Matrix of Education Support Technology:
A Summary of Goals and Assessment Methods and Plans

Information Technology at Rutgers, like many other peer Universities of its size, has both a central and a distributed component. Many units within Rutgers University, including but not limited to the following, all provide IT support for instruction.

Camden Faculty of Arts and Science (FASC)
Center for Teaching Advancement and Assessment Research (CTAAR)
Division of Continuous Education and Outreach (DCEO)
Graduate School of Applied and Professional Psychology (GSAPP)
Institute for Marine and Costal Sciences (IMCS)
Mason Gross School of the Arts (MGSA)
Newark Faculty of Arts and Science (FASN)
New Jersey Agricultural Experiment Station (NJAES)
Office of Academic Technology (OAT)
Office of Information Technology (OIT)
Rutgers Alumni Relations
Rutgers Business School (Newark and New Brunswick) (SBNNB)
Rutgers Graduate School of Education (GSE)
Rutgers Learning Centers (RLC)
Rutgers University Libraries (RUL)
Rutgers University Television (RUtv)
School of Arts and Sciences (SAS)
School of Business - Camden (SBC)
School of Engineering (SOE)
School of Environmental and Biological Sciences (SEBS)
School of Social Work (SSW)
University Foundation
University Relations (UR)
Wireless Information Network Laboratory (WINLAB)

The following Matrix of Education Support Technology (EST) Goals is a summary of assessment methods and plans across the entire University community. Not all units provide the full range of services or use all assessment methods included in the matrix. Items listed under “Gaps in Assessment” and “3-5 year Improvement Plan” are not necessarily present in all units but are reported by at least one. Many of the units have developed their own unit-specific EST Goals which can be obtained from the unit but are not included in this report.

1. EST Goal: Access to and benefits from access to information. Faculty, staff and students will have access to information that supports teaching, learning, research, and university life.

Technology Service Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements	Gaps in Assessment	3-5 Year Improvement Plan
Computing labs	User satisfaction surveys Monitoring of software usage Evaluation of prototype systems Problem reporting and tracking environments	Learned faculty, staff, and student needs Learned preferred hours of operation Identified peak usage times and patterns Evaluated service life of equipment	Revised Mac/PC ratio Improved and refocused software collection. Improved availability of equipment.	Ability to measure student experience is lacking. Software tracking needs to improve. Insufficient input from faculty regarding design features and functionality of learning spaces	Create advisory committee composed of faculty, students, and staff. Increase feedback opportunities Improve software usage monitors.
Newtworking Wired and Wireless	Monitor use and performance Online user survey Problem reporting and tracking environments	Resource use and needs are quantified Abuse of and difficulty with networking is identified	Availability of services improved Move-in gets new students on line quickly with a minimum of problems	Insufficient understanding of instructor's, student's, and researcher's wired and wireless expectations. Researcher's bandwidth and latency needs need to be quantified.	Create advisory committee composed of faculty, students, and staff.
File Systems	Monthly IT coordination meetings Monitoring of file system usage and performance User and departmental surveys and focus groups. Problem reporting and tracking environments. Monitoring of usage of external third party service providers.	User needs are identified and drive provisioning of file systems. Establishment of a reasonable fee for "above-quota" space Improved planning for expansion of existing services, integration of new services, and adoption of external third party services.	File Server Appliance introduced and space allocation revised. Funding reallocated base on user needs and funding levels. Service degradation is prevented	Student and faculty needs for media rich content are not well understood. Need to measure the benefit to learning and research. Researchers needs for data storage, backup, and disaster recovery need to be quantified.	Create advisory committee composed of faculty, students, and staff.

2a. EST GOAL: Access to and benefits from access to people. Faculty, staff, and students will have access to technologies that promote interaction and collaboration.

