

University of Puerto Rico at Mayagüez (UPRM)
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Plan for the Assessment of Overall Institutional Effectiveness

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Institutional Effectiveness Assessment Plan

Our Commitment: *We at the University of Puerto Rico – Mayagüez will regularly and continuously assess effectiveness in all operational units of the university, particularly as they relate to student learning, and this assessment process will lead to improvements in overall institutional effectiveness.*

1. Introduction

The University of Puerto Rico at Mayagüez (UPRM) intends to continually review the institution's effectiveness. UPRM recognizes that excellent institutions are self-reflective and continually seeking to improve. Institutional assessment at UPRM is guided by three (3) major components: the *Institutional Strategic Plan*, the *Plan for the Assessment of Overall Institutional Effectiveness*, and the *Institutional Plan for the Assessment of Student Learning*. UPRM aims to develop a comprehensive process that evaluates overall effectiveness in seven essential areas, capturing the range of educational offerings, services, and processes at UPRM, and touching on the Middle States Commission on Higher Education's (MSCHE) standards for accreditation (MSCHE, 2002a):

- institutional mission, goals, and objectives;
- planning, resource allocation, and institutional renewal processes;
- institutional resources;
- leadership and governance;
- administration;
- institutional integrity; and
- student learning outcomes.

The *Institutional Strategic Plan* outlines the institution's planning and improvement process in eight critical areas, which are institutionally unique but tied to the essential areas identified by MSCHE. The two assessment plans are designed for the continuous evaluation of these processes. The *Plan for the Assessment of Overall Institutional Effectiveness* constitutes the assessment plan for the critical areas of the strategic plan related to the first six MSCHE essential areas, while the *Institutional Plan for the Assessment of Student Learning* focuses specifically on the assessment of student learning outcomes.

The primary focus of this plan is to design programs and processes to assess effectiveness in the critical areas of the strategic plan related to the first six MSCHE essential areas noted above. In addition, the process includes periodic evaluation of the plan itself, to ensure that the plan remains effective and comprehensive. Although some of the processes and activities suggested in this plan are new, most are formalizations of existing procedures. The institutional effectiveness assessment program will evolve, as all university programs and services evolve. Thus, it is a "living plan." The end result will be an institution actively concerned not just with what it does, but with how well it does it – leading to continuous institutional improvement and self-renewal.

2. Purpose of the Plan

The purpose of an institutional assessment plan is to set out a process for the assessment of overall institutional effectiveness in key areas including teaching, research, student support services, aspects of institutional mission, and particular institutional goals (MSCHE, 2002b). Further, the plan should focus on how these components support and reinforce both student learning and the institution's mission and goals.

A more specific purpose of the UPRM plan for the assessment of institutional effectiveness is to foster the integration of strategic planning and assessment at the institutional and unit levels. The plan outlines efforts at the institutional level and provides guidelines for operational units of the institution to develop assessment plans *as part of* their respective strategic plans.

The institutional strategic plan identifies eight critical areas:

- leadership;
- students and alumni;
- academic affairs (curriculum, teaching, and learning);
- research, creative work, and graduate studies;
- community service and social scope;
- human resources;
- administration; and
- infrastructure.

In each critical area, specific strategic goals are identified (see Appendix D). Each dean, college, department, and division has developed or is in the process of developing a strategic plan in the critical areas relevant to the work of that unit. For each goal within a critical area, units must identify a strategic direction, specific tasks and activities, measures to monitor progress, responsible parties, and date/timeline. The assessment plan should be viewed as a layer of the strategic plan. In addition to identifying the process of assessment for specific aspects of the strategic plan, the unit must provide evidence that:

- The strategic plan adheres to the mission and goals of the unit;
- Faculty and administration collaborate in the development and implementation of the strategic plan and its assessment;
- Multiple types of measures are used to monitor progress, starting with existing practices;
- Assessment findings guide revisions of the strategic plan and inform resource allocation; and
- The goals, timeline, and resources required by the plan are realistic.

