# BROOKLYN COLLEGE
# INFORMATION TECHNOLOGY ASSESSMENT PLAN
# 2007

**ADOPTED BY**

## BROOKLYN COLLEGE TEACHING, LEARNING, TECHNOLOGY ROUNDTABLE

## MARCH 27, 2007


## TLTR IT PLAN SUBCOMMITTEE:

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**STRATEGIC GOALS FOR INFORMATION TECHNOLOGY AT BROOKLYN COLLEGE:**

The **Brooklyn College Strategic Plan 2005-2010** celebrates the College's accomplishments and investments in Information Technology and acknowledges our position as a CUNY leader in IT investments and services. It sets a clear technology agenda that has as its priority campus secure access to content and services for instruction, information delivery, online services, and a comprehensive public-access computing infrastructure, and incorporates participation in building and implementing CUNY-wide systems and applications. It clearly articulates the role of integrated technology services aligned with budgetary resources as a solid foundation for advancing the strategic plan.

In the Strategic Plan, two major IT goals are promulgated:

1. Develop and apply technology initiatives that respond to the College's needs and aspirations:

    - Charge the Teaching and Learning Technology Roundtable (TLTR) to devise and monitor a College-wide technology plan, with measurable outcomes, that sets campus priorities and establishes comprehensive, shared practices.

    - Ensure that technology-related programs and services are coordinated across campus and that realistic timelines are established for their implementation.

    - Invest in infrastructure and tools "smart" lecture halls and flexible classrooms, portable video presentation carts, portable laptop labs required by faculty who use technology in instruction.

    - Complete the migration from an all-in-one College Web site to (a) an external Web page with content designed to introduce the College and its programs to the wider world and (b) an information-and-services portal (BC WebCentral) attentive to the everyday needs of the College community.

2. Promote the further development of instructional technology programs and the infrastructure that supports it:

    - Encourage and support faculty in evaluating, adopting, and implementing new technologies that enhance learning.

    - Expand electronic library services to the extent possible: enlarge online interactive reference service; strengthen the collection of digital resources; implement electronic course reserves; provide off-campus access, robust and easy to use, to electronic resources.

    - Expand information technology operations staffing to assure better administrative and technical support to the College's evening and weekend operations and to cope with the demands presented by online learning.

    - Adopt and follow a schedule for replacing computers for faculty and staff offices, and update hardware and networks.

    - Upgrade Internet connectivity to meet accelerating demand for Internet bandwidth; upgrade and expand public-access, instructional, office, and research computer systems; expand the network of secure wireless networking and classroom connectivity.

    - Maintain an advisory committee that reviews and offers advice on ways to assure the security of the campus computer network without compromising the academic mission.

**LEADING TECHNOLOGY ORGANIZATIONS AT BROOKLYN COLLEGE**:

In articulating the College's strategic IT goals, the Strategic Plan identifies four major organizations that either determine IT policy or deliver critical IT services:

1. The **Teaching and Learning Technology Roundtable (TLTR)** serves as a clearinghouse for information and a vehicle for communication among the various groups concerned with technology at the college. It is the body where suggested policy statements are brought for discussion and action. The TLTR discusses policy and process concerning the expenditure of technology fees. TLTR was created partly to address the confusion that existed about the roles and powers of various committees throughout the college that concerned themselves with one or another aspect of technology. TLTR is an umbrella organization that brings together all groups and individual who are stakeholders in technology at the college. It is a common forum for all these voices and its policies arise from consensus.

2. **Center for Teaching (CFT)** was established in 1996. Its mission is to provide the faculty with opportunities and resources for improving their teaching through research, training and professional development. In the arena of technology, the Center responds to the needs of the faculty for professional development by organizing, staffing and delivering workshops and seminars in: technology mediated instruction; development of innovative curricula that integrate elements of technology into teaching; development of partially and fully online courses and degree programs with substantial technological components; researching, applying and disseminating best practices in instructional methods and techniques; assessment of effectiveness of technology-based instruction. It cooperates with Information Technology Services (ITS) in ensuring the creation of teaching facilities (smart classrooms, teaching laboratories) that respond to the needs of faculty and students; developing a comprehensive array of workshop offerings for faculty training; sharing information and initiatives that focus on the practical use of technology as a tool for effective teaching.