Technology Service Supporting Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements based on assessments	Gaps in Assessment	3-5 Year Improvement Plan
Technology Enhanced Classrooms	Periodic user surveys Monitor room use and equipment loaned. Survey faculty opinions on current services and need for new services.	Additional enhanced classrooms are needed Instruction suffers from lack of installed equipment or inadequate equipment Faculty are not well informed about potential uses of enhanced classrooms.	Increased the number of on-campus enhanced classrooms Deployed additional equipment (e.g., individual response systems, brighter projectors, networking)	We do not assess how well enhanced classrooms support instructional goals. We need better data on classroom design and functional needs	Create an academic advisory committee to assess how well enhanced classrooms support instructional goals Introduce workstations that support multiple operating systems. Integrate video conferencing into some enhanced classrooms.
Video conferencing, media rich streaming, and content management	Regular faculty and user satisfaction surveys Monitoring of usage and operational readiness Collect faculty and student recommendations of equipment and software	Ease of operation and performance quantified. Usage patterns identified. Need for additional training identified	A plan has been developed to address ease of access to content. The number of classrooms supporting videoconferencing expanded.	Student satisfaction is collected second-hand from faculty and should be collected from the student.	Include video and videoconferencing issues in the charge to campus and university-wide advisory committees. Develop stronger ties to strategic plans for advancing instruction. Plan for expansion of IP-based video and podcasting Expand deployment and usage of high definition systems
Online meeting and collaborative tools	Monitor connections between streaming services and the number of files, courses, and e-reserves syllabi. Monitor faculty requests, and evaluate current technologies	Recognition that faculty a) are only superficially aware of the potential uses and degree of innovation possible, and b) do not recognize the learning curve associated with quality course development	Individualized support of instructors using collaborative tools Increased interdepartmental assistance Improved ability to provide video conferencing.	Few institution-wide assessment tools. Feedback is limited in scope and clarity.	Plan to increase the number and type of instructor training sessions. Develop stronger ties to strategic plans for advancing instruction Evaluate IP-based videoconferencing in support of one-on-one tutoring, and exam review sessions

2b. EST GOAL: Access to and benefits from access to people. Faculty, staff, and students will have access to technologies that promote interaction and collaboration.

Technology Service Supporting Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements based on assessments	Gaps in Assessment	3-5 Year Improvement Plan
Production and Delivery of Instructional Videos and Podcasts	Post production assessment Focus groups and meetings with departments Peer review of content Competitive award processes for content	Information gained from outcome assessment has resulted in a technology evolution plan that will allow for greater ease of access of learning content	Transitioning to high-definition format Developed a plan and are seeking to install portable recording units.	Assessment methods are adequate	Improve the business plan to increase availability of the resources Production of regular regional public affairs broadcast
Second Life Learning Island	New project development beginning in multiple units	Assessment committees being formed Initial project include student competition	To be determined	To be determined	Expand use of simulations into fifty courses.
e-mail, web hosting	Monitor email connections, traffic, and amount of spam. Monitor page hit, search requests, and perform detailed analysis of specific sites.	Systems are appropriately sized for the current load. Usage and error patterns have been identified. Non-intuitive web-page features have been identified Identified need for integrated email, calendaring, and instant messaging.	Google U email services application suite has improved services and reduced cost. Began evaluation of integrated email, calendaring, IM system. Quick tips and icons have been added to web pages to improve usability Software configured to increase efficiency and reduce errors.	Assessment of student and faculty email and web hosting is lacking. Need to improve ability to quantify benefit to learning and research	Develop plans to realize relevant goals and objectives of the IT Strategic Plan 2006-2011. Report downloads statistics to collection owners. Develop a benefit analysis for repository collections to measure effectiveness.
Mailing and communication lists	Monthly IT coordination meetings Feedback received on mailing lists.	Identified key features needed and specific shortcomings	Improved moderator usability and reduced spam	A Better mechanisms needed to solicit feedback from users.	Monitor activity in the list and automatically query owners about status.

3. EST GOAL: Access to and benefits from technology tools. Faculty, staff, and students will have access to technologies that support teaching, learning, research, and university life.

