



Middle States Reaccreditation 2008

SELF-STUDY REPORT

The Institutional Self-Study Report has been developed in preparation for the Middle States Commission on Higher Education 2008 decennial reaccreditation review. Over 200 Rutgers faculty, staff, and students have contributed to this project.

Educational Change at Rutgers: An Institutional Self-Study

[Available below as PDF files]

- Guide to the Self-Study (Executive Summary)
- Institutional Context
- Section I: Undergraduate Enrollment Management and Educational Progress
- Section II: Curricular, Cocurricular, and Extracurricular Services
- Section III: Undergraduate Educational Offerings and General Education
- Section IV: Related Educational Activities
- Section V: Using the Research and Graduate Context to Enhance Undergraduate Education
- Section VI: Assessment of Student Learning
- Section VII: Education and Research in an Urban Setting: Rutgers–Newark
- Section VIII: Community Engagement: Rutgers–New Brunswick and Rutgers–Camden
- Section IX: Intercampus Governance and Devolution
- Conclusion
- Dashboard Indicators

To submit a comment or to report any problems with this site, please use the Rutgers Website Feedback Form.

© 2008 Rutgers, The State University of New Jersey. All rights reserved.

Last Updated: 01/24/2008

▶ SEARCH RUTGERS

Middle States Reaccreditation

- ▶ Home
- ▶ Reaccreditation Timetable
- ▶ Documentation Roadmaps
- ▶ **NEW** Self-Study Report
- ▶ **NEW** Guide to the Self-Study Report (Executive Summary) [PDF]
- ▶ **NEW** Dashboard Indicators (Key Universitywide and Campus Data) [PDF]
- ▶ Middle States Evaluation Visit
- ▶ Self-Study Process Background
- ▶ Frequently Asked Questions
- ▶ Contact

Middle States Commission Resources

- ▶ Middle States Commission on Higher Education
- ▶ Middle States Self-Study Guides

.....
 RETURN TO RUTGERS HOME PAGE



GUIDE TO THE SELF-STUDY

EDUCATIONAL CHANGE AT RUTGERS

JANUARY 25, 2008

Prepared for the
Middle States Commission on Higher Education ❖ Reaccreditation 2008

FORWARD

This guide is an abstract of and introduction to the self-study for the Middle States Commission on Higher Education (MSCHE) and the members of the site visit Review Team. It was initially prepared to serve all members of the Rutgers community and our public constituencies as a pathway into our comprehensive self-study and its associated roadmap and documentation. The guide provides a brief explanation for the structure of the self-study, justification for our choice of related topics, and a mechanism to enable individuals to navigate the sections and locate components that might be of particular interest to them. It also includes a compendium of the salient findings from our intensive self-study process and a listing of the key recommendations that emerged from it.

STRUCTURE OF THE SELF-STUDY

Rutgers, The State University of New Jersey, has chosen the Selected Topics Option I model for its institutional self-study. For this option, we have focused on eight topics that we believe are representative of the broad accomplishments, stature, ambitions, and areas of limitation and concern in our complex and multifaceted institution. The centerpiece of these selected topics is undergraduate education, chosen both because it is our historic and most pervasive mission as a university and, also, as detailed below, because for the past four years the improvement of undergraduate education and its better integration with the two other principal missions, research and service, has been a primary goal on all three of our campuses. In this self-study, we also have addressed one topic carried over from the MSCHE Periodic Review Report of 2003, Intercampus Governance and Devolution.

Following the September 28, 2006, visit of our MSCHE liaison, Dr. Michael Kiphart, the final version of our *Design for Institutional Self-Study* was submitted to MSCHE on November 1, 2006, and approved by Dr. Kiphart on November 6, 2006. By focusing on undergraduate education, the self-study is intended to provide the Rutgers community with a document that offers perspective on the educational change occurring on all our campuses since our last full MSCHE reaccreditation. It has particular relevance to President McCormick's inaugural challenge to all three of the university's campuses to reconsider the structure and curriculum of undergraduate education in the context of the major research university that Rutgers has become. The self-study's utility is also intended to last beyond the present, a time marked by intense activity intended to transform undergraduate education and its organizational structure, to serve as a guide for institutional planning, change, and growth over the course of the next 10 years. To help us achieve this latter outcome, several sections of this report go beyond discussion of undergraduate education to include the fuller range of teaching, research, and service envisioned in our mission.

Our self-study narrative was developed in draft reports by working groups and in some cases subgroups and then thematically unified and further developed by a self-study drafting committee. Reports prepared at the request of the Steering Committee by the faculty of Rutgers University Libraries and by the Office of Information Technology, among many others, served as additional valuable resources for the working groups.

For reference, the sections and MSCHE accreditation standards addressed are indicated in the chart below.

out clearly defined parameters to help assure the academic success of the student-athletes, their effective representation of the university on the field or court, and expectations for the integrity and financial balance of the programs. The Division I program produces an annual report relating various academic performance measures; in 2006 it completed a successful certification review by the NCAA. Important measures are the Academic Progress Rate (APR) and the Graduation Success Rate (GSR). Rutgers had a GSR that exceeded the federal rate in all but one sport for the 1996–1999 cohort and had eight teams in the top 10 to 20 percent of their sport by APR (2004–2005). Internally, the Division of Intercollegiate Athletics strives to achieve an all-sports grade point average that meets or exceeds the all-student average in New Brunswick. An exit survey provides a mechanism for students to provide feedback on the academic support programs. Recent successes in the athletics programs in New Brunswick, especially in football and women’s basketball, have enhanced the recognition and popularity of the university on a national scale. The athletic programs in Camden and Newark have produced teams that are championship contenders in a number of sports. Student athletes regularly participate in assessment activities of both the programs and the athletic staff.

Advising

The Camden, New Brunswick, and Newark campuses each provide in-office, general advising. In New Brunswick, with its new single set of general education requirements, students obtain consistent advice, no matter which advising office they visit. Advising within the major is the responsibility of the academic department or program offering the major. The Newark Campus pioneered an online degree audit system a decade ago, while Camden was the first campus to introduce Degree Navigator, a flexible, online secure degree audit and academic advising system for undergraduate programs. As of July 2007, Degree Navigator is also available to all New Brunswick students and their advisers.

Assessment strategies are used to determine the success of academic advising on each of the campuses. For example, in New Brunswick, student satisfaction surveys, longitudinal data collection measuring rates of retention and graduation, the Noel-Levitz College Student inventory, anecdotal responses, and program attendance surveys are all used for assessment. In Camden, a campus survey uncovered a number of issues involving academic advising that required attention. Based on that feedback, the deans and provost reorganized advising so that it is now administered within the academic units.

Libraries

The goal of the Rutgers University Libraries is to support and enrich the instructional, research, and public service missions of the university through the stewardship of scholarly information and the delivery of information services.

The Rutgers Libraries serve approximately 2.5 million users a year in 26 integrated libraries, centers, and reading rooms universitywide. They serve many more remotely through their website. During 2005–2006, 23,837 students were taught in 1,040 classes scheduled by professors on all three campuses to inform their students of research methodologies in their fields. Rutgers continues to provide users with one of the most comprehensive research libraries in the nation. Its online search and publication download capability makes thousands of journal articles and other scholarly work accessible to students, faculty, and staff at all times.

Rutgers University Libraries use various assessment methods. For example, in spring 2005, the Libraries participated in an international assessment survey entitled LibQual+® and conducted multiple focus groups, surveys, and interviews in preparation for a new strategic plan. To evaluate success of undergraduates in learning information literacy competencies, the Rutgers Libraries participated in development of the Project SAILS (Standardization Assessment of Information

Literacy Skills) assessment instrument and offered a quiz within Searchpath, the Libraries' online tutorial.

The university plans to undertake the development of an information literacy assessment plan that is integrally linked to the new School of Arts and Sciences core curriculum in New Brunswick, including learning outcomes, assessment measures and criteria, and an assessment schedule. The Rutgers University Libraries are playing a key role in the development of the new undergraduate core curriculum and, where appropriate, in new undergraduate initiatives such as learning communities, capstone courses, and the honors program in New Brunswick.

Career Services

Career Services provides an extensive and varied set of opportunities on all campuses for students to explore and refine career choices. Various surveys indicate that students are increasingly satisfied with its programs, as are prospective employees and recruiters.