3. Applicability

This plan applies to all UPRM units that are required to develop a strategic plan by the Office of Institutional Research and Planning.

4. Institutional Mission and Goals

The mission of the UPR system has not been altered since 1966. “Given its function of serving the people of Puerto Rico, the primary mission of the University of Puerto Rico is to increase knowledge through the arts and sciences, and to contribute to the development and enjoyment of the ethical and aesthetic values of society.” (UPRM, 2001). Building on and extending the system mission, UPRM has developed its own unique mission statement.

“Within the philosophical framework established by the University of Puerto Rico Act, the Mayagüez campus directs its efforts towards the development of educated, cultured citizens, *capable of critical thinking*, and *professionally qualified in the fields of agricultural, social, and natural sciences, engineering, humanities and business administration*. They should be *able to contribute in an efficient manner to the cultural, social, and economic development of the Puerto Rican and international community*. This process is aimed at endowing our alumni with a *strong technical and professional background* and to instill a *strong commitment to Puerto Rico and our hemisphere*. Our alumni should have the necessary *skills and knowledge to participate effectively in the search for solutions to the problems facing us*, to *promote the enrichment of the arts and culture*, the *development and transfer of technology* as well as to *uphold the essential attitudes and values of a democratic society*.” (<http://www.uprm.edu/about/mision.html>)

To achieve this mission, UPRM has set forth nine primary goals (Cert. # 96-97-603):

- Have students become the central figures and “reason for being”
- Become an integral institution characterized by excellence in teaching, research, and service to the community
- Encourage an entrepreneurial spirit among students
- Internationalize the institution
- Strengthen research and development
- Promote complete computerization
- Evolve into an institution that is operationally agile, efficient, and auditable
- Encourage close collaboration with and provide ample service to the community
- Establish a master plan with a focus on infrastructure and physical equipment

The structure and scope of UPRM's *Institutional Strategic Plan* flows directly from its mission and goals. Assessment of institutional effectiveness is conceived as part of strategic planning, thus ensuring that assessment activities reflect the mission, goals, and objectives of the institution and its individual units.

As a more formal, participatory institution-wide planning process is implemented at UPRM, assessment experiences and results will help in adjusting and sharpening UPRM's mission and developing a more clearly defined and shared sense of direction. Thus, the mission statement and the assessment program at UPRM are interdependent – each more clearly defined and understood in light of the other. As UPRM moves forward, each will spur the university community to reflect on and reaffirm its institutional purpose and to commit to achieving institutional goals.

5. Relationships Among Institutional Plans

The *Institutional Strategic Plan* outlines the institution's planning and improvement process in eight critical areas, and the two assessment plans are designed for the continuous evaluation of these processes. Thus, the *Plan for the Assessment of Overall Institutional Effectiveness* and the *Institutional Plan for the Assessment of Student Learning* support the *Institutional Strategic Plan*. Specifically, the assessment plans ensure that the process of strategic planning at the institutional and unit levels is one of continuous improvement. Figure 1 presents a conceptual diagram of the relationships among the plans.

