

Academic Facilities and Educational Resources

Libraries

University Library

The Brown University Library supports the educational and research mission of the University by serving as the local repository for and principal gateway to current information and the scholarly record. The library contains more than 3.8 million volumes and 6 million items, including printed and electronic books, periodicals and e-journals, maps, microforms, videos, sound recordings, sheet music, manuscripts, electronic media, government documents, and resources in other formats. Currently the Brown University Library is one of the largest and most notable academic libraries in New England and holds several world-renowned special collections. The University library system includes five libraries on campus and the Library Collections Annex, a high-density storage facility located about four miles from campus. The John Carter Brown Library is an independent research library also located on the Brown campus.

The library web site <http://library.brown.edu/> is the principal gateway to the collections and services available for library users at Brown. Josiah, <http://josiah.brown.edu/>, the Brown University Library online catalog, provides access to information about holdings in all the libraries at Brown. Expenditures for acquisitions in 2008-9 totaled over \$8.5 million. The library has received over 65,000 journal titles and has licenses for more than 300 research databases. The library complements its local collection by providing Brown users with access to over 50 million additional volumes via direct borrowing agreements with consortial partners (a supplement to traditional interlibrary loan services). A growing portion of the library's resources today are digital, providing users with more immediately accessible information in a format that suits their research preferences.

John D. Rockefeller Jr. Library

The Rockefeller Library <http://library.brown.edu/about/rock/>, otherwise known as "the Rock," houses the collections in the social sciences and humanities. On the first floor near the entrance, users will find the circulation desk where they can check out books for borrowing, seek reference assistance, or inquire about library services and policies. The entire building allows for wireless connections to the Brown network and the Internet. Computer clusters are available on Levels 1 and 2; a separate graduate student cluster is available on Level 2. The Rock provides a variety of spaces to suit different work styles, including open, comfortable seating as well as group study rooms in the Laura & David Finn Reading Room on Level 1, an "absolute quiet" study room on Level A, and individual study carrels located throughout the building. The Alfred and Laura Hecker Center for Library Technology, a state-of-the-art classroom for library instruction, is located on Level 1. Josiah, the library's online catalog, and other search tools and online resources can be searched from workstations located throughout all the libraries as well as from any device with access to the Internet. Books and bound periodicals are shelved together in open stacks arranged by Library of Congress call numbers. The library's main collection of newspapers is housed in the Periodicals Reading Room on the first floor. East Asian material, located on level 3, includes the Gardner Collection which consists of mostly historical Chinese material from the Ch'ing Dynasty (1644–1912). A small café in the lobby of the Rock provides a convenient place for a study break or to meet informally with friends or colleagues.

Sciences Library

The Sciences Library <http://library.brown.edu/about/scili/>, a 14-story high-rise building, contains the library's resources in the physical, biological, and medical sciences. Library Richard A. Friedman Study Center <http://library.brown.edu/about/friedman.php>, a modern, comfortable, and technologically equipped 24-hour study environment for Brown students in the heart of campus. The Friedman Study Center is open 24/5 and

features individual and group study areas, computer clusters, and common areas designed to meet students' needs for academic and gathering spaces. A café is located in the lobby of the Sciences Library. Additional computer clusters and study spaces are available on the Mezzanine level. Books and bound periodicals are shelved together by Library of Congress call numbers on the upper floors of the Sciences Library. There is an extensive map collection including U.S. Geological Survey depository maps on Level 8. The Science Center is located on Level 3 and offers work, study, and lecture spaces as well as tutoring and advising resources for math and science students. The Media Services department (part of Computing and Information Services) is located on Level 14, and provides assistance to the Brown community in the use of instructional technology equipment for classrooms and events.