Health and Psychological Services

A wide spectrum of fully accredited health services is available in Camden, New Brunswick, and Newark, including primary and specialized care as well as educational programs that encourage a healthy personal college lifestyle and community health. In academic year 2006–2007, there were 57,413 visits to all of the health centers. In New Brunswick, the services are fully accredited by the Joint Commission of Accreditation of Healthcare Organizations and student satisfaction has been maintained at a 95 percent level or better over the past several years. The Accreditation Association for Ambulatory Health Care accredits Rutgers–Camden and Rutgers–Newark Student Health Services.

A wide range of counseling services is available on all three campuses. The university has developed procedures and policies for identifying and responding to students with mental health issues. The new structure for undergraduate education in New Brunswick permitted some consolidation of service delivery points from a disparate set of programs offered by the individual colleges; consolidation and reassignments have created the critical mass of counselors needed to provide specialized counseling and adequate coverage.

BASIC SKILLS SUPPORT SERVICES

Rutgers offers a wide range of basic skills support services. Underprepared students are appropriately placed in a variety of noncredit and credit-bearing courses. To guide this process, all first-year and transfer students entering the university are required to complete placement testing except for students with otherwise demonstrated proficiencies. New Brunswick and Camden use the Rutgers University Placement Test, developed by our mathematics and English departments and administered by the Office of Institutional Research and Academic Planning. Newark uses the ACCUPLACER developed by the College Board. Both are reviewed periodically.

One of the university's learning goals is proficiency in writing. Approximately 12 percent of the incoming students are placed into a basic skills writing course—either a one- or two-semester noncredit course or a credit-bearing course that offers supplementary assistance. Data developed by the Writing Program in New Brunswick indicate that the basic skills program successfully helps students to develop the writing proficiency required to succeed in college.

Another learning goal is that students develop their skills in problem solving through mathematical processes. Approximately 28 percent of entering students are placed into mathematics basic skills courses.

have been brought together from the four former liberal arts colleges to create one school. Faculty affiliated with this unit will now play a far greater role in undergraduate education than in the past.

Transforming Undergraduate Education is also changing the way we think about education at Rutgers, focusing on the research mission of the university. TUE reforms challenge students to take an active role in working with faculty to access the richness of research resources available at Rutgers. Development of a new core curriculum reflecting this ideal is among the highest current priorities. To date, an interim set of core standards has been devised and put into effect. SAS now has one set of admissions standards and academic expectations; its faculty are responsible for admissions, general education, and graduation policies for its students. An interim curriculum committee, comprised of faculty from SAS and from the professional schools, has developed this provisional curriculum, designed as “a starting point for a campuswide discussion of the rationale for undergraduate core distribution requirements.” This interim set of requirements is in effect for the first-year classes entering Rutgers in 2007 and 2008.

But the crucial work lies ahead; SAS must develop and adopt a core curriculum that will define what a Rutgers liberal arts degree is and thus what it means to be a Rutgers graduate. A “second wave” Ad Hoc Core Curriculum Committee began meeting in spring 2007 to develop a set of core requirements for first-year students entering in 2009 and into the future. The committee is creating a new core curriculum, including clearly articulated learning goals for all SAS students, requirements to meet those goals, methods of assessing the achievement of those goals, and a mechanism for regular feedback of the results of assessment with constant improvement and reinvigoration of the courses.

An indicator of the scope and scale of changes made in undergraduate education, and a prime example of the initiatives to help integrate our educational programs into our research and service missions are the newly inaugurated first-year seminars. Taught in small enrollment sections by tenured or tenure-track faculty, the seminars are providing hundreds of New Brunswick students with an introduction to research as the foundation of their own education and as work to which they can eventually contribute through their own participation. In the first academic year, about 120 seminars are being offered.

Learning communities are also providing students with opportunities to interact with faculty in cocurricular academic environments. In response to similar intellectual concerns, the professional schools have also assessed their curricula and instituted reforms. Thus, this section also describes new initiatives at the Ernest Mario School of Pharmacy, Mason Gross School of the Arts, and School of Management and Labor Relations. Each of these units has devised ongoing ways to improve and enhance its curricula for the benefit of undergraduate students.

The Newark and Camden campuses have also responded proactively to Middle States recommendations and the university’s concerns about student participation in research and improvement of undergraduate education. Newark faculty have launched new initiatives, including an expanded Honors College, a new “Writing Across the Curriculum” program, and a process to reevaluate the general education curriculum. Camden faculty have developed a new Freshman Seminar Program and have revised general education requirements.

OVERVIEW OF UNDERGRADUATE EDUCATION

Each school at Rutgers has its own set of learning goals and objectives, within a universitywide assessment plan and framework, and all departments either have or are working on implementing/revising their individual learning goals and objectives. General education curricula, while differing somewhat on the three campuses, also have common learning goals, in the areas of oral and written communication, quantitative reasoning, critical analysis and reasoning, technical

see next page

competencies, and diversity/global understanding, and share a commitment to documentation, analyses, and feedback regarding learning goals and objectives.

Research and field experiences, strongly encouraged by TUE, give students opportunities to complement their academic programs through interaction with faculty outside of the classroom. The deep engagement of the faculty in the research community encourages students to follow this example and, increasingly, with faculty encouragement, to seek this deeper engagement in their academic careers.

This section includes a discussion of recent initiatives, including extensive programs provided by Rutgers University Libraries and by learning centers across the university, to support student learning. Information technology is playing an increasingly important role in enhancing communications and supporting the educational endeavor. Because of the importance of assessing quality, Section III also describes the university's ongoing academic review process and provides a rationale for recent revisions in the process.

The process of reimagining undergraduate education across the university is addressing critical questions about educational offerings, including programs of study and their responsiveness to changing needs, curricular revisions, dual and joint degrees, and programs designed to encourage and support undergraduate research. Since the last reaccreditation in academic year 1997–1998, Rutgers has launched a total of 55 new degree programs. An extensive review process, from the department to senior administration within the university, ensures careful assessment of each proposed degree program.

Outstanding student achievement and faculty awards for excellence in teaching serve as indicators of Rutgers' success in undergraduate education. Section III concludes with a discussion of these accomplishments.

SECTION IV: RELATED EDUCATIONAL ACTIVITIES

Consistent with its tripartite mission of teaching, research, and service, Rutgers brings its instructional resources out into the larger community through various programs or activities that *Characteristics of Excellence in Higher Education* (MSCHE, 2006) categorizes as Related Educational Activities. Section IV discusses those activities that pertain to Rutgers except for Basic Skills, addressed in Section II, and internships and study abroad, described in Section V.

OFF-CAMPUS AND DISTANCE LEARNING

Through off-campus and distance education the university meets the varied educational needs of New Jersey residents and others, reaches locations in the state underserved by senior public institutions, and provides a broad array of professional and life-long learning opportunities in response to the intellectual and vocational objectives of its constituencies.

Motivated by an interest to enhance access to their educational programs, faculty at each school at Rutgers determine what programs to offer off-campus or online. The Division of Continuous Education and Outreach (DCEO) supports the school-based activities and nontraditional students through its leadership role in oversight, communications, standards and technical support, training, and coordination.

As part of the self-study process, we surveyed all academic units offering undergraduate and graduate credit courses and credit-granting programs delivered through traditional classroom formats

in off-campus locations and via distance/distributed systems to evaluate the accessibility and the quality of these programs. In each of the units, the processes and procedures used to select faculty, review syllabi, and evaluate courses are the same for off-campus sites, distance/distributed offerings, and on-campus programs. Online and off-campus courses are designed for smaller enrollments than their on-campus counterparts. The relatively low limit on class size in these offerings, despite obvious financial benefits from larger sections, speaks clearly to the emphasis academic units have placed on maintaining the quality of these learning experiences.

Students in off-campus locations and online programs receive advising services by phone, email, and at off-campus sites. Rutgers University Libraries provides services to off-campus and online students through online tutorials, access to electronic resources, and delivery of documents to students' desktop computers and to locations throughout New Jersey and neighboring states.

To help meet the need to provide for higher education opportunities in underserved areas in the state, Rutgers has formed partnerships with two community colleges. The Rutgers–Brookdale Community Partnership at the Western Monmouth Higher Education Center on the Freehold campus of Brookdale Community College makes it possible for students who complete the associate's degree at Brookdale to finish the Rutgers' baccalaureate degree on-site. The Rutgers–Atlantic Cape Community College partnership allows students with the associate's degree to complete the Rutgers' baccalaureate at the ACCC–Mays Landing Campus. Five undergraduate degree completion programs are currently available at each location. Rutgers is currently exploring offering additional degree completion programs at both the undergraduate and graduate level at the Freehold and Mays Landing sites.