3. **Library/Academic Information Technologies** (**Library/AIT)** provide leadership, training, and support for technology-assisted teaching, learning, and research. Responsibilities include:

    - **Faculty Training and Development**: provide workshops in both the technological and pedagogical aspects of teaching and learning with technology, as well as one-to-one training
    - **Course and Web Site Development**: assist faculty in designing/building course sites, as well as online degree, certificate, and program sequences; build course sites for College departments and units
    - **Facilities for Teaching and Learning with Technology**: staff, support, and manage the Faculty Training and Development Laboratory; two multimedia classrooms; six group viewing rooms; three large student computing facilities; and a high-technology auditorium
    - **Blackboard Course Management System**: administer the College's virtual instance of the University's Enterprise license; train and support faculty and students in their use of this e-learning platform
    - **Student Technology Training**: offer student workshops in a range of technology applications
    - **Electronic Information and Research Tools**: license e-resources; provide associated access, instruction, and assistance in their use and interpretation

4. **Information Technology Services (ITS)** is responsible for all technology support on campus with the exception of faculty development. Major support functions addressed by ITS include:

    - **Help Desk/Desktop Technical Support** which provides on-site and telephone support to all campus users.
    - **Network Services** which maintains the college's network infrastructure, including the extensive web systems, e-mail systems, SQL server database repositories, building file servers, and backup systems.
    - **Student Lab Support** which operates the two largest walk-in lab facilities on campus and maintains most of the department based lab/classroom facilities on campus.
    - **Management Information Systems** which maintains the college's strategic information systems, such as the SIMS student information system, the telephone registration system, the imaging systems, the scheduling systems, and many others.
    - **Telecommunications Services** which manages the college's voice telephone systems and voice mail systems.

**IT ASSESSMENT PLAN AND SCHEDULE:**

The College aims to build a comprehensive IT assessment strategy over the next five years to ensure that the IT efforts and activities planned, managed and sponsored by these different organizational entities are coordinated, that resources are allocated based on programmatic effectiveness, and that the result is an effective, cohesive IT program that serves the needs of and is transparent to the entire college community. The process will be coordinated by the Office of Academic Affairs, which oversees the Student Technology Fee Plan and allocates funding for technology-based learner-centered programs and activities. Faculty training and development activities that address pedagogical applications of technology sponsored by all of the IT units will be coordinated through the Office of Academic Affairs.

Initial assessment will focus on IT goals and activities that serve large segments of the college population and that support the goals of improved teaching and learning and greater convenience of college services.

The selected areas in this initial phase of IT assessment are:

- Public Computing Labs
- Faculty Training and Development in the Use of Technology for Teaching, Learning and Research
- Facilitate Classroom Instruction Using Technology Tools
- Online Services

Specific objectives, outcomes and assessment strategies are detailed in the charts that follow and assessment activities will commence in Spring 2007. Annual report on activities including how well the activities worked and changes that have been implemented as a result of assessment will be submitted in May. Progress reports will be submitted each December.

During 2007-2008, detailed plans for the assessment of additional IT goals, including the effort to build a student portfolio of information and computer literacy skills, will be developed and presented to the TLTR as an addendum to this document.

## PUBLIC COMPUTING LABS

**GOAL TO BE ASSESSED:**

Maintain a public computer lab infrastructure that is accessible, well-supported, and technologically current.

**SPONSORING DEPARTMENTS:**

Information Technology Services, Library/Academic Information Technologies, Learning Center

**PARTNERING DEPARTMENTS:**

Academic Departments, Office of Institutional Research

**BACKGROUND/DESCRIPTION:**

At Brooklyn College, mastery and use of technology by students is encouraged in three major areas: by faculty who have integrated technology tools into their curricula, by the Library which licenses and promotes digital access to reference and research material, and by virtue of the many online tools and services that are provided for transacting academic and administrative business.

In order to serve the IT access needs of our commuter students, the College provides access to nearly 1,000 computers in four major facilities: the ITS Public computing lab, the Library, the Learning Center, and the Library Café. Most of these public lab facilities are available Mondays through Fridays for 10-14 hours daily, some provide weekend hours, and the Library Café is open 24 hours a day.