John Hay Library

The John Hay Library <http://library.brown.edu/about/hay/> is the location for most of the University's rare books, manuscripts, special collections and archives. Among the notable materials in "the Hay" are the renowned Harris Collection of American Poetry and Plays, the Sheet Music Collection, the McLellan Lincoln Collection, the Anne S. K. Brown Military Collection, the Lownes History of Science Collection, the papers and works of H. P. Lovecraft, the Smith Collection of books on Magic, and the Annmary Brown Collection of incunabula. Other notable collections include the Hall-Hoag Collection of Extremist and Dissenting Literature, the Katzoff Collection of Gay and Lesbian Literature, the Poulin and Ciaraldi Collections of Comic Books and Illustrated Novels, the Miller Collection of Wit Collection of Modern American Poetry, and the Leab Collection on George Orwell. A detailed listing of special collections in the John Hay Library is available at <http://library.brown.edu/collatoz/>. Exhibitions of materials from the collections are mounted year-round. The University archives <http://library.brown.edu/collections/archives/>, dating from 1763, contain copies of the official records and publications of the University and the papers of many of its departments, officers, and affiliated groups. All materials are paged at the reader services desk for use in the reading room, which is also available for general study. Materials in the library do not circulate outside the building. The Walter L.S. Bopp Seminar Room, a state-of-the-art instruction and meeting space, is located on the third floor of the John Hay Library.

Virginia Baldwin Orwig Music Library

The Orwig Music Library <http://library.brown.edu/about/orwig/> houses the general collections of music materials, including books, periodicals, scores, and sound recordings. The study space is particularly convenient for students living in the East campus area. A listening facility for sound recordings, audio cassettes, and compact discs is also available; the recordings do not circulate. Digital audio files may be placed on reserve using OCRA (Online Course Reserves Access), a system that streams required listening assignments to students registered in Brown University classes; see <http://library.brown.edu/reserves/> for more information.

Art Slide Library

Located on the fourth floor of the List Art Center for the convenience of its most frequent users, the Art Slide Library <http://library.brown.edu/about/asl/> acquires digital images, slides, photographs, printed reproductions, microfiche, reference books, and electronic resources to support the general needs of the Brown University community for visual materials pertaining to art and art-related subjects, including architecture and archaeology. The resources include a growing collection of digital images as well as approximately 300,000 slides, 39,000 photographs, and 10,000 microfiche. In collaboration with the Center for Digital Scholarship, the ASL provides scanning services for faculty who need digital images of visual culture for teaching. A local image database is available via Luna Insight software. Anyone affiliated with the University is welcome to use items from the collections for teaching on campus, student presentations, research, or related educational activities. The staff of the Art Slide Library is available to answer humanities reference questions and to provide training in the use of the digital image collections.

John Carter Brown Library

The John Carter Brown Library http://www.brown.edu/Facilities/John_Carter_Brown_Library/ is a separately administered and

independently funded library, operating under its own policies and procedures. In the field of Americana, it is one of the outstanding libraries of the world. Among the some 50,000 volumes printed before 1825 are numerous books and pamphlets describing the growth of the European colonies in the New World and the impact of the discovery and exploration of the New World upon Europe. The library also has an extensive collection of maps dating from 1477 to the mid-19th century. While the resources of the John Carter Brown Library are available to anyone who needs to use them, the library is designed to serve those engaged in advanced scholarly research. Use of the reading room is restricted to those making use of the collections. The John Carter Brown is a closed stack library, and all materials must be paged by the staff. The library regularly mounts exhibitions open to the general public.

Library Services

Access to Library Buildings

The primary goal of the libraries at Brown University is to support the instructional and research needs of the Brown academic community. Currently, the libraries are open and provide services over 110 hours per week during the academic year with additional hours available during reading and exam periods. In addition, the Friedman Study Center in the Sciences Library is open overnight (5 nights per week) for studying. A Brown University identification card or other proof of Brown affiliation is necessary to gain access to the Rockefeller and Sciences libraries. Following is a brief listing and description of some of the library services. More complete information and assistance are available at <http://library.brown.edu/> or from staff at any of the service points throughout the libraries.