Rutgers' participation in the New Jersey Coastal Community in Monmouth County on the Brookdale Community College campus in Wall is another response to the need for new and extended resources off-campus. In June 2007, Rutgers opened another off-campus site; the university launched the Rutgers School of Public Affairs and Administration's Executive Master of Public Administration program on-site in Newark City Hall for city employees and professionals in other public and nonprofit organizations.

Online educational programming at Rutgers is modest, but continues to grow. Three complete graduate degree programs are available, but it is not yet possible to complete an undergraduate degree online.

Electronic course management systems support classroom and online courses. In addition to Rutgers Online with its eCollege management system, the Blackboard course management system is available on the Newark campus. Sakai, a collaboration tool and potential management system, is available universitywide. Hybrid courses that use a course management system to support classroom instruction with web technology are the preferred format for an increasing number of university classes. Academic units using blended courses that supplement classroom with online resources provide a foundation for those units to move into distance learning in the near future.

NONCREDIT OFFERINGS

At Rutgers, over 30 different financially independent and self-supporting administrative units provide noncredit continuous education. The Division of Continuous Education and Outreach, which coordinates and supports their efforts both on site (on- and off-campus) and online, has almost 95,000 enrollments each year. Through its reporting system, DCEO also monitors financial elements of activities connected with their noncredit continuing education programs. Faculty in each school are fully responsible for content and academic oversight.

established requirements set by the appropriate specialized accrediting body. The goals and methods used for general education development and assessment on each of the three campuses are discussed in this section. The previous structure of the liberal arts colleges made the development of uniform learning outcome assessment tools very difficult. The new collegiate structure in New Brunswick, created as a result of the implementation of the Task Force on Undergraduate Education recommendations, will help the university do a better job of assessment in this area. This part of Section VI also describes the changes being implemented in New Brunswick for the core curriculum and its assessment. An overview of assessment practices in the Writing Program is presented as an example of general education assessment.

Departmental and Program Learning Outcome Assessment Practices

The results of an Assessment Inventory, conducted in October 2006, are described in Section VI. A few departmental learning outcome assessment plans are presented as examples of best practices to date. These include in New Brunswick, Environmental Science, Food Science, Cell Biology and Neuroscience, Mechanical Engineering, and the Graduate School; in Newark, the Teacher Education Program and the College of Nursing; in Camden, the School of Business–Camden; and universityside, a critical supporting unit for learning outcomes, Rutgers University Libraries.

WHERE WE ARE NOW

The university is actively involved in a wide range of assessment activities—including pilot testing some of the national instruments, such as NSSE and CLA; devising our own assessment tools; strengthening our own institutional resources to bring concepts into practice; and encouraging the development of a widespread understanding of the functions of assessment universitywide. The transformation of our undergraduate core curricula is also stimulating assessment initiatives; changes in general education and in education in the undergraduate major are all being designed with significant built-in assessment components. Over the next few years these features will become more deeply embedded in Rutgers' culture.

We have already evaluated all of our academic departments to determine what kinds of learning outcomes assessment they now employ. University offices responsible for assessment and institutional research are taking on more responsibility for encouraging rapid development of effective assessment measures and realistic timelines for implementation are in place. The university's central administration is strongly committed to this sea change; budget and planning decisions—previously loosely coupled with assessment data—are now increasingly dependent on these data. This change is supported by all-funds budgeting, a data-driven budgeting process that allows deans to more closely integrate institutional resources with accomplishment of their schools' academic priorities. The relationship between resources and assessment will be strengthened as the culture of assessment increasingly pervades the way we do business at Rutgers. We have established a number of key universitywide strategic planning committees, including an Executive Committee on Assessment, to oversee, coordinate, and support the development and integration of thoughtful and useful assessment practices, and we are committed to going forward.

MOVING FORWARD

The changing nature of expectations of higher education coupled with the availability of new technologies that bring vast quantities and varieties of information to everyone is changing the standards that we are expected to meet with regard to measures of the academy's success. These new expectations necessitate new institutional structures within higher education and within the university that better document and make transparent the success of our students. More than ever, we recognize the importance of being able to codify our learning goals, prove the extent to which we achieve them,

and demonstrate how matriculation at Rutgers makes a difference for those who earn a Rutgers degree.

To this end, the university has reorganized the Center for Teaching Advancement and Assessment Research (CTAAR), previously known as the Center for the Advancement of Teaching, with an expanded mission to invigorate and coordinate assessment activities and to bring energy, resources, and visibility to new and innovative assessment activities throughout the university. CTAAR will provide the means for the university to communicate with the state and the nation through publications, websites, and open workshops and presentations on topics in assessment. Through the center's programs, the university will cooperate with other institutions of higher education throughout New Jersey to learn from each other about best practices, and to share the results of pilot projects and new initiatives. Rutgers is approaching learning outcomes assessment, for both general education and for departments and programs, as a continuous and long-term process, based on sound research principles that can be a model for institutions in the state of New Jersey and the nation. As an administratively sanctioned, highly visible, respected, and experienced central resource to promote and implement effective assessment strategies across the university, CTAAR will be a key resource in transforming faculty interest and commitment to assessment.

Over the next five years, CTAAR's broad mandate includes a review of assessment practices in all facets of university function that affect student life and learning. CTAAR's leader, who now holds the new title of associate vice president of academic affairs for teaching and assessment research, will bring a unified vision to assessment practices while still providing for the diversity necessary to enable varied disciplines and operations to design effectiveness measures that meet their specific missions. The university's new assessment mechanisms will utilize and build on the many successful practices and programs on which it has relied for years.

Section VI describes the new universitywide structure and procedures for learning outcome assessment, including the Assessment Advisory Committees for each school; the Assessment Council to oversee the four-year reporting and feedback cycle for all departmental processes for learning outcome assessment across the university; and the Executive Council for Assessment, the strategic planning body for learning outcome assessment in the university. The Executive Assessment Council, chaired by the executive vice president for academic affairs, is a forum for senior university leadership to develop the university's assessment strategy, enhance the culture of assessment, and develop and sustain linkages among planning, assessment and continuous improvement throughout the university.

This section also outlines new learning outcome assessment initiatives, begun in 2007. These include a longitudinal assessment of the communication learning goal; assessment of the information literacy learning goal with the help of the Rutgers University Libraries; pilot projects for student learning portfolios, using the Online Student Portfolio software in Sakai; a pilot of the Collegiate Assessment of Academic Proficiency exam; piloting the Collegiate Learning Assessment instruments for first year students and seniors; and another cycle of the National Survey of Student Engagement.

SECTION VII: EDUCATION AND RESEARCH IN AN URBAN SETTING: RUTGERS-NEWARK

Section VII focuses on the urban mission of Rutgers-Newark and assesses it from three main vantage points: student characteristics, educational offerings, and faculty engagement. The self-study provided

- Accounting, internal control, and audit
- University level promotion and tenure review
- Management of the library system
- Management of facilities construction
- Debt management
- Universitywide budgeting.

The president, the executive vice president for academic affairs, the senior vice president for administration and chief financial officer, the secretary of the university, the vice president and general counsel, the provost–Camden and the provost–Newark are identified in Rutgers University policies as the seven principal university officers and these policies specify their responsibilities.

The uniform financial profile of the university makes it clear that for purposes of financial reporting the Camden, Newark, and New Brunswick campuses are not separate entities. They do not independently issue debt or borrow money. In contrast, the new system of all-funds budgeting is an example of devolution. Implemented beginning in AY 2003–2004, this new budgeting process for the first time allocates a fixed percentage of tuition revenues to the units that generate the revenue, increases the return of grant overhead to the units that receive the grants, encourages entrepreneurship by deans and provosts, and increases rates of return of net proceeds from various other revenue sources, thus allowing deans to more closely integrate institutional resources with accomplishment of their schools' academic priorities.

In areas under the senior vice president of administration and chief financial officer, significant examples of devolution include:

- Authority of the director of purchasing–Newark to approve purchases, purchase orders, contracts, and agreements that have a total value up to \$250,000
- Establishment of Newark Computing Services, Camden Computing Services, and New Brunswick Computing Services as part of the Office of Information Technology's Campus Computing Services unit
- Devolution of responsibility for most aspects of post-award grant administration on the Newark Campus to the Newark Grant and Contract Accounting office.

In areas under the executive vice president for academic affairs, significant examples of devolution include:

- July 2003 shift of operating budgets and line personnel for the Camden and Newark admissions offices to the campus provosts
- 2003 restructuring of the Office of Financial Aid which resulted in the campus director at Newark reporting to the Newark vice provost and the campus director at Camden reporting directly to the Camden associate provost for enrollment management
- Responsibility of the Camden and Newark provosts for their campus Registrar's Offices
- Responsibility of the admissions offices on the Camden and Newark campuses to their respective provosts
- Authorization by the university for both the Rutgers–Newark Office of Sponsored Research and the Rutgers–Camden Office of Sponsored Research to serve as pre-award grant administration units

- 2003 restructuring of Rutgers University Health Services that resulted in three student health services, each operating and accredited independently, reporting to a campus official, and maintaining independent budgets.