The College strives to ensure that students (and faculty) have convenient, safe, secure access to computers with online access, printing facilities, ready support, and a variety of software applications. Public computing labs are maintained and upgraded regularly, and
staffed to provide responsive customer service, expert technical support, and reliable operation.

## PUBLIC COMPUTING LABS

| | Objective 1 | Objective 2 | Objective 3 |
|---|---|---|---|
| **Objective** | Maintain labs for optimum availability | Meet utilization demands – hours, staffing, workstations | Maintain current |
| **Activities that Address the Objective** | Maintain and repair the equipment as needed. Ensure regular cleaning. Maintain adequate virus, spyware, and other malware protections. | Schedule staff and lab service hours. Field adequate numbers of staff, computers and software licenses to meet demand. | Schedule update images, install a updates, regularl and other equipr faculty to meet a needs. |
| **Expected Outcomes: Utilization** | Facilities and equipment should be available at least 95% of scheduled hours | Students should obtain access with no more than a 30 minute wait time during 90% of all service hours. Students should be assisted with problems during all staffing service hours within 15 minutes. | Subject to curric funding, and pur public computer than 3 years old, more than 2 yea |
| **Expected Outcomes: Faculty Users** | Faculty will be satisfied with the way that labs are configured and the way that their assignment public computing labs. | | |
| **Expected Outcomes: Student Users** | Students should be able to complete assigned work at times that are convenient for them. | Students should be able to obtain access on campus at their convenience and feel comfortable using the technology and services. | Students should equipment and s do their schoolw acceptable ad-ho computing activ |
| **Expected Outcomes: Learning** | Students will be better able to conduct research and to increase their information literacy. | | |

## PUBLIC COMPUTING LABS

| | Objective 1 | Objective 2 | Objective 3 |
|---|---|---|---|
| **Objective** | Maintain labs for optimum availability | Meet utilization demands – hours, staffing, workstations | Maintain curren |
| **Assessment Strategy** | Track session-based and unique-user-based usage statistics over time to gauge utilization. Facilitate student and faculty feedback online. Assess satisfaction using various surveys instruments, including NSSE, LIBQUAL, ITS Customer Satisfaction Surveys and Library/AIT Surveys | Track session-based and unique-user-based usage statistics over time to gauge utilization. Facilitate student and faculty feedback online. Assess satisfaction using various surveys instruments, including NSSE, LIBQUAL, ITS Customer Satisfaction Surveys and Library/AIT Surveys. | Annually evalua software invento Facilitate studen feedback online using various su including NSSE Customer Satisf Library/AIT Sur |
| **Assessment Timetable** | Annual report on activities due each May, including how well the activities worked and change implemented as a result of assessment. Progress reports due each December. | | |
| **Improvement Cycle:** | Academic term | Academic term | Academic term |

## FACULTY TRAINING AND DEVELOPMENT IN USE OF TECHNOLOGY FOR TEACHING, LEARNING AND RESEARCH

**GOAL TO BE ASSESSED:**

Faculty Training and Development in the Use of Technology for Teaching, Learning and Research

**SPONSORING DEPARTMENTS:**

Center for Teaching, Library/Academic Information Technologies, Information Technology Services

**PARTNERING DEPARTMENTS:**

Academic Departments, Office of the Provost, Office of Academic Assessment, Office of Institutional Research, Learning Center, Other Campus Units and Groups as Interested/Appropriate to Specific Events/Projects

**BACKGROUND/DESCRIPTION:**

The Center for Teaching is responsible for faculty development in the area of technology mediated instruction. It assists faculty members in the development of curricula and programs with online components through workshops and other initiatives aimed at elevating information literacy, fluency and utilization in the classroom.

The Library/AIT presents a wide range of development opportunities to faculty, staff and students each year. These opportunities take many forms including college wide workshops, departmental level small group discussions and tutorials, or on-demand one-on-one drop in training at AIT's Faculty Development and Training Lab.