Locating and Using Library Materials

Josiah, the Brown University Library online catalog <http://josiah.brown.edu/>, and the library's other search tools and online resources, can be searched from workstations located throughout all library buildings or from any device with access to the Internet. The book stacks in Rockefeller, Sciences, and Orwig libraries are open and allow users direct access to the collections for browsing purposes. Materials shelved off-campus at the Library Collections Annex can be requested for delivery to campus (usually within 24 hours). Details about loan periods are available on the library's web page. Materials at the John Hay Library must be retrieved by staff from the closed stacks and used within the library; please inquire at the Hay Reader Services Desk for more information.

Library staff provide a variety of general and specialized services to assist students, faculty, and staff members of the Brown community. Library staff promote academic success by advising students and faculty on how to use a wide range of information resources available through the library. Subject specialists are available to consult on research topics, instruct in the use of library resources and tools, evaluate sources of information, and help users navigate the research process.

An increasing portion of the library's collections is available digitally through licensed or networked resources. The library currently has licenses to over 300 research databases and approximately 52,000 full-text online journals. Detailed lists of electronic titles are available through Josiah and on the library web site. Instructions for accessing licensed content from off-campus are available at <http://library.brown.edu/offcampus/>.

Access to Other Libraries

Beyond the immediate collections available on campus, Brown students and faculty have direct access to more than 50 million volumes through special borrowing agreements with partner libraries. Titles from these libraries — including Columbia, Cornell, Dartmouth, University of Pennsylvania, Princeton, Yale, and the academic libraries in Rhode Island — can be searched and requested using easyBorrow, the library's web service for expedited borrowing and delivery of books to the Brown campus. In addition, Brown has reciprocal agreements for on-site access to a number of libraries in the region and throughout the nation. More information about these and other options for obtaining materials from

other libraries is available from the library's web site or from staff at any of the service points throughout the libraries.

Center for Digital Scholarship

The Center for Digital Scholarship (CDS) coordinates the library's efforts in building its digital collections. CDS focuses on producing digital materials for use in scholarship and teaching efforts at Brown; digitizing "signature collections" from Brown's world renowned special collections; developing databases, programs, and applications to enhance access to and use of these materials; and providing consultative services for library and academic units undertaking digital projects. A growing collection of digitized materials, faculty projects, databases, search tools, and finding guides is available at the library's web site: <http://library.brown.edu/cds> (<http://library.brown.edu/cds/>).

Services for Users with Disabilities

The library works closely with the University's Disability Support Services to accommodate Brown students, staff, and faculty with special needs. The main entrances to the Rockefeller and Sciences libraries are wheelchair accessible. The John Hay Library is also accessible via the entrance at the rear of the building, where a phone is available to gain admittance by calling the staff at the Reader Services Desk. The service desks in the Rockefeller, Sciences, and Hay libraries can arrange to have materials retrieved from the stacks and provide other special services as required for users with physical disabilities. The Rockefeller Library currently has a computer workstation with magnification and reading software for the vision impaired.

Museums

Gardner House

Gardner House, located at 106 George Street, is the University guest house and a historic house museum. It was built in 1806 for Joseph Hale, a mason, and for many years was a single family residence. Later it was partitioned into a multifamily dwelling, and, during the early 1930s, the owner offered room and board to Brown students.

In 1932 the house was acquired by Brown University. Shortly thereafter, George Warren Gardner, M.D., a member of the Brown Class of 1894, and his wife Jessie Barker Gardner, offered to donate to the University their home on Orchard Avenue and all their antiques. In return, arrangements were made to restore Gardner House and for the Gardners to occupy it for as long as they lived. In accordance with their agreement with the University, upon their deaths, the house became available to Brown as a historic house museum and a guest house. It has been maintained for these purposes since 1948.

In 1979, renovated, Gardner House was reopened as the President's guest house for distinguished guests of Brown University.