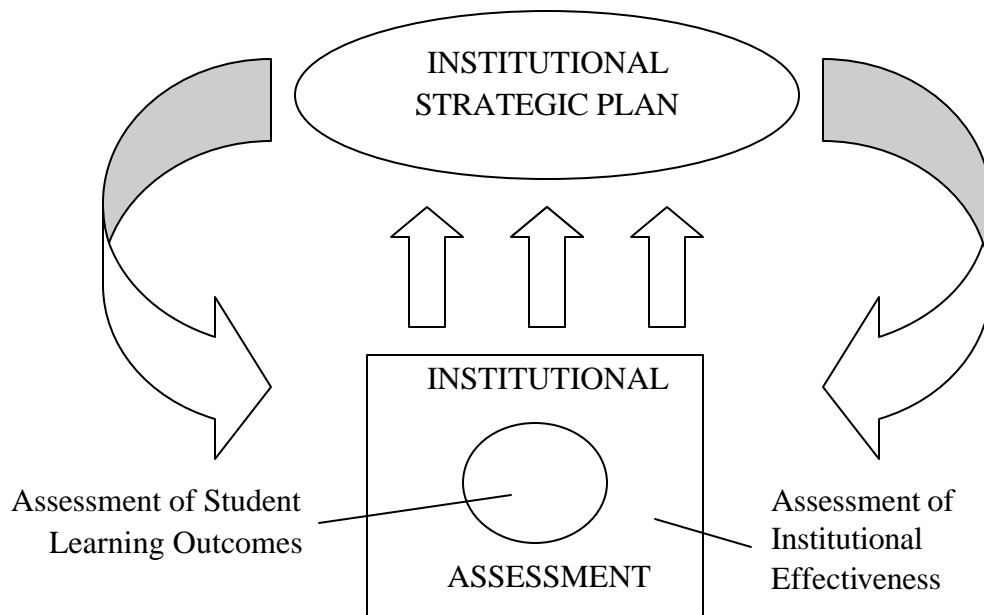


Figure 1. Conceptual diagram of strategic planning and assessment at UPRM.

The strategic planning process is supported by and feeds back to the assessment process, as shown by the arrows in the figure. Just as students are the heart of UPRM, student learning outcomes are at the core of institutional effectiveness.

6. Guiding Principles

A commitment to the assessment of institutional effectiveness requires a parallel commitment to ensuring its use in the improvement of programs and services. The following five principles serve to unify assessment practices at UPRM, while allowing for flexibility in approach for each unit. The principles emulate the five fundamental criteria of assessment planning identified by MSCHE (MSCHE, 1998).

- The mission, goals, and objectives of the institution (and the unit) serve as the foundation for assessment planning.
- Assessment tasks are shared – plans are developed and implemented with the support and collaboration of both faculty and administration.

- Assessment plans and processes utilize multiple measures, taking existing practices and requirements into consideration (e.g., external accreditation agencies) to avoid duplication of effort.
- Assessment is not an event or an outcome, but a process of continuous improvement where findings are used to inform planning and resource allocation.
- Assessment plans identify realistic (rather than idealistic) goals, timetables, and resources.

7. Assessment of Institutional Effectiveness at UPRM

Assessment of institutional effectiveness at UPRM occurs on both the institutional and unit levels. The Office of Institutional Research and Planning and the Continuous Improvement Education Initiative serve to develop and monitor efforts at the institutional level. In addition, several campus units collect data on key institutional indicators of interest. At the unit level, the assessment plan is developed as part of the strategic plan.

The background, major functions, plans and activities, and personnel for the institutional level offices are outlined in the sections below. The institutional indicators, an inventory of current assessment activities at UPRM, are presented in a tabular format. In the final section on assessment at the unit level, the strategic planning and assessment process at UPRM is described, including the alignment of this process with MSCHE standards.

i. Assessment at the Institutional Level

a. Office of Institutional Research and Planning

- **Background:**

Several administration changes have delayed the development of an institutional research (IR) office at UPRM. The first office of institutional research was opened in 1996 as part of the Dean of Academic Affairs office. The office was not assigned funding in 1997 and 1998 by subsequent administrations. In 1999, UPRM successfully applied for federal funding (Title V: Hispanic-Serving Institutions) to open an IR office. In 2001, the Office of Institutional Research and Planning (OIRP) was officially created, replacing the former Office of Planning.

- **Major functions:**

As part of the Title V grant proposal, the OIRP identified three major functional areas: facilitation of fiscal, institutional, and physical planning; coordination of institutional research, evaluation, and assessment; and administration of statistical and technical studies. As the office became established and operational, the functions were slightly modified to better reflect the role of the office. The OIRP has identified four major functions:

- Foster institutional strategic planning
- Promote and coordinate physical planning
- Promote institutional research
- Administrative duties

The functions of strategic planning and institutional research relate most directly to the assessment of institutional effectiveness. The linking of planning and research under one office place the OIRP in a key position to lead and support institutional assessment at UPRM.