**FACULTY TRAINING AND DEVELOPMENT IN USE OF TECHNOLOGY FOR TEACHING, LEARNING AND RESEARCH**

| | **Objective 1** | **Objective 2** | **Objective 3** | **Objec** |
|---|---|---|---|---|
| **Objective** | Develop and support technology based faculty and student research activities. | Faculty will learn and adopt best practices in technology mediated instruction; cooperative learning; and building learning communities through technology | Faculty will learn software applications, functions, and pedagogical approaches appropriate to teaching in their respective fields. | Develo approa course certific faculty develop best pra to teach partiall |
| **Activities that Address the Objective** | Provide and maintain site or concurrently licensed programs that support research activities.<br><br>Provide hands-on training, and consultation services in specific research tools.<br><br>Subscribe to online databases and/or other scholarly electronic resources. | Three-phase workshops:<br>1) Faculty will learn implementation of 6 best-practices protocols (among which communication; group assignments; collaborative learning.)<br>2) They will adopt them in their classes;<br>3) They will report and share with colleagues successes and misgivings. | Training workshops in specific tools (such as Blackboard, Powerpoint, graphic programs; Adobe Acrobat) and pedagogical approaches. | Consu depart regard specif<br><br>Create semes course or cer<br><br>Semin faculty Field approa feedba systen |

**FACULTY TRAINING AND DEVELOPMENT IN USE OF TECHNOLOGY FOR TEACHING, LEARNING AND RESEARCH**

| | **Objective 1** | **Objective 2** | **Objective 3** | **Objec** |
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| **Objective** | Develop and support technology based faculty and student research activities. | Faculty will learn and adopt best practices in technology mediated instruction; cooperative learning; and building learning communities through technology | Faculty will learn software applications, functions, and pedagogical approaches appropriate to teaching in their respective fields. | Devel appro online degre progra with t develo oppor practi to tea partia |
| **Expected Outcomes: Utilization** | Scheduling of workshops, seminars, etc devoted to faculty use of technology based research tools.<br><br>An increase in the use of electronically based research resources. | An increase in technology-aided courses offered by faculty workshop participants | An increase in technology-aided courses offered by workshop participants | More progra certifi availa<br><br>Enroll course |
| **Expected Learning Outcomes: Faculty** | Faculty enhance their computer and information literacy skills and employ technology based resources and tools in their professional research and their classroom teaching | Integration of conceptual elements of technology-mediated instruction in teaching. | Mastery of software appropriate to for creating original instructional materials, as well as suitable pedagogical approaches. | More involv online traine comfo requir practi tools. . |

## FACULTY TRAINING AND DEVELOPMENT IN USE OF TECHNOLOGY FOR TEACHING, LEARNING AND RESEARCH

| | Objective 1 | Objective 2 | Objective 3 | Obje |
|---|---|---|---|---|
| **Objective** | Develop and support technology based faculty and student research activities. | Faculty will learn and adopt best practices in technology mediated instruction; cooperative learning; and building learning communities through technology | Faculty will learn software applications, functions, and pedagogical approaches appropriate to teaching in their respective fields. | Deve appro cours certif facult devel best p to tea partia |
| **Expected Learning Outcomes: Students** | Students will develop information literacy skills through the integration and assigned use of research materials in their coursework | Students will learn cooperatively and work on projects representing best practices such as e-portfolios. Class will develop collective e-portfolios. | Students will become familiar with technology mediated instruction, multimedia presentations and materials and use specific tools as required by their instructors. | Stude cours satisf oppo onlin satisf cours |
| **Assessment Strategy** | Track workshops/ individual training sessions; survey participants regarding effectiveness/availability of resources; track electronic resource utilization. Report on number of research tools requested, installed and, if keyserv-based, requests. Faculty satisfaction survey. | Assessment will be built into the workshop. Analysis of extent of application of best practices protocols. Follow up surveys and focus groups will also be implemented | Track the number of workshops and/or individual training sessions; survey faculty and students regarding effectiveness and availability of resources. Track the growth of Bb course sites using the AIT Bb Databank | Asse into s of on instru Stude Follo focus imple |