Haffenreffer Museum of Anthropology

The Haffenreffer Museum of Anthropology curates over 100,000 archaeological and ethnographic objects from around the world. The Museum is also the federally designated repository for significant archaic collections from Alaska. The Museum's Collections and Research Center and offices are located at the museum's original site on the 375-acre Mount Hope Grant in Bristol, Rhode Island, eighteen miles from Providence—Museum and land having been a gift in 1955 from the heirs of Rudolf Haffenreffer. In 2005, the Museum opened a 2,000 SF gallery on campus, in Manning Hall on the main green. Museum education outreach programs are run from Manning Hall and Giddings House on campus. Since 1955, the Museum has close intellectual and historical ties with the Department of Anthropology, being led by a director with a faculty appointment in the department, offering courses and a master's degree in anthropology-museum studies, guiding undergraduate and graduate students in co-curation of exhibitions. The gallery in Manning Hall is open Tuesday-Sunday, 10-4. For more information see <http://brown.edu/Facilities/Haffenreffer/index.html> (<http://brown.edu/Facilities/Haffenreffer/>).

Laboratories

The University provides extensive, modern laboratory facilities designed for undergraduate instruction, graduate instruction, and research. The major laboratory facilities include the following.

Physical Sciences Laboratories

Barus and Holley Building: a seven story building housing both the School of Engineering and the Department of Physics. In addition to classrooms and faculty offices, the building contains over fifty laboratory rooms. These rooms are equipped with the latest scientific apparatus permitting research in fields such as: bio- and nano-mechanics, picosecond ultrasonics, low-temperature physics and superconductivity, surface physics, colloidal physics, liquid crystal physics, solid-state physics, magnetic properties of solids, nonlinear optics, high-energy and elementary particle physics, laser systems, microwaves, servo-mechanisms, instrumentation, solid state electronics, microelectronics, creep and fatigue of materials, materials preparation, transmission and scanning electron microscopy and electron microprobe analysis, scanning tunneling and atomic force microscopy, x-ray diffraction, soil mechanics, dislocation dynamics, dynamic inelasticity, binocular vision, coal gasification, speech recognition; robotics, image processing and computer systems, and the CVD (Chemical Vapor Deposition).

Chemical Laboratories: The instructional laboratories and classrooms are housed in MacMillan Hall. The research programs in inorganic, organic, physical, and biochemistry as well as the offices of the Department of Chemistry are housed in the adjacent Geology-Chemistry building. Facilities include a machine shop, and an electronics shop. The laboratories are equipped with modern instruments for research in chemistry, including NMR, ESR, IR, Raman, UV and mass-spectrometers, X-ray and electron diffraction systems, several state-of-the-art laser facilities, and equipment for ESCA, Auger and photoacoustic spectroscopy. The laboratories contain an extensive array of computational and graphics workstations, linked via networks to departmental minicomputers, to the university's mainframe, and to remote databases and supercomputing facilities.

Geo-Chem Building, MacMillan Hall, and Lincoln Field Building: These buildings house the Department of Geological Sciences. In addition to classrooms and faculty and graduate student offices, the buildings contain laboratory space and research equipment and facilities including an extensive computing network of workstations and minicomputers which are linked via Ethernet to a campus parallel computing facility and to national networks and The MacMillan Undergraduate Science Center houses undergraduate geoscience and environmental science laboratories, office and laboratory space for concentrators, as well as a computer center, well-equipped lecture halls, and a lounge. *Planetary Geoscience* facilities include a sophisticated image processing and analysis facility, the Brown/NASA Reflectance Experiment Laboratory (RELAB), and an extensive collection of photographs, images, and maps from all planetary exploration missions. Brown/NASA Regional Planetary Data Center makes available to researchers data from the U.S. Space Program. *Experimental and analytical labs* include: pollen, micropaleontological, and alkenone paleotemperature laboratories, Elzone particle counter, elemental analyzer and the Environmental Stable Isotopes Laboratory for analysis of d15N, d18O, dD and d13C in carbonates and organic samples, several multicollector gas and solid-source mass spectrometers, hydrothermal, gas, and piston cylinder apparatus, electron microprobe/scanning microscope, X-ray fluorescence analysis facility (XRF), an X-ray diffraction unit, a computer controlled rotary shear gas apparatus for frictional sliding experiments, modified Griggs-type solid medium deformation apparatus (3) for high and low temperature and pressures as well as various strain rates. A jointly owned ion microprobe and a campus Electron Microscope Facility for SEM and TEM studies are available, as well as Raman spectrometers in other departments. We currently have a radiogenic isotope laboratory and a Thermal Ionization Mass Spectrometer for the analysis of (Rb-Sr, Sm-Nd, U-Pb) in whole rocks and minerals. We are building a new state-of-the-art clean lab for isotopes analysis. *Field equipment* includes estuarine water sampling equipment (with boats, moorings, CDTs and fluorometers), Leica laser surveying equipment, two ground penetrating radar systems