- **Plans and activities:**

The OIRP has developed an organizational matrix to outline its major functions, including activities, duties, and responsible personnel. The strategic planning and institutional research sections of the matrix are reproduced in Tables 1 and 2 to outline the plans and activities of the office for the next several years. Some of the activities are currently underway, and others are planned as appropriate office personnel are hired.

Table 1. OIRP Function: Foster institutional strategic planning

Activities	Related duties
1. Develop Institutional Strategic Plan in accordance with institutional goals, joining development of physical and fiscal resources with teaching, research, creative work, and community service	Provide methods and support for development of strategic plans at institutional and unit levels
	Prepare, revise, and implement strategic plan as basis for development of unit plans
	Participate in institutional committees for development of the systemic (UPR) strategic plan
2. Periodic revision of development plan to determine short, medium, and long term fiscal impact	Analyze and coordinate plans of the colleges and deans' offices with their goals, program demands, and employment market demands
	Analyze and coordinate necessary building and infrastructure development with Department of Buildings and Grounds, in accordance with student population trends and academic program development
	Analyze and coordinate necessary budgets with the Budget Office in accordance with projected development
	Develop a structural development plan in accordance with identified needs and available funding
3. Develop Annual Report in accordance with institutional goals and achievements of institutional units	Review format and obtain Chancellor's approval
	Solicit necessary information from campus units
	Prepare an Annual Report utilizing reports submitted by colleges and deans' offices, OIRP statistics, and information provided by Public Relations Office
4. Develop and implement faculty evaluation system	Review existing evaluation methods
	Provide support to colleges in the development of effective evaluation methods
	Develop measures to establish a evaluation system according to goals set by each program, aligned with goals of respective colleges
5. Develop mechanisms of assessment for academic and administrative processes	Provide support to departments, colleges, Senate, and Administration Board to facilitate development and systematic review of academic programs
	Provide support to colleges and departments to develop measures to evaluate effectiveness in student learning, teaching, and administration
	Facilitate development of self-evaluation and goal-setting
6. Other related activities	Coordinate and attend progress evaluation and orientation meetings
	Coordinate seminars on strategic planning and assessment
	Prepare periodic progress reports to UPRM administration on strategic planning and assessment activities
	Represent institution in activities related to strategic planning and assessment

Table 2. OIRP Function: Promote institutional research

Activities	Related Duties
1. Develop system to measure academic and administrative aspects necessary for the optimum performance of institutional functions	Identify measures and indicators needed to carry out statistical studies
	Design instruments for data collection
	Select statistical analysis techniques
	Design plan for institutional studies
	Compile and analyze institutional data
	Validate statistical information solicited from UPRM units
	Coordinate compilation and analysis of statistical data with UPRM units
	Prepare tables, graphs, and diagrams of the statistical results
	Make recommendations to administration and academic units based on study results
2. Support the units to promote institutional research	Carry out statistical studies on request
	Prepare institutional statistics in key areas
	Integrate internal information flow, and promote the exchange of statistical information and projections with other UPR campuses and the UPR President's Office to facilitate decision making
	Provide support to academic units with their respective accreditation processes
	Provide support and advice to academic community on questionnaire design for evaluation of academic processes and services
	Encourage UPRM units to carry out their own statistical studies using data available in the OIRP
3. Develop an information system for planning and assessment of results	Evaluate key sources of information in existing computer systems and identify relevant data for institutional research that can be extracted from traditional (paper) systems
	Determine duplication in collection, storage, processing, and administration of information; recommend and design alternatives for consolidation
	Provide computerized mechanisms to process information and produce reports as needed
	Design databases of student information, faculty information, administrative and support personnel, research activities, and facilities and equipment.
4. Disseminate of institutional data and relevant findings	Provide data on request to President, Chancellor, and UPRM units to facilitate decision making
	Provide data to accrediting agencies and other state and federal organizations to present evidence of program effectiveness
	Provide data to support proposals for funding or collaboration with industry, state and federal agencies, and other universities
	Provide data to other federal and state agencies in compliance with rules and regulations
	Prepare and distribute Statistical Bulletin to UPRM units
5. Other related duties	Promote active participation of university community in institutional research activities
	Represent institution in activities related to institutional research
	Participate in committees related to institutional research
	Prepare reports of study results and proposals to President, Chancellor, and as required by other entities

- **Personnel:**

Currently, the office is staffed by a Director, Associate Director, Assistant Researcher (Database Administrator), and an Administrative Secretary. A Statistics Official from the Office of Academic Affairs also works with OIRP. In addition, two coordinators are employed part-time: Coordinator of Institutional Research and Coordinator of Strategic Planning and Assessment.

