects.

The library's physical facilities are adequate for physically challenged patrons. The entrance to the BCBI is less than 50 feet away from the elevator. The entrance door opens in both directions. The library is equipped with a height-adjustable table for persons with impediments. Additionally, the Library System has a special unit providing services for persons with physical impairments, located on the first floor of the Lázaro Library building. This unit has equipment to meet the needs of these patrons.

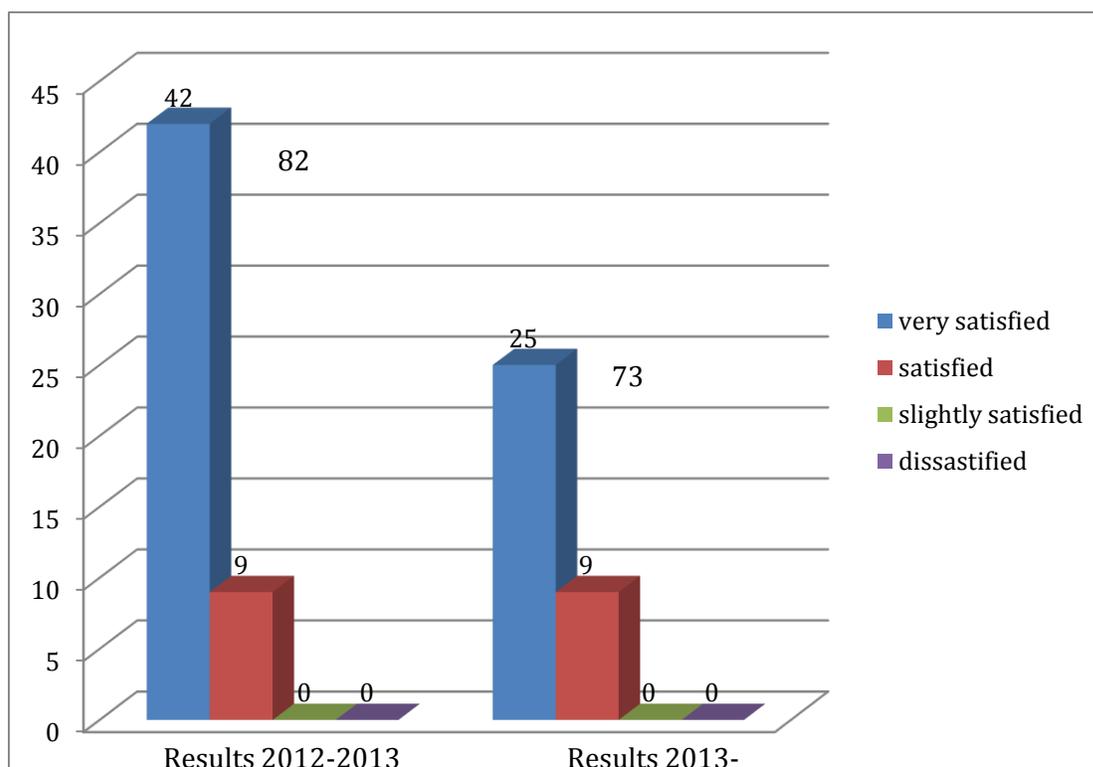
The BCBI service hours are convenient for the students' needs. During the last three years weekly service hours during the semester range between 40.5 and 46.5, including weekends.

In spite of the reduced staffing of the BCBI, a significant majority of the students are very satisfied with the information resources provided by the BCBI, as demonstrated by surveys conducted during the past two years with BCBI patrons (see Graph VI.2).

The Library System conducts several assessments of its libraries, including the BCBI. These surveys are [available](#). They show the assessment results during the most recent periods and they include findings related to student and faculty assessment of GSIST facilities, IT infrastructure and integration of technologies to course offerings.

Most recently, a student satisfaction survey conducted by the BCBI in 2012-2013 and 2013-2014 presents results indicating satisfaction with improvements in facilities, technological infrastructure, and library resources. The most relevant results of this survey in which 51 students in 2012 and 34 students in 2013 participated are presented below.

Graph 6.2: Student Satisfaction Survey Results with the Information Resources Offered by the BCBI 2012-2013 and 2013-2014



As shown in the previous graph, the students are highly satisfied with services provided by the BCBI.

In addition, students have access to the [Library System's Red Graduada](#) (Graduate Student Network Center located on the second floor of the José M. Lázaro Library building. This novel concept was built with a Title V grant under the Office of the Dean of Graduate Studies, and some GSIST faculty were contracted to lead its design and development during the past five years. It was just institutionalized and its administration was assigned to the Library System. The Graduate Student Network Center provides seating and Internet access for individual graduate students and for study groups; videoconferencing and lecture halls, and access to tablets or computers for those students who don't have their own equipment. This facility is open during weekdays, nights, and weekends.

GSIST computers have a variety of software, such as Office 2013, Adobe Acrobat Professional, Internet Explorer, Horizon, LibGuides, and Mandarin Oasis Automation Program for student and faculty use. It is important to note that the Mandarin Oasis Automation Program is supported by the company. Specialized research and production software has been installed in the computer labs and on the School servers for faculty and student use. Some of the most important software packages include:

1. Limesurvey: for online assessments

2. MindManager Pro 6: for consulting and project conceptualization
3. FileMaker Pro 13 & FileMaker Server 13 for database development
4. DataDesk 6: Statistical analysis
5. Joomla: collaborative portals
6. EndNote X: for annotation and citation
7. WordPress: for blog creation
8. CMSimple: for online publication

The GSIST also has a specialized a production lab. It is equipped with high-end computers and features specialized software and peripherals for multimedia production. As part of the annual IT petition to the Academic and Administrative Technology Division (DTAA), funds are assigned to upgrade and acquire additional software.