(GPR), portable field spectrometers, gravimeter, field seismic equipment, and equipment for geomagnetic and magnetotelluric measurements.

Life Sciences Laboratories

Genomics Core Facility: The facility provides state-of-the-art genomics and proteomics equipment to researchers at Brown University and to the entire Rhode Island research community, as well as assistance with experimental design, trouble shooting, and data analysis. For more information regarding the services and equipment that will be found at the facility, please go to: <https://www.brown.edu/research/facilities/genomics/>.

Leduc Bioimaging Facility: The facility, open to all investigators, provides equipment and training dedicated to high-resolution imaging in the life sciences. It includes a Transmission Electron Microscope, a Scanning Electron Microscope, two Fluorescence Microscopes, a Fluorescence Stereomicroscope, three Confocal Laser Scanning Microscopes, and software for image analysis. The facility also maintains equipment for sample preparation, including a critical point dryer, sputter coater, and microtomes for ultrathin sectioning. The facility currently offers training and equipment at two locations: in Sidney Frank Hall for Life Sciences and the Laboratories for Molecular Medicine. The facility maintains nine main imaging systems and serves more than 200 users.

Molecular Pathology Core Research Laboratory: The laboratory provides instrumentation and supports personnel in research efforts for both the COBRE mentors and their junior associates, as well as specialty immunohistochemical services for the Department of Pathology. The 1250 square foot facility is equipped with an Arcturus AutoPix automated laser capture microdissection instrument, Olympus BX41 with CoolSnap Camera from Media Cybernetics and Image Pro-Plus Software, Stratagene MX4000 quantitative Real Time PCR system, BioRad iCycler, Agilent BioAnalyser, Ventana Discovery automated immunohistochemistry processor, microtome and cryostat, Beecher tissue arrayer and 40 cubic feet of 80 degrees Celsius freezer space for the tumor bank.

MRI Research Facility (MRF): The facility occupies a 3000 sq. ft. research suite located in the Sidney Frank Hall for Life Sciences on Brown's main campus. The centerpiece of the Facility is a state-of-the-art research dedicated Siemens 3 Tesla TIM Trio. The scanner is equipped with 32 receiver channels for significant gains in signal-to-noise ratio and acquisition speed. The MRI Research Facility provides infrastructure and support to facilitate research and educational activities using magnetic resonance imaging technology. The MRF is affiliated with the University's Institute for Brain Science and is a resource available both to Brown researchers and those at Brown affiliated hospitals. Ongoing research includes studies of brain structure and function in normal and clinical populations as well as studies of other body systems, non-invasive animal imaging and materials science.

NSF/EPSCoR Proteomics Facility: The facility shall have a broadly-inclusive philosophy to ensure rapid and equal access to the facility's services for the entire Rhode Island research community. In addition to the acquisition of instrumentation, the NSF/EPSCoR Proteomics Core Facility will undertake the training of research in emerging proteomic techniques, a component that is essential to maintaining a productive and professional level of service. The NSF/EPSCoR Proteomics Core Facility shall have a strong commitment to be at the leading edge of current and developing technologies and provides consultation on their application.