This section also summarizes key governance issues, including academic standards, labor relations, faculty and staff personnel policies, governance and policy for the Rutgers University Libraries, as well as the recent establishment of an online university policy library.

This section contains no current recommendations. It concludes by noting that absent any discernible movement toward revisiting the restructuring proposals by the state and governor, the system of strategic devolution we have in place has, on balance, served us well. It will continue to be refined and improved, and the university is committed to an ongoing process of addressing any remaining issues and those which will inevitably arise in the future.

RECOMMENDATIONS

SECTION I: UNDERGRADUATE ENROLLMENT MANAGEMENT AND EDUCATIONAL PROGRESS

1. Refine and implement undergraduate enrollment management plans and initiatives on all campuses while enhancing systems and programs to strengthen quality, retention, and graduation rates.

Primary responsibility: Vice president for enrollment management

Assessment: Monitor outcomes and revise plans and programs as appropriate.

2. Develop a comprehensive strategic plan for increasing merit and need-based financial aid and designate resources to sustain or enhance university enrollment, diversity, access, opportunity, and equality goals.

Primary responsibility: Vice president for student affairs

Assessment: Document and disseminate plan, and monitor enrollment, quality, diversity, access, opportunity, equality, and goals for enhancement of financial aid resources outcomes.

SECTION II: CURRICULAR, COCURRICULAR, AND EXTRACURRICULAR SERVICES

1. Continue to develop, enhance, and implement programs that bridge academic and student life-based learning in line with TUE report in New Brunswick and respective initiatives in Newark and Camden.

Primary responsibility: Executive vice president for academic affairs

Assessment: Track outcomes and progress universitywide and by campus, and in comparison to peer institutions.

2. Improve coordination between and among academic support units, oversee collection of learning outcomes data for these units.

Primary responsibility: Vice president for undergraduate education, provosts

Assessment: Track outcomes and progress relative to effectiveness of learning support programs.

3. Enhance student life services and programs to strengthen students' engagement with the university and the quality of the student life experience.

Primary responsibility: Vice president for undergraduate education, vice president for student affairs, provosts

Assessment: Track and monitor outcomes and progress in development of programs to strengthen student engagement and enhance quality of student life.

**SECTION III: UNDERGRADUATE EDUCATIONAL OFFERINGS
AND GENERAL EDUCATION**

1. Complete the development and approval of a New Brunswick core curriculum for all liberal arts students and the components of the core that are part of the curricula of the professional schools; continue to develop educational programs on all campuses that broaden students' educational opportunities.

Primary responsibility: Executive vice president for academic affairs
Assessment: Develop a portfolio of program evaluation and learning outcome measurement tools to document outcomes, monitor progress over time, and promote the use of outcomes information in planning and improvement efforts.

2. Promote and provide expanded opportunities and access for study abroad while developing new and strengthened academic initiatives in global and international studies.

Primary responsibility: Dean, Rutgers Study Abroad and provosts
Assessment: Monitor outcomes, including participation in study abroad programs; monitor approval and promotion of new majors, minors, and certificate programs in global and international studies.

3. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

Primary responsibility: University librarian, vice president of information technology, and vice president for continuous education and outreach
Assessment: Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.

SECTION IV: RELATED EDUCATIONAL ACTIVITIES

1. Continue to develop strategic partnerships that foster high quality programs for the educationally underserved residents of the state, including adult/nontraditional students.

Primary responsibility: Dean of University College Community, provosts

Assessment: Assess outcomes and progress in addressing needs of adult/nontraditional students, both on- and off-campus.

2. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

Primary responsibility: University librarian, vice president of information technology, and vice president for continuous education and outreach.

Assessment: Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.

3. Building on existing strengths, develop new cooperative education programs that broaden experiential learning opportunities for undergraduate liberal arts and science and professional school students in Camden, Newark, and New Brunswick.

Primary responsibility: Executive vice president for academic affairs and provosts

Assessment: Monitor outcomes and progress on plans and goals.

4. Work with departments, programs and schools across the university to develop a portfolio of certificate programs for undergraduates and graduate students; develop mechanisms to fully inform the university community of these opportunities.

Primary responsibility: Executive vice president for academic affairs and provosts

Assessment: Monitor progress in developing new programs and track the effectiveness of communication efforts.



O - library

INSTITUTIONAL CONTEXT

Section I

UNDERGRADUATE
ENROLLMENT MANAGEMENT
AND EDUCATIONAL PROGRESS

Standard 8 and Aspects of Standard 11

O. Libras



Section II

CURRICULAR,
COCURRICULAR, AND
EXTRACURRICULAR SERVICES

Standard 9 and Aspects of Standard 13

SECTION II: CURRICULAR, COCURRICULAR, AND EXTRACURRICULAR SERVICES
 (STANDARD 9 AND ASPECTS OF STANDARD 13)

Historical Context on the New Brunswick Campus.....	1
Student Affairs and the Student Experience	2
Programs to Advance Student Learning.....	3
Engaging Students in Active Learning	3
Housing and Residence Life	4
New Brunswick	4
Newark and Camden	5
Student Centers and Programs	6
New Brunswick	6
Newark and Camden	8
Recreation.....	8
New Brunswick	8
Camden and Newark	9
Intercollegiate Athletics	9
New Brunswick	10
Newark and Camden	10
Advising.....	11
Tutoring	12
New Brunswick	12
Camden and Newark	13
Career Services	13
Libraries.....	14
Health Services	15
Psychological Services	16
New Brunswick	17
Newark	17
Camden.....	18
Basic Skills Support Services	18
Identifying Under-Prepared Students	19
Basic Skills Courses in Writing	19
Assessment	20
Basic Skills Courses in Mathematics.....	20
Assessment	21
Developmental Courses	21
Assessment	21
Support Services	21
Educational Opportunity Fund Program.....	21
Assessment	22
Student Support Services Program	22
Learning Centers.....	23
Other Campus Services	23
Dining Services.....	23
Assessment	24
Public Safety.....	24
Assessment	25
Building a Supportive and Inclusive Community	26
New Brunswick	26

In 2005–2006 on the New Brunswick Campus, there were 100,365 office visits made by students to the Career Services locations. Website visitors numbered 615,422, career counseling session attendees were 5,009, résumé critiques were 3,233, career-day attendees were 10,502, and seminar attendees were 19,100. On the Newark Campus, there were 2,567 visits by clients to the Career Development Center in 2005–2006. In addition, the center conducted 94 group sessions in collaboration with different departments such as EOF, athletics, the Honors College, and an array of student clubs and organizations. Website visits increased 38 percent from the previous year to 458,417. Newark career fairs, both on and off campus, brought together 518 employers with 5,191 job candidates. A total of 15,570 internship and employment leads were developed/posted on the office's different online programs. The number of credit-bearing and paid internships continues to rise as additional departments collaborate with the center on placement sites. The Career Center in Camden provides a special for-credit internship course supervised and taught by a staff member. The course offers either elective or major credit to students in career-related internships.

The Senior Report – Class of 2006, a voluntary survey completed by graduating seniors in New Brunswick to assess their experience with Career Services, indicated that 83 percent of the respondents rated Career Services “excellent” or “good,” up from 74 percent in 2004. Ratings for individual career counseling sessions and seminars are also consistently high. The Career Development Center in Newark utilizes feedback surveys after each client visit. The results reveal a better than 90 percent satisfaction rate with client/staff interactions. The 2005–2006 Senior Survey in Newark revealed positive ratings reported by more than 80 percent of graduating seniors with regard to their overall experiences with the center. The Class of 2006 outcomes report for Camden found that 94 percent of business majors and 67 percent of arts and sciences majors were employed as of six months after graduation. In addition, 7 percent of business majors and 30 percent of arts and sciences majors were entering graduate school. Based on assessments, the center in Camden has introduced many technological innovations over the last several years, including an interactive conference room with teleconferencing and webinar capabilities, an interactive interview preparation program that allows students to send in a taped mock interview for critique, and online résumé creation tools and email feedback opportunities.

Methods to strengthen career services at Rutgers include increasing counselors' time of direct contact with students, building stronger ties with faculty and academic departments in order to increase credit-bearing internship opportunities, and introducing new technologies to improve data collection and services.