The GSIST has a full complement of IT personnel, including:

1. An IT specialist with a BA in IT Systems in charge of the network and overall IT infrastructure. Due to the high qualifications of our specialist and the reduced availability of personnel of these credentials on campus, the School is sharing this personnel with the DTAA.
2. A Lab Technician in charge of supporting students and faculty in the labs and with IT and AV resource use in the classroom. He has a BA in IT Systems and works from noon until 8:45 p.m.
3. A Graphic Artist in charge of producing multimedia and graphical resources at the GSIST. He has an Associate Degree in Graphic Arts and has command of several software packages for print and electronic publishing.

This team is supervised by the School's Director. The team supports face-to-face and distance learning initiatives at the GSIST. The School also receives IT support from the Academic Technology Division (DTAA) on Campus. This technology support staff is in charge of the network equipment and Internet connectivity. They also host two of the GSIST servers at the DTAA Data Center.

The Lab Technician in charge of the Computer Labs is available 37.5 hours weekly. He instructs students in the use of the computers and the programs and assists them in solving problems with computers and software.

The Computer Lab is open Monday through Thursday from 8:00 AM until 12:00 PM; from 12:30 PM until 8:45 PM. On Friday, the Lab opens at 8:00 AM and closes at 4:15 PM.

At the moment, to protect the technological infrastructure and physical resources at the School, additional security measures are being implemented. Magnetic door locks and digital card access control systems are being installed in classrooms and the Computer Lab.

In terms of the technological infrastructure at the School in the near future, it is expected that:

- The Library will provide more access to its online resources and repositories;
- The Moodle Joule 2 LMS platform, which is hosted externally, will be strengthened to support the distance education environment;
- A WizIQ platform has been acquired to complement the Moodle Joole 2 LMS
- Mobile devices to use with electronic/smart boards will be provided to support the learning experience.

Achievements

1. At the BCBI the acquisitions model has shifted from paper-based to emphasis on online resources (journals, videos, thesis) and eBooks.
2. Lexis/Nexis provides free access passwords to students taking the legal research courses.
3. PAHO (Pan American Health Organization) provides Blackboard Collaborate for use in videoconferencing, to support activities related to the Virtual Health Library in Puerto Rico project at the School.
4. The increased importance of technology in the curriculum requires the use of computers for word processing, database searching, database programming, presentations, productions of multimedia resources, web research, and cataloging practice during classes. In addition, students working on their class projects have increased the use of the School's Internet access and specialized tools.
5. GSIST faculty also encourages students to bring and use in class their own laptops and tablets. Nearly all GSIST students have at least one of these devices and they take advantage of them to access class resources in the Moodle platform and to perform searches and exercises and take notes in class.
6. The Library System provides unlimited access to a wide variety of full-text databases, including LIS and Knowledge Management specialized resources.
7. The School's IT infrastructure has expanded significantly both in terms of hardware and software, and in connectivity resources.
8. The School has also expanded its IT personnel resources and secured funding for their permanence at the GSIST.

Evidence

1. List of BCBI staff with academic degrees and experience
2. BCBI schedule identifies the hours in which this library is open to students, faculty and other users.
3. Computer Lab schedule for the spring 2008 term describes the hours in which this facility is accessible to students and faculty (on-site)

Challenges

- The BCBI has lost significant staff resources during the last few years. While most students can access remotely online resources, additional human resources are required to enhance the utilization of physical resources at the library.
- Information technology and software are constantly changing, requiring replacement and updating of equipment at least every three years. The periodic acquisition of new software needed by the curriculum is essential.
- Faculty and technical staff at the School require specialized training in new software and hardware technologies available in the market and acquired by the School, in order for them to effectively incorporate these resources in their teaching, advising and research efforts.

Steps to be taken

- Request budget to Campus authorities to recruit additional personnel for BCBI.
- Acquire software and equipment required to produce digital learning objects for courses being shifted for online delivery.
- Secure funding and time allowance for training of faculty and technical personnel on the new hardware and software resources added to the School every year.

Standard VI.5: The school's systematic planning and evaluation process includes review of the adequacy of access to physical resources and facilities for the delivery of a program. Within applicable institutional policies, faculty, staff, students, and others are involved in the evaluation process.

Summary of School's compliance with this standard

The School's Strategic Planning includes a section in which evaluation of existing physical resources and facilities is continuously monitored. Faculty is involved in the evaluation of the Strategic Plan at the semester retreat meetings; students are involved in the evaluation process through a questionnaire administered at mid semester and at the course evaluation at the end of the semester.

The Student Council is involved in the evaluation process of the School's facilities and in the Advisory Committee of the BCBI. Input is made at the faculty meetings in which representative of the Student Council are invited to participate. Students actively present their concerns regarding the availability and adequacy of information resources and technology. Their requests are taken into consideration in decisions made regarding physical resources and facilities.

Achievements

1. The School has managed to make available to its students the highest level of access to classroom technologies during the past 15 years, including dedicated projectors and screens for each classroom and wireless Internet access throughout the School.

Evidence

1. Inventory of equipment and software by room

Challenges

- To maintain a continued evaluation of the adequacy of the School's physical resources and library facilities, particularly in the light of changes resulting from the curriculum update process, and interests of the School in areas of emphasis.

Steps to be taken

- Maintain involvement of students, faculty, staff, and others in the process of systematically evaluating the School's physical resources and facilities. This can be both formally through the School's assessment procedures, as well as informally through asking for feedback about physical resources and facilities in committee meetings, student programs and activities.