## FACULTY TRAINING AND DEVELOPMENT IN USE OF TECHNOLOGY FOR TEACHING, LEARNING AND RESEARCH

| | Objective 1 | Objective 2 | Objective 3 | Objective 1 |
|---|---|---|---|---|
| **Objective** | Develop and support technology based faculty and | Faculty will learn and adopt best practices in | Faculty will learn software applications, | Develop a programmatic approach to building |

| | | | | |
|---|---|---|---|---|
| | student research activities. | technology mediated instruction; cooperative learning; and building learning communities through technology | functions, and pedagogical approaches appropriate to teaching in their respective fields. | online course sequences, degree and certificate programs; provide faculty with training in best practices and approaches to teaching of fully and partially online courses |
| **Assessment Timetable** | Annual report by the sponsoring units on activities due each May, including how well the activities worked and changes that have been implemented as a result of assessment. Progress reports due each December. | Annual report by the sponsoring units on activities due each May, including how well the activities worked and changes that have been implemented as a result of assessment. Progress reports due each December. | Biennial Report on activities by the sponsoring units; how well they worked, and changes that have been implemented as the result of assessment | Annual report on activities by the sponsoring units due each May, including how well the activities worked and changes that have been implemented as a result of assessment. Progress reports due each December. |
| **Improvement Cycle:** | Academic year | Academic year | Academic year | Academic year |

## FACILITATE CLASSROOM INSTRUCTION USING TECHNOLOGY TOOLS

**GOAL TO BE ASSESSED:**

Implement fixed and mobile facilities/resources designed to facilitate classroom instruction using technology tools.

**SPONSORING DEPARTMENTS:**

Information Technology Services, Library/Academic Information Technologies, Center for Teaching

**PARTNERING DEPARTMENTS:**

Academic Departments, Facilities, Registrar, Office of Academic Assessment, Office of Institutional Research

**BACKGROUND/DESCRIPTION:**

Brooklyn College faculty who have integrated technology tools into their curricula require properly equipped instructional spaces in which to teach their students. These must be technologically up-to-date, easy-to-use, comfortable for students and faculty, securely accessible, and available in sufficient quantities to meet emerging needs. They should address as wide a range of instructional styles as possible and accommodate a range of class sizes.

Currently, instructors use 100 portable presentation carts in legacy rooms, a variety of portable wireless laptop labs, and can teach in 30 smart classrooms (presentation only) and nearly 40 computer classrooms (a computer for each student).

These facilities and resources must be upgraded regularly. They must be monitored and maintained to ensure that they are operational when needed, and faculty must be trained and supported so they can use them effectively.

## FACILITATE CLASSROOM INSTRUCTION USING TECHNOLOGY TOOLS

| | Objective 1 | Objective 2 | Objective 3 |
|---|---|---|---|
| **Objective** | Maintain labs and smart classrooms for optimum availability, reliability and effectiveness. | Meet utilization demands in terms of facilities and technologies. | Provide adequate support and training to faculty using the various facilities and resources. |
| **Activities that Address the Objective** | Maintain and repair the equipment as needed. Work with facilities to ensure regular cleaning and infrastructure repairs. Maintain adequate virus, spyware, and other malware protections. Upgrade the equipment on a regular cycle, as funding allows. Maintain spare consumables, and replacement parts for rapid restoration of facilities following a part failure. | Ensure that rooms and equipment are operational. Make sufficient numbers of rooms and portable solutions available to meet demand. Ensure that smart classrooms are available in various sizes and with a variety of technology resources. | Have support staff available during all teaching hours. Provide one-on-one and group training sessions every term. Post clear instructions. Maintain an instructional technology support hotline. |
| **Expected Outcomes: Utilization** | Facilities and equipment should be available at least 95% of scheduled hours | 75% of faculty should be able to schedule their courses using a computer classroom, smart classroom, a presentation cart, a computer lab or other presentation technology. | All faculty seeking assistance and training in the use of equipment should be able to obtain it within 3 days of the request. Faculty should be able to operate the equipment effectively and have it operating within 5 minutes of the start of their class session. There should be no more than a 15 minute wait time for support in response to 75% of calls during business hours, and 50% of calls during off hours. |