LIBRARIES

The goal of the Rutgers University Libraries (RUL) is to support and enrich the instructional, research, and public service missions of the university through the stewardship of scholarly information and the delivery of information services.

The Rutgers Libraries serve approximately 2.5 million users a year in 26 integrated libraries, centers, and reading rooms universitywide. They serve many more remotely through their website. During 2005–2006, 23,837 students were taught in 1,040 classes scheduled by professors on all three campuses to inform their students of research methodologies in their fields. In addition, over 5,000 individuals used the Searchpath tutorial. Rutgers continues to provide users with one of the most comprehensive research libraries in the nation. Its online search and publication download capability makes thousands of journal articles and other scholarly work accessible to students, faculty, and staff at all times. Physical access to the multiple collections of books and periodicals is extensive with some university libraries open until 2:00 a.m. most days.

Information Literacy Competency Standards for Higher Education (2000) have been adopted as the learning goals for the Rutgers University Libraries. These standards were developed by the Association of College and Research Libraries and have been endorsed by the Middle States Commission on Higher Education.

RUL uses various assessment methods. For example, in spring 2005, they participated in an international survey assessing libraries entitled LibQual+® and conducted multiple focus groups, surveys, and interviews in preparation for a new strategic plan. To evaluate success of undergraduates in learning information literacy competencies, RUL participated in development of the Project SAILS (Standardization Assessment of Information Literacy Skills) assessment instrument and offered a quiz within Searchpath, the Libraries' online tutorial.

The university plans to undertake the development of an information literacy assessment plan that is integrally linked to the new School of Arts and Sciences core curriculum in New Brunswick, including learning outcomes, assessment measures and criteria, and an assessment schedule. RUL is playing a key role in the development of the new undergraduate core curriculum and, where appropriate, in new undergraduate initiatives such as learning communities, capstone courses, and the honors program in New Brunswick.

The Libraries need to update existing facilities and construct new ones to meet the changing requirements of 21st-century library services and resources. They are currently developing facility-needs plans in conjunction with the upcoming university capital campaign. They also are committed to providing the social and cultural gathering spaces that enrich academic dialog and create community. Group study rooms, for example, are needed across the library system to support new teaching methodologies that require collaborative work and new styles of student learning. Students persistently ask for group space and frequently rearrange furniture to accommodate this need. Separate group study rooms will meet this need and preserve other spaces for quiet study.

HEALTH SERVICES

The primary goal of Rutgers University Health Services in New Brunswick is to provide health care, psychological services, and health education that meet the needs of all university students. The three health services facilities in New Brunswick and Piscataway provide comprehensive ambulatory health care, psychological services, and student education. In 2006, the three health centers saw 13,693 patients in 40,262 visits. A wide range of services is provided, including general primary care, gynecological care, psychiatric services and psychological counseling, alcohol and substance abuse treatment, immunizations, allergy injections, laboratory tests, physical examinations, sexually transmitted infection testing, tuberculosis testing, and travel immunizations.

The health education component provides training experiences that encourage both a healthy college lifestyle and community health. Professional health educators train groups of students who in turn provide a wide range of programs throughout campus. The students become experts in a health-related area and are frequent presenters at residence hall programs, orientations, student staff training, and other events for student groups.

Health center staff include physicians, advanced practice nurses, registered nurses, pharmacists, psychiatrists, licensed clinical alcohol and drug counselors, licensed psychologists, and college health educators. When the health centers are closed, a telephonic Advice Nurse Line provides students with assistance in making informed health care decisions.

The Rutgers University Health Services in New Brunswick uses information obtained through assessment of services and collected health care data to maintain a standard of high-quality care and improve performance. On-site surveys, random email surveys, on-site comment boxes at each of the

WEBSITES REFERENCED IN SECTION II

Student Services Retreat report 2003-2004

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/StudentServicesRetreat03-04.pdf>

Student Services Retreat Implementation report 2003-2004

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/StudentServicesRetreat-Implementation.pdf>

Task Force on Undergraduate Education

http://ur.rutgers.edu/transform_ru/

Student Affairs Update

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/SA-Updates06-07.pdf>

Rutgers University Calendar of Events

<http://ruevents.rutgers.edu/events/>

University Student Centers

<http://getinvolved.rutgers.edu/>

On-Campus Promotion Resources

<http://ruinfo.rutgers.edu/promos/>

Rutgers Recreation

<http://recreation.rutgers.edu/>

Annual Report on Intercollegiate Athletics

<http://www.scarletknights.com/mission/annualreport06-07.pdf>

Rutgers College Retention Assessment, 2004-2005

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/RC-RetentionAssessment.pdf>

Tutoring Methodologies

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/TutoringMethodologies.pdf>

Tutoring Technology

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/TutoringTechnology.pdf>

Tutoring Methodologies by Center

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/TutoringMethodologies-centers.pdf>

Tutoring Usage Statistics

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/Tutoring-Usage-Stats.pdf>

Additional Tutoring Usage Statistics

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/Tutoring-Usage-Stats-additional.pdf>

Career Services - Senior Report - Class of 2006

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/SeniorReport2006.pdf>

Rutgers Universities Libraries – Searchpath

<http://searchpath.libraries.rutgers.edu/>

American Library Association - Information Literacy Competency Standards for Higher Education

<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.cfm>

State of NJ - CHE - Educational Opportunity Fund

<http://www.nj.gov/highereducation/EOF/>



Section III

UNDERGRADUATE
EDUCATIONAL OFFERINGS
AND GENERAL EDUCATION

Standards 11 and 12

SECTION III UNDERGRADUATE EDUCATIONAL OFFERINGS AND GENERAL EDUCATION
(STANDARDS 11 AND 12)

Introduction	1
Reimagining Undergraduate Education	1
The TUE Vision of a Rutgers Education	2
The Vision of a Core Curriculum in New Brunswick	2
First-Year Seminars and Learning Communities	4
Undergraduate Initiatives at Three Professional Schools	5
Ernest Mario School of Pharmacy	5
Mason Gross School of the Arts	5
School of Management and Labor Relations	5
Undergraduate Initiatives at Newark and Camden	5
Rutgers–Newark	6
Rutgers–Camden	6
Rutgers–New Brunswick: A Time of Transition	7
Undergraduate Education at Rutgers: Recent Overview	9
Established Learning Goals	9
Current General Education Curriculum	9
Research and Field Experience	10
Oral and Written Communication	11
Library Support	12
Applying Information Technology to Education	13
Support for Achieving Learning Goals	14
Ongoing Review Processes	15
Educational Offerings	16
Programs of Study: Responding to Changing Needs	16
Curricular Revisions	17
Dual and Joint Degrees	18
Programs Designed to Emphasize and Support Undergraduate Research	19
Aresty Research Center for Undergraduates	19
Honors Work	20
First-Year Seminar Programs	20
Learning Communities	20
First-Year Interest Groups (FIGs)	21
Capstone Courses	21
Study Abroad	21
The Global Village	21
Office for the Promotion of Women in Science, Math, and Engineering	21
Achievement and Excellence	22
Student Achievement	22
Faculty Excellence	22
Conclusion	23
Recommendations	24
Websites Referenced in Section III	25

placement, students move through a series of courses that conclude with the student's ability to read and use independent research to analyze a topic and to review arguments in order to produce an analytical essay that engages with a text and involves substantial research. All of these courses meet in small sections to permit instructors to hold conferences with students, schedule library-learning sessions, hold peer discussion groups, discuss student writing in class, and design assignments that encourage students to remain engaged in their work.

The New Brunswick Writing Program's Business and Technical Writing Program offers a series of courses that help students develop an ability to conduct research and use information to develop viable plans of action, skills that are essential to success in the information and technology economy. Courses may be taken for research writing credit, elective credit, and credit toward writing certificates. Students are required to develop, research, and revise an independent project. Courses include Scientific and Technical Writing, Writing for Business and Professions, Writing for Biology, Writing Grant Proposals, Writing for Engineers, Science Writing, and Writing as a Naturalist. Newark, as noted above, has completely revised its Writing Program: it is now a stand-alone unit that focuses on Writing Across the Curriculum. (See Section VII for more information about the Writing Program in Newark.)

Camden also has a strong Writing Program that helps to support the writing requirement of the general education curriculum. Students must take 12 credits of "language skills," including six in English composition, three in a foreign language at the 102 level or higher, and three credits of a writing intensive course.

LIBRARY SUPPORT

Educational offerings for students at Rutgers are significantly enhanced by library services that support instruction and educational programs. The Rutgers University Libraries promote the use of information and learning resources and services accessible through its website, including point-of-need assistance for selecting and using appropriate resources and services. (For a complete listing of these features, see the [Rutgers University Libraries Report](#).)