The proposed organizational chart includes two additional part-time coordinator positions (Coordinator of Academic and Campus Affairs and Coordinator of Design and Construction Management), as well as an Administrative Officer, a Facilities Officer, and an Executive Secretary. Further, it is proposed that the Coordinator of Institutional Research would have the assistance of an Assistant Researcher and a full-time Statistics Official in addition to the current Database Administrator. The proposed organizational chart is shown in Appendix A.

b. Continuous Improvement Educational Initiative

- **Background:**

The Continuous Improvement Educational Initiative (CIEI) is a campus-wide effort. UPRM's Chancellor, Dr. Jorge Vélez Arocho, initiated the CIEI in early 2003 with the vision to promote an outcomes-based academic environment at UPRM. This office was designed to be an institutional-level initiative modeled after the System for the Evaluation of Education (SEED) Office in the College of Engineering.

- **Major functions :**

The main purpose of the initiative is to design and implement a continuous improvement educational process for the campus. One important result of this process is to be prepared for the MSCHE reaccreditation visit in 2005.

- **Plans and activities:**

The activities of the UPRM-MSCHE Institutional Steering Team (headed by the Coordinator of CIEI) and its 11 task forces have served as the springboard for the activities of the CIEI. MSCHE (2002a) identifies 14 standards for accreditation encompassing two main areas: institutional context (Standards 1-7) and educational effectiveness (Standards 8-14). Eleven task forces were created to design the self-study process for the 14 standards (i.e., three of the task forces are responsible for two standards each). Independently, each task force developed charge questions to assess its corresponding MSCHE standard(s), naming possible sources of data at the institution for each question.

The Institutional Steering Team compiled the 14 sets of questions, and identified 39 subunits within the possible sources of data (see Appendix B). A questionnaire for each subunit was developed through an iterative process. First, it was determined which *sets of charge questions* applied to each subunit, thus identifying the different standards applicable to that subunit. This developed a draft questionnaire for each subunit. Next, a closer look at each questionnaire helped determine which *specific charge questions* from the set applied to that subunit. The result of this process is 39 individualized questionnaires, tailored to the subunit to which they are targeted.

The questionnaires will be administered for the first time in September 2003, and will be periodically administered thereafter. Currently, the questionnaires incorporate both open- and closed-ended questions, although no response options are provided. The

questionnaires will be revised with each iteration to reflect changes and progress in the subunit. Additional assessment tools and measures will be developed as needed to assess institutional effectiveness in collaboration with the Office of Institutional Research and Planning. In this manner, the CIEI expects to establish a collaborative working relationship with each subunit in an effort to lead and manage continuous improvement at all institutional levels.

- **Personnel:**

The CIEI is a branch of the Chancellor's office, and is staffed by a part-time coordinator and a full-time secretary.

- c. **Institutional Indicators**

The Committee for the Coordination of Database Standards (formerly the Institutional Research and Management Information Systems Steering Committees) has developed a matrix of indicators currently collected by different campus offices in five areas: students, faculty, staff, physical equipment, and regulations. These data will be computerized (if necessary), compiled, and centralized in databases by the Office of Institutional Planning and Research over the next several years. The matrix of the indicators, including the office that collects the data and the level of computerization, is provided in Appendix C.

- ii. **Assessment at the Unit Level**

- a. **Strategic Planning and Assessment Process**

Assessment of effectiveness at the unit level is envisioned as a part of the strategic planning process. Eight critical areas (and corresponding goals) for the institution have been identified in the Institutional Strategic Plan. Each unit is required to develop their own strategic plan, focusing on the critical areas and goals that apply to the work of that unit.