## FACILITATE CLASSROOM INSTRUCTION USING TECHNOLOGY TOOLS

| | Objective 1 | Objective 2 | Objective 3 |
|---|---|---|---|
| **Objective** | Maintain labs and smart classrooms for optimum availability, reliability and effectiveness. | Meet utilization demands in terms of facilities and technologies. | Provide adequate support and training to faculty using the various facilities and resources. |
| **Expected Outcomes: Faculty Users** | Faculty will be able to use more varied and richer content and more effectively convey their material to students. Faculty should feel that the technology is an important tool to help the learning process. | | |
| **Expected Outcomes: Learning** | Technology enhanced instruction should result in more satisfied learners who meet specific learning outcomes articulated in their courses and programs of study. | | |
| **Assessment Strategy** | Support calls and equipment failures that impact usage will be tracked over time to gauge reliability. Online feedback opportunities, and assessments using periodic surveys and/or focus groups. | The registrar will track unfulfilled requests for smart classrooms and computer labs. Departments will report shortages of portable equipment and requests that could not be fulfilled in private departmental computer lab facilities. Online feedback opportunities, and annual assessments using surveys and/or focus groups will be made annually. | Online feedback opportunities, and annual assessments using surveys and/or focus groups will be made annually.<br><br>Faculty who participate in training will complete a short survey at the end of the session. |

## ONLINE SERVICES

**GOAL TO BE ASSESSED:**

Maximizing online access to business transactions and information

**SPONSORING DEPARTMENTS:**

Information Technology Services, Enrollment Services, Business Office, Human Resources, Academic Deans, Academic Departments

**PARTNERING DEPARTMENTS:**

Office of Institutional Research

**BACKGROUND/DESCRIPTION:**

To serve the needs of its large commuter population, Brooklyn College has spent the past decade building online academic and information services and systems that users can access at their convenience, that reduce run-around and speed the processing of transactions, and that protect the confidentiality of those transactions and information. Online services also leverage limited staff resources more efficiently and reduce administrative overhead costs, allowing the college and its users to focus its resources and time on the core mission of instruction and research.

Using Title III funds, the College has built and implemented a sophisticated service portal that delivers a variety of information and services to campus users in a convenient secure fashion. Faculty now use the portal to submit grades attendance, and mid-term progress reports, view student transcripts, view advisement information, view and print course rosters, purchase parking permits, post their office hours and more. Students register, pay their bills, and apply for pass/fail, F-grade replacement, declare their major/minor/concentration, apply for scholarships and graduate programs, and register for CPE tests, assessment tests, and registration appointments.

The College intends to create more services and tools and make available more types of critical decision-making information through its portal infrastructure. Each year, a minimum of two applications for student use and one application for faculty use will be added to portal services. These applications will meet high demand, and will be designed to be user-friendly, secure and effective. Examples of possible services include: online reporting and e-notification of class cancellations, online submission and e-notification of course book assignments, online submission and updating of faculty biographical profiles, tracking for student speech screenings, and online workflow for scheduling graduate comprehensive examinations.

## ONLINE SERVICES

| | **Objective 1** |
|---|---|
| **Objective** | Continue to create effective, secure, user-friendly online applications for students and faculty |
| **Activities that Address the Objective** | Systems analysis; project management; gathering specifications from the sponsor and sample users; specifications, human interface and business logic; verification of conformance to security and privac software, web and database development; portal integration; final usability and functional review; pr staff training; documentation; addition to maintenance routines; informing and educating users; revie and incorporating improvements |
| **Expected Outcomes: Utilization** | Utilization depends on the nature of the service or transaction, but the typical goal is to have usage ra affected users within 2 years of introduction, and then phasing out the corresponding manual process must be determined as part of each specific application's project specifications. |
| **Expected Outcomes: Faculty and Student Users** | Users should find the online process to be reliable, convenient, and effective. Secondary outcomes ar processing overhead, user time saved, and more responsive and accurate processing of transactions. |
| **Expected Outcomes: Learning** | By making it easier and less time-consuming to transact college business, instructors and students are of their time to that activity. Services that make information available at the point of need allow stud better plan their activities. |
| **Assessment Strategy** | Session-based and unique-user-based statistics will be tracked over time to gauge utilization. Online opportunity for users to submit online feedback. Major new applications are assessed through applica and campus-wide surveys such as the NSSE. Application specific focus groups are held as part of the process. |
| **Number of Activities to be Assessed** | Minimum of 2 online student services and 1 online faculty service per academic year |
| **Assessment Timetable** | Annual report on activities due each May, including how well the activities worked and changes that implemented as a result of assessment. Progress reports due each December. |
| **Improvement Cycle:** | Development and updates are implemented on a rolling basis throughout the year, with priority given to meet emerging business process requirements, and to resolve program faults. |