Librarians collaborate closely with faculty to provide customized face-to-face synchronous library research instruction to help integrate information literacy into a course or curriculum and develop class- or curriculum-specific materials. From 2003–2006, librarians provided an average of 995 library research instruction class sessions, reaching an average of 21,155 individuals per year. Each of the major libraries in New Brunswick and their branches (Alexander, Douglass, Kilmer, Science and Medicine), the Dana Library in Newark, and the Robeson Library in Camden has a program coordinator to facilitate this instruction. Collaborations in New Brunswick have involved the Department of English Writing Program and the Douglass mission course, *Shaping a Life*. In Newark, Dana Library has a long-standing collaboration with the Academic Foundations Center's Summer Program, which teaches at-risk students the basics of library use and research using general web resources. In Camden, the Robeson Library incorporates sequential library research instruction sessions into the English general education courses. Librarians also collaborate with faculty on digital projects that make information accessible to students in specific courses through the use of such specialized resources as the English Advice Manuals Online at Rutgers (E-AMOR), Early English Books Online (EEOB), and *Italy's People*.

The libraries' leadership in issues related to instructional literacy has been demonstrated in a number of initiatives, including the following:

- Its report, *A Learning Framework for Information Literacy and Library Instruction Programs at Rutgers University Libraries* (August 2003), and its recommendations for "Information Literacy Competencies at Rutgers," outlined the standards,

performance indicators, and learning outcomes for library research instruction and information literacy at Rutgers. This report led to a symposium in May 2004 that sought to identify issues most applicable to the first two years of undergraduate education; subsequently, a faculty and library staff literacy advisory group was formed to discuss library information literacy initiatives.

- The online information literacy tutorial for undergraduates, Searchpath, was released in spring 2005, to teach students basic library and research skills. This six-module program works as both a stand-alone tool and as a supplemental tool to library research instruction sessions. Preliminary quantitative and qualitative assessment of the tutorial, in the form of written feedback, module quiz results, and interviews with students, has been incorporated in the process from the start.
- All six major libraries have computer lab classrooms equipped with an instructor PC with NetOps classroom control software as well as projection equipment for providing library research instruction sections. Wireless laptops are available across the libraries to permit research sessions in other facilities across the campuses.
- Approximately 313 public access computers are available for general information use across the libraries.
- Videoconference equipment is available in Alexander, Douglass, and Kilmer in New Brunswick; Dana in Newark; and Robeson in Camden.

By remaining central players in the national conversation on information literacy through involvement in the Association of College and Research Libraries and other major organizations, and by working closely with Rutgers faculty and students in identifying needs and opportunities, the libraries have been able to develop programs and initiatives, based on best practices across the country, that enhance the educational offerings across the three campuses. (For more information on the Rutgers University Libraries, see Section II.)

APPLYING INFORMATION TECHNOLOGY TO EDUCATION

The overarching educational philosophy exemplified in the learning goals of information literacy and technological innovation requires that information technology serve as a critical element of undergraduate instruction. The University's Office of Information Technology (OIRT) provides coordination for use of information technology throughout Rutgers in support of instruction and research. Smart classrooms, including internet connections, video projectors, and CD/DVD plays, etc., are distributed across all campuses and widely used in introductory courses that fulfill general education requirements. Lists of electronic classrooms are provided online for Camden, Newark, and New Brunswick.

Increased development and use of web-enhanced curricula span all campuses. One example of a strong, web-enhanced curriculum was developed by the Department of Sociology, Anthropology and Criminal Justice in Camden, which requires all graduates to complete their studies with strong computer and internet-based skills. Use of this web-enhanced curriculum provides resources for student research and group work and facilitates communication among students and faculty in specific courses by providing online opportunities for discussion, questions, assignments, readings, etc.

In line with national trends, communication within and outside of the classroom continues to grow. Email has been adopted widely as a supplemental instructional device. The Office of Instructional and Research Technology now provides class mailing lists. Increasingly, lectures are being podcast, and many introductory courses use personal response systems, or clickers, which

enable interaction among faculty and students in a large lecture setting. Jabber, the Rutgers Instant Messaging System, is an open-source service that provides secure, encrypted communication with others logged into the Rutgers central IM server.

Course management systems are widely used across all three campuses; Blackboard, eCompanion, eCourse, and WebCT are the primary ones. A collaborative website, Digiclass, designed by Rutgers students, faculty, and instructors to complement the commercial course delivery systems provides an easy-to-update repository of instructional materials. OIRT conducted a survey of course management system usage in 2006.

In addition, Sakai is a major educational support technology for the New Brunswick Campus. A higher education community project to develop and support a new collaboration and learning environment, the Sakai system serves as a potential alternative to systems such as Blackboard and WebCT and is intended to facilitate collaboration in research, administration, and service, as well as in courses. No knowledge of html is necessary and, because it is web-based, it can use any operating system (i.e., Mac or PC) and be accessed at any time. OIRT conducted a survey of Sakai usage in 2005. See Section IV for additional details on the extent of usage and the increase in course management systems and information technology since the periodic review and the last reaccreditation visit.

For each of the past three years, the university has committed approximately \$500,000 to help restore some of the “smart” classrooms and upgrade others. These funds are in addition to the university’s \$15 million commitment to upgrade all classrooms to make them technologically “smart” and to refurbish all classrooms with improved lighting, seating, and other technical features. That investment, which will involve a major renovation of classrooms on the university’s three campuses, is derived from recommendations in the TUE report. The renovation project will be conducted over a period of three to five years, with most of the construction scheduled during the summer breaks. A classroom renovation committee made up of faculty, students, and staff will set priorities, select specific classrooms for renovation, and establish a standard for future classroom design.

Equally important as the use of information technology in the classroom is its usage in reference materials in the university libraries. Although librarians conduct some library research sessions in labs and classrooms across the campuses, the majority of their programs take place in the libraries’ instructional rooms, so the statistics for library research instruction sessions roughly reflect the usage of these rooms. The Rutgers University Libraries Report for the Middle States Reaccreditation Self-Study provides usage tables that detail the striking increase in the libraries database usage over the last several years. What and how use is counted varies among the databases depending on the technology used. Usage of the libraries’ website is captured automatically monthly, daily, and hourly; is graphed; and lists the top 10 pages used. Additional usage statistics are available for digital services such as Ask a Librarian, electronic reserves, and intralibrary and interlibrary loan.

A compilation of materials describing information technology support details how the university is meeting the ongoing challenges to the smooth integration of rapidly developing new technologies for educational instruction. The report includes a discussion of progress, challenges, opportunities, and short- and long-term plans.

SUPPORT FOR ACHIEVING LEARNING GOALS

Rutgers is a large and diverse university, welcoming and educating thousands of students from communities throughout New Jersey, the U.S. and abroad. In order to enhance the learning experiences of students with varying levels of preparation in mathematics, sciences, and language arts, Rutgers has developed a set of learning centers across its campuses. These centers include:

affairs offices of corporations, public interest groups, state associations, political campaigns, and lobbying firms.

The SAS Department of History is closely associated with several research programs, including the Thomas A. Edison Papers Project, the Rutgers Oral History Archives of World War II, and the Elizabeth Cady Stanton and Susan B. Anthony Papers Project. The Edison Project is a comprehensive 20-year study of the famous inventor's personal research materials. The Oral History Archives is an alumni-funded project that records the life stories of Rutgers alumni who lived through the WWII era or who are war veterans. The Stanton and Anthony Papers Project is publishing six volumes of writings of the two leading figures of the women's suffrage movement. All of these projects have enriched the history curriculum at Rutgers. Undergraduates may earn credits as they serve as interns on any of these projects.

Another example is provided by the Center for Discrete Mathematics and Computer Science (DIMACS), with National Science Foundation sponsorship. DIMACS has offered a Research Experiences for Undergraduates (REU) program since 1992. There are now four associated REU programs: the DIMACS REU program offers projects mentored by DIMACS members; the DIMACS/DIMATIA REU program offers projects mentored by DIMACS members and is extended by two weeks to include time spent at the sister Center for Discrete Mathematics and Theoretical Informatics and Applications (DIMATIA) site at Charles University in Prague, Czech Republic; the Department of Mathematics Program offers projects mentored by math department faculty; and the Homeland Security Center for Dynamic Data Analysis (DyDAn) REU program offers projects related to homeland security mentored by DyDAn researchers.