The process for developing the strategic plan is aided by a template (see Appendix D). For each goal, the following must be identified: strategies, tactics and activities, measures or indicators of success, responsible parties, and date/timeline. The strategy indicates the general direction, while the tactics indicate the specific activities and projects that will help the unit move in that direction. Finally, the success indicators are measures that allow the unit to monitor progress toward their strategic directions. Thus, one layer of assessment is built directly into strategic planning.

A two-pronged approach will be used to add a second layer of assessment to strategic planning. First, units will be encouraged to add their own goals and objectives, and respective success indicators, to their strategic plan. An example template for developing unit goals, objectives, and measures (from Bucknell University Institutional Research Office) is shown in Appendix D. Second, units will be required to provide evidence that the assessment elements of their strategic plans meet five criteria:

- Foundation in institutional and unit mission and goals;
- Support and collaboration of both faculty and administration;
- Utilization of multiple measures, taking existing practices and requirements into consideration (e.g., external accreditation agencies) to avoid duplication of effort;
- Employment of findings to inform planning and resource allocation; and
- Identification of realistic goals, timetables, and resources.

The five criteria emulate the MSCHE assessment planning guidelines, and will be ones upon which UPRM will be evaluated in future accreditation visits. The strategic planning and assessment process is further linked to MSCHE guidelines. While the eight critical areas of strategic planning at UPRM were designed with the unique needs of the institution in mind, these areas also deliberately addressed all standards related to institutional context for Middle States accreditation. Table 3 shows the alignment of UPRM critical areas, UPRM institutional goals, and MSCHE essential areas.

The alignment of the institutional strategic planning and assessment process with institutional goals and the essential areas for accreditation ensures that existing assessment practices can be used and improved, rather than developing new processes for accreditation requirements. The institutionalization of this strategic planning and assessment process ensures that human and fiscal resources can be devoted to continuous assessment and improvement.

Table 3. Alignment of UPRM strategic plan, institutional goals, and MSCHE requirements.

UPRM Critical Areas from Strategic Plan	UPRM Institutional Goals	MSCHE Essential Areas
1. Leadership	<ul style="list-style-type: none"> • Internationalize the institution • Become an <u>integral institution</u> characterized by excellence in teaching, research, and service to the community 	<ul style="list-style-type: none"> • Leadership and governance • Institutional resources • Institutional integrity • Planning, resource allocation, and institutional renewal
2. Students/Alumni	<ul style="list-style-type: none"> • Have students become the central figures and “reason for being” 	<ul style="list-style-type: none"> • Student learning • Achievement of mission and goals
3. Academic affairs (curriculum, teaching, learning)	<ul style="list-style-type: none"> • Encourage an entrepreneurial spirit among students • Become an integral institution characterized by excellence in <u>teaching</u>, research, and service to the community 	<ul style="list-style-type: none"> • Student learning • Achievement of mission and goals
4. Research, creative work, and graduate studies	<ul style="list-style-type: none"> • Strengthen research and development • Become an integral institution characterized by excellence in <u>teaching</u>, <u>research</u>, and service to the community 	<ul style="list-style-type: none"> • Achievement of mission and goals
5. Community service and social scope	<ul style="list-style-type: none"> • Encourage close collaboration with and provide ample service to the community • Become an integral institution characterized by excellence in teaching, research, and <u>service to the community</u> 	<ul style="list-style-type: none"> • Achievement of mission and goals
6. Human resources	<ul style="list-style-type: none"> • Evolve into an institution that is operationally agile, efficient, and auditable 	<ul style="list-style-type: none"> • Institutional integrity • Institutional resources
7. Administration	<ul style="list-style-type: none"> • Evolve into an institution that is operationally agile, efficient, and auditable 	<ul style="list-style-type: none"> • Administrative structures and services • Institutional integrity • Planning, resource allocation, and institutional renewal
8. Infrastructure	<ul style="list-style-type: none"> • Promote complete computerization • Establish a master plan with a focus on infrastructure and physical equipment 	<ul style="list-style-type: none"> • Planning, resource allocation, and institutional renewal • Institutional resources • Achievement of mission and goals

b. Arts & Sciences – Associate Dean for Assessment and Information Systems

- **Background:**

The Office of the Associate Dean for Assessment and Information Systems was created in July 2003 to lead and facilitate assessment activities in the College of Arts and Sciences.