Technology Service Supporting Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements based on assessments	Gaps in Assessment	Improvement Plan
Hands-on instructional computing labs	Usage data collected electronically Satisfaction surveys Instructors are polled to measure effectiveness. Problem reporting and tracking environments.	Usage data is less useful than data from instructors.	Improved cost effectiveness by Site licensing. Web-based services have reduced the need for physical access.	Assessment of instructors needs is lacking. Little information is collected about the functional needs and specification for learning spaces	Equipment service-life is well managed and the replacement of aging equipment has been done for more than a decade. Fine tuning is needed occasionally. Develop plans for converting and including 21st century learning spaces in existing and new buildings
Course management Systems	Monitor usage, uptime, performance, and reliability Employ available CMS tools to obtain faculty and student assessment. User surveys Sakai pilot deployed and evaluated. Continual faculty and student assessment of eCollege and eCompanion	Demand for TurnItIn made clear by faculty. Strengths and weaknesses of Sakai identified. Faculty recommended full deployment. Identified interest in new services Anticipated deployment Jan 08 of next generation eCourse and eCompanion CMS	TurnItIn kept operational. Sakai being phased in as replacement for WebCT. Improved existing tools and added new tools to Sakai suite.	Assessment needs to be more closely coupled to instructional and research needs.	Expand responsibilities of campus and university-wide advisory committees to include video and videoconferencing. Expand training Address the exponentially growing demand for IT instructional support for CMSs and other instructional tools.
University-wide Site-licensed Software Collection	Projects are under development Faculty and departments are being surveyed.	Current funding processes is inadequate Permanent governance and funding models need to be developed	An initial set of titles have been site licensed	To be determined	Establish a faculty-led committee that will oversee the Software Collection and determine what titles should be site licensed. Develop an effective way to measure software utilization.

4. EST Goal: Access to and benefits from training and support in the use of technology. Faculty, staff, and students will have opportunities to learn how to effectively use technologies that support teaching, learning, research, and university life.

Technology Service Supporting Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements based on assessments	Gaps in Assessment	Improvement Plan
Faculty, Student, and Staff Training	Participant feedback and assessment form completed at end of training sessions. Data is regularly analyzed and training is adjusted.	Feedback has been generally positive indicating that training addresses user needs. Some minor deficiencies identified	Course outlines and methods have been modified. Courses have been added and eliminated.	Assessment does not collect information on how training affects instruction, learning, or job related activities. No evidence if training increases or decreases the use of support services such as the help desks.	Determine if training increases or decreases the use of support services such as the help desks. Regular meetings with users who have attended training are being established.
Help Desk Efforts	Requests for help (e.g., call, email) and resources applied are tracked from request to closure. Users are asked to complete a satisfaction survey when problem has been resolved	Quality of service is rated by users as high. Incoming request to the libraries help desk show a downward trend.	Staffing levels adjusted to meet demand Developed standard procedures to handle common requests.	Need measures of how help desk benefits learning and research.	Develop survey to measure employee performance and responsiveness. Develop measures relevant to Strategic Plan goals and objectives Improve relevance and ease of getting help
Documentation and other online information resources	Regular monitoring of usage and problems. Regular meeting of system administration staff and help desk staff. Occasional user focus groups	New procedures developed through staff meetings. Outdated and orphan pages identified.	Documentation updated to address current needs and new services. Information made current and outdated pages removed.	Need measure how documentation benefits learning and research.	Create advisory committee composed of faculty, students, and staff.

5. EST Goal: Access to and benefits from administrative tools and information. Administrative support for teaching, learning, research, and university life will be enhanced through the use of technology.

Technology Service Supporting Goals	Existing Assessment Methods	Results and outcomes from Assessments	Improvements based on assessments	Gaps in Assessment	Improvement Plan
Online student systems	Monitor web applications performance Solicit Feedback from business process owners and end users. Monitor system workflow and system usage of electronic thesis submission	Usage and performance quantified. Strengths and Weaknesses of systems identified	Web applications improved based on feedback. Wording on the online forms has been improved. Form validation introduced to reduce errors in requests Web sites redesigned to improve ease of use.	Need to develop measures that target and sample student users. Need regular meetings with business process owners	Develop software life-cycle plan that addresses the resources required from design to replacement. Improve ease of use, ability to manage workflow, and timeliness of status reports. Improve integration and interoperability of all online system (e.g. development of a single sign on standard).
Online faculty systems	Monitor web applications performance Solicit Feedback from business process owners and end users. Analyze online and help desk request.	Instructional and research needs identified. Usage and performance quantified.	Web applications improved based on feedback. Additional Web applications developed and deployed to support instruction, research, and access to employee information.	Need to develop measures that target and sample faculty users. Need regular meetings with business process owners	Develop software life-cycle plan that addresses the resources required from design to replacement. Develop networked control and monitoring of enhanced classroom equipment. Improve integration and interoperability of all online system (e.g. development of a single sign on standard).