Science laboratories provide another type of research opportunity. Students work closely with a faculty member in a lab in challenging and demanding situations in which they learn how scientific research is conducted and what it means to be a scholar and independent researcher. For example, an undergraduate in the Department of Physics in New Brunswick recently participated in a project in the Rutgers-led Center of Excellence for Radioactive Ion Beam Studies for Stewardship Science, a consortium of university and other laboratories. Based at Oak Ridge National Laboratory for a summer, he helped to test prototype detectors for a new array of silicon detectors for nuclear physics experiments with radioactive beams. A student in the School of Engineering's Slade Scholars program is working in a nanomaterial self-assembly lab where he is creating 2-D self-assembling arrays of nanocrystals and nanopolymers using a fluid forming process. Another student participated in research with a faculty member who is a member of the National Academy of Sciences and spent the summer of 2007 in Juneau, Alaska, working on a watershed monitoring project. This student also received a Goldwater Fellowship this year, one of a number of undergraduates at Rutgers who successfully competed for national awards such as the Fulbright and Goldwater. Given that a well-designed research proposal is a central element of these highly competitive national award applications, it is clear that students' varied research experiences are a major component in their ability to write nationally competitive applications.

ORAL AND WRITTEN COMMUNICATION

The general education curriculum also addresses undergraduate writing. In particular, oral and written communication skills are developed through the requirements in the Rutgers University Writing Programs.

In New Brunswick alone, the Writing Program provides instruction to more than 11,000 students annually. Students must fulfill the undergraduate writing requirement by passing or receiving credit for Expository Writing 101. Students must demonstrate a mastery of the literacy skills that reside at the core of higher education: critical reading and critical writing. Through careful testing and

See next page

RECOMMENDATIONS

1. Complete the development and approval of a New Brunswick core curriculum for all liberal arts students and the components of the core that are part of the curricula of the professional schools; continue to develop educational programs on all campuses that broaden students' educational opportunities.

Primary responsibility: Executive vice president for academic affairs

Assessment: Develop a portfolio of program evaluation and learning outcome measurement tools to document outcomes, monitor progress over time, and promote the use of outcomes information in planning and improvement efforts.

2. Promote and provide expanded opportunities and access for study abroad while developing new and strengthened academic initiatives in global and international studies.

Primary responsibility: Dean, Rutgers Study Abroad and provosts

Assessment: Monitor outcomes, including participation in study abroad programs; monitor approval and promotion of new majors, minors, and certificate programs in global and international studies.

3. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

Primary responsibility: University librarian, vice president of information technology, and vice president for continuous education and outreach

Assessment: Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.

WEBSITES REFERENCED IN SECTION III

Assessing Our Vision for Excellence – Volume 1

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/MSA-Accreditation-Vol-I.pdf>

Rutgers Dialogues: A Curriculum for Critical Awareness

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/1992uc1-2.pdf>

Transforming Undergraduate Education

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/TransformingUndergradEd-fullreport.pdf>

Transforming Undergraduate Education Website

http://ur.rutgers.edu/transform_ru/

**Report of the Committee on Assessment of Undergraduate Programs –
Faculty of Arts and Sciences 2005–2006**

<http://chemistry.rutgers.edu/uac/>

School of Arts and Sciences

<http://sas.rutgers.edu/>

Liberal Arts Distribution Requirements Report of Committee on Interim Core Curriculum for SAS

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/CCCFinalReport.pdf>

Bylaws of the School of Arts and Sciences –

Rutgers, The State University of New Jersey – Ratified: December 14, 2006

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/SAS-Bylaws.pdf>

SEBS – The Transition from Cook to SEBS

<http://sebs.rutgers.edu/about/transition.asp>

School of Environmental and Biological Sciences Policy Regarding Interim (2007–2009) Core Requirements

<http://sebs.rutgers.edu/academics/sebs-core-policy.pdf>

SEBS Core Curriculum Report

http://sebsintranet.rutgers.edu/faculty/sebs_core_curriculum_2007-12.pdf

Rutgers University Undergraduate Enrollment by Major

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/Undergrad-enroll-by-major.pdf>

Rutgers–New Brunswick/Piscataway Undergraduate 2005–2007 Catalog

http://catalogs.rutgers.edu/generated/nb-ug_0507/index.html

Rutgers University Learning Goals

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/LearningGoals.pdf>

Report on Degree Distribution Requirements

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/MiddleStatesUGdegreq-5.pdf>

Report on Certification of Distribution Requirements

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/UndergraduateDegreeVerificationRequirements.pdf>

Koobi Fora Field School

<http://www.rci.rutgers.edu/~kffs/>

The Rutgers University Libraries Report

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/MiddleStatesReportfromtheLibrariesWithCharts.pdf>

Rutgers Universities Libraries – Searchpath

<http://searchpath.libraries.rutgers.edu/>

Camden Computing Services – Smart Classrooms

<http://smartclassrooms.camden.rutgers.edu/locations.php>

Rutgers–Newark – Smart Classrooms

<http://oat.newark.rutgers.edu/smartclassinfo.html>

Rutgers–NB/Piscataway – Enhanced Classroom Support

<http://classrooms.rutgers.edu/>

Department of Sociology, Anthropology, and Criminal Justice - Web-Enhanced Curriculum

<http://sociology.camden.rutgers.edu/curriculum/index.htm>

Jabber

<http://jabber.rutgers.edu/>

Digiclass

<http://digiclass.rutgers.edu/index.html>

Data from Course Management System Survey

<http://oirt.rutgers.edu/docs/cmsdata.pdf>

Data from Sakai Survey

<http://oirt.rutgers.edu/docs/sakaisurvey.pdf>

Report of the Rutgers University Office of Information Technology

<http://oit.rutgers.edu/middlestates.html>

Rutgers–Camden Learning Center

<http://learn.camden.rutgers.edu/>

Rutgers–Newark Learning Center

<http://lc.newark.rutgers.edu/>

Rutgers–New Brunswick Learning Centers

<http://rlc.rutgers.edu/>

Math and Science Learning Center

<http://mslc.rutgers.edu/>

External Review History

http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/ExternalReviewHistoryasof2-16-07_000.pdf

Policy on Cluster Reviews

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/External-Review-2-14-06.pdf>

Committee on Academic Planning and Review Membership

http://academicaffairs.rutgers.edu/documents/CAPRMembership2007-20089-21-07--RevFinal_000.pdf

All-Funds Budgeting

<http://oirap.rutgers.edu/msa/Documents/AFBv3.pdf>

New Program Approval Process

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/NewProgramApproval.pdf>

New Degree Programs, 1997–1998 through 2006–2007

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/NewDegreePrograms1997-2007.pdf>

Dual and Joint Degree Programs

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/Dual-JointDegreePrograms.pdf>

Section IV

**RELATED
EDUCATIONAL
ACTIVITIES**

Standard 13

smaller enrollments than their on-campus counterparts. The limit on small class size in these offerings, despite financial incentives to create larger sections, speaks clearly to the emphasis academic units have placed on maintaining the quality of these learning experiences.

As with on-campus programs, off-campus programs may become nonviable over time, generally because of significantly declining enrollments. As the university phases out such offerings, careful planning ensures that every enrolled student has ample opportunity to take the courses needed for the completion of that degree program. This is consistent with university practice regarding discontinuation or suspension of any degree programs.

Student Services

Offices serving students in off-campus locations and online programs are keenly aware of the need for adequate advising, technology support, library, and other services, a need that is possibly even greater than for students who attend full-time programs on campus. Staff provide advising services by phone, email, and at the off-campus sites. All distance education programs provide extensive technical support to their students as well as orientation tutorials.

The Rutgers University Libraries play a key role in providing library services to off-campus and online students. The libraries developed and offer several online library tutorials, including Searchpath, an online library resources tutorial course on accessing electronic resources and conducting basic research and several other useful library online tutorials. The library also provides support to off-campus students through online log-ins for access to electronic resources, document delivery to library users' desktop computers, delivery of materials to dozens of locations throughout the state, and cooperative agreements for delivery to libraries in New Jersey, New York, and Pennsylvania.

PARTNERSHIPS FOR OFF-CAMPUS PROGRAMS

In 1998, the New Jersey Commission on Higher Education (NJCHE) published a study entitled, The Capacity of New Jersey's Higher Education System that documented an increasing need for higher education opportunities for the citizens of New Jersey. The commission recommended partnerships between four-year and two-year institutions as a means of addressing underserved areas of the state and burgeoning numbers of high school graduates who would seek a college education. The agency suggested that four-year colleges and universities could extend their resources effectively by developing upper division, baccalaureate degree-completion undergraduate programs for graduates of two-year institutions. The report recommended that programs be offered in areas of the state that had been underserved by higher education.