- **Major functions:**

The office lists four major functions: training and consulting, assessment, information systems and internet-enhanced education, and dissemination.

- **Plans and activities:**

Plans and activities in each of the major function areas are listed below.

- Training/Consulting
 - Provide members of our university community with individual consulting and technical support regarding assessment
 - Offer training activities for professors of CAS on assessment techniques, methods, and strategies; information systems; and technology-assisted teaching
 - Coordinate the CAS Office for the Continuous Improvement of Learning
- Assessment
 - Evaluate assessment activities in the CAS
 - Create and manage a database of assessment resources and instruments, and make them available for the members of the university community
 - Identify the needs of the faculty with regards to teaching-related technologies
 - Coordinate accreditation-related visits from Middle States
 - Evaluate information systems infrastructure
- Information Systems/Internet Enhanced Education
 - Assist in the development of alternate means of instruction, such as distance learning, internet enhanced education, and computer assisted teaching
 - Develop a web portal about assessment and information systems
- Dissemination
 - Promote and support assessment activities at all levels, including classrooms, programs of study, individual departments, and offices
 - Promote dialogue, interaction, and sharing of information regarding assessment, among the different members of our university community, as well as with other local and international institutions and universities
 - Promote activities, studies, and publication of assessment initiatives through electronic and printed newsletters, annual workshops, and other electronic means

- **Personnel:**

The office is led by the Associate Dean for Assessment and Information Systems, and is staffed by a full-time secretary. A CAS faculty member has been assigned to assist the Associate Dean with assessment-related activities.

c. Arts & Sciences – Committee on Undergraduate Education

- **Background:**

Since the early 1990s, ad-hoc committees have met to study required core courses in the CAS. A permanent College committee with a widened scope has recently been established – the Committee on Undergraduate Education (CUE). The committee is guided by the vision that general education is the foundation of professional development at the undergraduate level and should incorporate the values of responsibility, respect, open dialogue, and academic excellence.

- **Major functions:**

The CUE examines undergraduate education and general education as a basis from which to foster continuous assessment and, above all, continuous improvement. The committee's mission outlines its major functions:

To review, analyze, and assess in a comprehensive manner the standards of undergraduate education, particularly those relating to general education; formulate conclusions about the extent to which they respond to the profile of the graduates we seek to form; and make pertinent recommendations.

- **Plans and activities:**

The CUE has recently been established and will meet regularly. The major activity of the committee is to establish the standards for undergraduate academic development in the CAS.

- **Personnel:**

The committee is composed of representatives of the departments of the CAS, the College's Associate Dean for Student Affairs, the College's Associate Dean for Assessment and Information Systems, and a student representative.

d. Engineering - System for the Evaluation of Education (SEED) Office

- **Background:**

In 2000, the College of Engineering (CE) established the System for Evaluation of Education (SEED) office as a mechanism for continuous improvement. The overarching purpose of the initiative is to facilitate continuous assessment and evaluation of academic programs and student learning, based in the CE's strategic goals, the UPRM institutional mission, and compliance with Accreditation Board of Engineering and Technology (ABET) EC 2000 accreditation criteria. The SEED office acts to collaborate and assist faculty, department heads, staff and students in the design and implementation of program and student learning outcomes assessment strategies in the CE, and works in close collaboration with the Office of Institutional Planning and Research.