Outcomes and Biostatistics Core: The core participates in a wide variety of activities, including consultation on design and analysis for small pilot projects, development of study design for major projects (e.g. R01 proposals), assistance and advice on database construction and management, collaboration on large projects where outcomes measurement and statistical analysis considerations are nontrivial, development of new statistical methodology, and mentorship for junior investigators and fellows. To request services from the biostatistics core, please contact one of the core co-directors. you should describe your project in detail, explain your statistical needs, and provide pertinent deadlines. A member of the core will respond to set up an intake meeting.

Plant Environment Center: The Center, consisting of research greenhouses, a classroom laboratory and Conservatory, is located at 85 Waterman Street (formerly Hunter Lab). We provide an educational research facility which is primarily available to those in the Department

of Ecology and Evolutionary Biology, a part of the Division of Biology and Medicine. The facility is comprised of 3 research greenhouses approximately 5,000 sq.ft. used for research experiments and a teaching plant collection for biological science classes. There is also a Conservatory of approximately 2000 sq.ft. The collection includes many plant families, including a diverse collection of Cycads, Orchids, Aroids, and many plants from the Amazon region. Many of these plants have medicinal and ceremonial uses and are part of our Ethnobotanical collection.

In addition to the greenhouse facilities, we have five E7/2 Conviron Plant Growth Chamber units, as well as one eighty square foot walk-in chamber. These units are used by graduate students and professors with very specific cultural requirements for optimal plant growth.

For additional information about the Center please visit: <https://www.brown.edu/academics/ecology-and-evolutionary-biology/about-us/facilities/plant-environmental-center> (<https://www.brown.edu/academics/ecology-and-evolutionary-biology/about-us/facilities/plant-environmental-center/>)

For information about 85 Waterman Street (formerly Hunter Lab) please visit: <https://www.brown.edu/academics/institute-environment-society/about-institute/facilities> (<https://www.brown.edu/academics/institute-environment-society/about-institute/facilities/>)

Creative Arts

Perry and Marty Granoff Center for the Creative Arts

The Granoff Center serves as a catalyst for collaboration between and among the arts, sciences, and humanities. Within the Center, creative thinkers from across disciplines can come together to work collaboratively, exchange ideas, and create new art forms.

The center serves as the home for the Brown Arts Initiative, which supports the goals of individual creative arts departments and programs, while facilitating a common vision for the arts that transcends discipline and creates unity. The Initiative serves as a catalyst for innovative collaboration across disciplines and provides a regular forum for communication among all members of the arts community. The Brown Arts Initiative is for the benefit of students, faculty, staff, alumni, and friends. Through its public activities, it seeks to maximize the visibility of the arts on campus, throughout the local community, and on a national and international level.

For more information on the Granoff Center and/or the Brown Arts Initiative, please visit: <http://brown.edu/academics/creative-arts-council/>.

Leeds Theatre

The flexible theatre space in **Leeds Theatre** allows seating on three sides or in the round. Each year the department of Theatre Arts and Performance Studies produces several productions in Leeds Theatre including various productions as part of the Sock and Buskin mainstage season, the annual Writing is Live Festival, Brown/Trinity Playwrights Repertory Theatre, and the annual student-directed Senior Slot production. It has a seating capacity of 140.

Ashamu Dance Studio

Ashamu Dance Studio serves as the home for the Dance Program at Brown. Measuring approximately 30x80 feet and equipped with mirrors and a sprung floor, it is well-equipped for performances with seats, lights, sound system, and curtains. It has a seating capacity of 100.

Stuart Theatre

Stuart Theatre has a seating capacity of 250. The department of Theatre Arts and Performance Studies produces several productions in Stuart each year including the annual dance concert, and various productions as part of the Sock and Buskin mainstage season.

Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Helvetica was used instead of Arial.

The editor may contact Leepfrog for a draft with the correct fonts in place.