In response to this report, and on the basis of its own research on student needs, Rutgers has worked closely with community colleges to enhance educational opportunities. For example, Rutgers assisted in the establishment of NJ Transfer, an extensive online resource that helps community college students select lower division courses that will transfer to four-year institutions and that will fulfill requirements for particular majors. (See Section I for more information about the role of NJ Transfer in enhancing access to Rutgers.)

Formal partnerships with other higher education institutions are an even more direct means to bring Rutgers resources to the larger community. Such arrangements use joint facilities and, to some extent, shared resources to provide off-campus, credit programs to meet general education and high-demand workforce needs in areas underserved by four-year higher education institutions.

Rutgers is a founding partner of two successful centers in Monmouth County. The Rutgers–Brookdale Partnership at the Western Monmouth Higher Education Center is located on the Freehold

The table below provides an overview of the facilities and support services offered at the Freehold and Mays Landing sites.

TABLE 4.8. FACILITIES AND SUPPORT SERVICES: OFF-CAMPUS SITES IN FREEHOLD AND MAYS LANDING

	Western Monmouth Campus of Brookdale Community College in Freehold, NJ	Mays Landing Campus of Atlantic Cape Community College in Mays Landing, NJ
Facilities	Leased space in existing building	Temporary modular classrooms and offices
Classrooms	5 ADA-compliant rooms, including 2 "smart" rooms, 2 interactive TV rooms, 1 standard classroom; 1 computer lab, and additional classrooms on space available basis	3 ADA-compliant "smart" rooms plus additional classrooms on space available basis
Faculty	Tenured and adjunct professionals	Tenured and adjunct professionals
Student Services	<p>On-site academic advising and registration services</p> <p>Online access to Rutgers libraries plus document delivery service</p> <p>Online and phone access to Rutgers Financial Aid and eligibility for assistance</p> <p>Videoconferencing to enable EOF students to communicate with counselors</p> <p>eligibility for disabilities services</p> <p>On-site writing tutor for Rutgers courses and BCC tutors for lower division courses</p> <p>Online access to Rutgers Career Services</p> <p>On-site production of RU IDs</p> <p>On-site bookstore services</p>	<p>On-site academic advising and registration services</p> <p>Online access to Rutgers libraries plus document delivery service</p> <p>Online and phone access to Rutgers Financial Aid and eligibility for financial assistance</p> <p>Videoconferencing to enable EOF students to communicate with counselors</p> <p>eligibility for disabilities services</p> <p>On-site ACCC tutors</p> <p>Online access to Rutgers Career Services</p> <p>On-site production of RU IDs</p>
Administrative Staff	Full-time manager of academic programs and part-time secretarial assistant	Full-time manager of academic programs and part-time secretarial assistant
Offices	1 administrative office with 2 workstations, 3 faculty offices, and storage space	3 administrative offices, 4 workstations, equipment, and storage space

RECOMMENDATIONS

1. Continue to develop strategic partnerships that foster high quality programs for the educationally underserved residents of the state, including adult/nontraditional students.

Primary responsibility: Dean of University College Community, provosts

Assessment: Assess outcomes and progress in addressing needs of adult/nontraditional students, both on- and off-campus.

2. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

Primary responsibility: University librarian, vice president of information technology, and vice president for continuous education and outreach

Assessment: Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.

3. Building on existing strengths, develop new cooperative education programs that broaden experiential learning opportunities for undergraduate liberal arts and science and professional school students in Camden, Newark, and New Brunswick.

Primary responsibility: Executive vice president for academic affairs and provosts

Assessment: Monitor outcomes and progress on plans and goals.

4. Work with departments, programs and schools across the university to develop a portfolio of certificate programs for undergraduates and graduate students; develop mechanisms to fully inform the university community of these opportunities.

Primary responsibility: Executive vice president for academic affairs and provosts

Assessment: Monitor progress in developing new programs and track the effectiveness of communication efforts.

WEBSITES REFERENCED IN SECTION IV

TFNS Final Report

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/NTS-TaskForceFinalReport3-1-07.pdf>

Rutgers University Division of Continuous Education and Outreach

<http://ce1766.rutgers.edu/>

Off-Campus/ Distance Education Survey

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/SurveyReport9-10.pdf>

September 2007 Middle States Commission on Higher Education Statement of Accreditation Status

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/September2007MSCHE-Statement-of-Accreditation-Status-with-cover-page.pdf>

Searchpath, Libraries

<http://searchpath.libraries.rutgers.edu/>

Online Tutorials, Libraries

http://www.libraries.rutgers.edu/rul/lib_instruct/instruct_tutorials.shtml

The Capacity of New Jersey's Higher Education System

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/capweb.pdf>

Off-Campus and Distance/Distributed Learning Programs and Locations

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/DistanceEd-SummaryTable.pdf>

Blackboard Website

<http://blackboardinfo.newark.rutgers.edu/>

Sakai @ Rutgers

<https://sakai.rutgers.edu/portal>

RutgersOnline, Division of Continuous Education and Outreach

<http://www.rutgersonline.net/>

eCollege/eCompanion Course Management System

<https://ecompanion.rutgers.edu/>

Continuing Education Departments at Rutgers

<http://ce1766.rutgers.edu/departments.jsp>

NJAES en Español

<http://njaes.rutgers.edu/espanol/>

Cooperative Education Program at the School of Environmental and Biological Sciences

<http://sebs.rutgers.edu/co-op/>

Student Guide to Engineering Cooperative Education

http://careerservices.rutgers.edu/student_engcoop.html

Report by the Committee on Service Learning and Engaged Scholarship

<http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/CSLES-Report.pdf>

Thomas Edison State College, Mission and Purpose

<http://www.tesc.edu/aboutus/529.php>



Section V

USING THE RESEARCH AND
GRADUATE CONTEXT TO ENHANCE
UNDERGRADUATE EDUCATION

Standards 1, 11, and 13

RESEARCH OPPORTUNITIES FOR RUTGERS UNDERGRADUATE STUDENTS

As part of the restructuring of undergraduate education, Rutgers is focusing attention on increasing the number and visibility of the research opportunities it provides for undergraduate students. Summary information about levels of student participation, some examples of the types of programs available, and descriptions of the campuswide initiatives designed to increase participation are presented below.

REPORTS FROM DEPARTMENTS AND FACULTY ON UNDERGRADUATE RESEARCH INVOLVEMENT

To provide a universitywide picture of the extent of undergraduate research participation at Rutgers, 84 academic departments and programs were surveyed as part of the self-study process in January 2007: 14 in Camden, 14 in Newark, and 56 in New Brunswick. The survey questions and responses are summarized in the Departmental Learning Outcomes Assessment Survey and Summary of Results.

Almost all (86 percent) of the departments responding to the survey reported that they have undergraduate students engaged in independent research projects. In many of the departments (68 percent), these independent research projects serve as a basis for the students' departmental (57 percent) or college (68 percent) honors theses. The percentage of students engaged in independent research ranges from less than 10 percent in some humanities and social sciences departments to 100 percent in some science departments, where independent research is a requirement for completion of the major. More than half of the departments (57 percent) report that their undergraduate students are participating in grant-related research, with about one-fifth of these reporting funding from the National Science Foundation. Other sources of grant funding for undergraduate research are the National Institutes of Health, the U.S. Department of Agriculture, the U.S. Department of Defense, and in the recent past the Howard Hughes Medical Institute. These grant-funded efforts complement departmental and college funds supporting undergraduate research, such as the Aresty Research Center programs (see description below).

Librarians were also asked about their participation in research opportunities for undergraduates. Their involvement in assisting undergraduates with research projects is considerable: 67 percent report involvement with students in independent research studies, 48 percent in college honors theses, 41 percent in departmental honors theses, 30 percent help students in research assistantships, and 26 percent report work on grant-related activities (grant-funded and not funded), 19 percent report participation in collaborative research programs, and 19 percent report involvement in research experiences supervised by graduate students or postdoctoral students.

The Office of Institutional Research and Academic Planning conducted an earlier survey on undergraduate research participation during the summer of 2006. This survey was directed to faculty members; 120 responded. Despite the low response rate, the examples provided of research opportunities and the responses about how information is disseminated are useful. The survey revealed that the majority of faculty members identify students for research opportunities through word of mouth (76 percent) or through referrals from other faculty members (71 percent). Some opportunities, faculty reported, are offered for credit (36 percent), while some are paid (11 percent), and some offer both credit and pay (25 percent). Some opportunities offer credit and some form of