- **Major functions :**

The principal goals of the SEED Office are:

- Establish and facilitate a strategy for continuous evaluation of engineering programs and student learning outcomes assessment
- Coordinate with engineering departments and accreditation committees (ABET 2000 and MSCHE) the CE's activities regarding accreditation processes, including their implementation strategies.
- Assess outcomes of the Dean's Strategic Plan
- Become the CE's repository of:
 - Assessment strategies
 - Assessment instruments
 - Assessment results and reports
- Coordinate professional development activities concerning evaluation and assessment

- Disseminate assessment results by electronic means to stakeholders and decision-makers for their information and decision-making
- **Plans and activities:**

The SEED concept has been incorporated into each of the engineering departments, and as a result, each department has its own SEED Office. For the past 3 years (2000-2002), the activities of the college and department level offices were closely linked to ABET accreditation processes. After a successful visit from the ABET accreditation team in late 2002, after which all programs were granted continued accreditation, the SEED Office is now focused on developing an ongoing assessment plan for the College of Engineering. ABET accreditation standards are focused primarily on student learning outcomes, and thus, the college and the departments have working plans in place for the assessment of student learning. The next goal is to formalize a broader assessment process, to encompass the range of activities in the college and to more accurately assess overall effectiveness. With this goal in mind, a temporary Assistant Researcher has been employed to assist the SEED Director and the department-level ABET committees in the development of the college effectiveness assessment plan.
- **Personnel:**

The SEED office is a sub-office of the Associate Dean of Engineering for Academic Affairs, and is staffed by a part-time director, a full-time administrative assistant, and a full-time statistician/programmer. For the 2003-2004 academic year, the office will also employ an Assistant Researcher.

e. Accreditation-related Activities

At the college and department levels across the university, various units are involved in assessment related to accreditation processes. The units and corresponding accrediting bodies are listed below.

- College of Engineering: Accreditation Board of Engineering and Technology (ABET)
- Department of Chemistry: American Chemical Society (ACS)
- Department of Nursing: National League of Nursing (NLN)

8. Assessment Process and Methods

Assessment of institutional effectiveness requires that UPRM's faculty, administration, and governing structures demonstrate skill in raising questions about institutional effectiveness, seeking answers, and improving procedures. This assessment plan makes use of existing data and information; namely, our institutional indicators; in addition to proposing new or improved procedures; including strategic planning, continuous improvement, and institutional research initiatives to assist in the inquiry-improvement process. The vision of this assessment plan is that assessment process and methods at UPRM will be characterized by three descriptors: conceptual assessment cycle, decentralized process, and institution-wide assessment.

a. Conceptual Assessment Cycle

The assessment process at UPRM is cyclical and continuous, as conceptually reflected in Figure 2. These assessments cycles are repeated after changes have been implemented. The time for completion of a cycle up to implementation, or the “closing of the loop” as it is commonly referred to, may be different for different assessment levels.

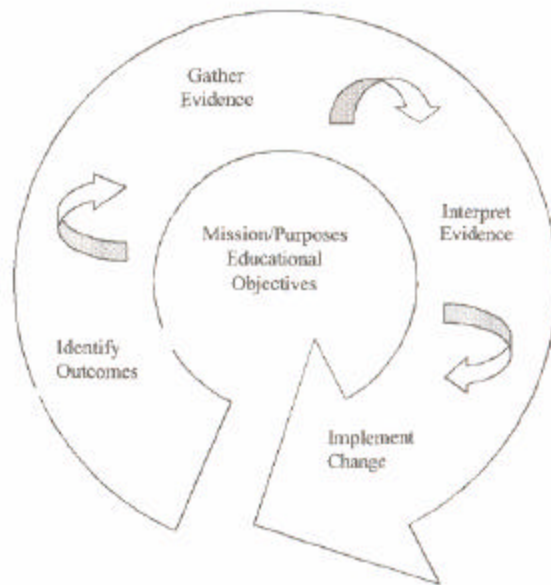


Figure 2. *A conceptual assessment cycle or loop.*

b. Decentralized Process

The assessment of institutional effectiveness at UPRM is a decentralized process by which personnel in each unit identify key strategies and tactics, determine how outcomes will be measured, carry out assessment activities, analyze results, and use those results in strategic planning to increase effectiveness. The assessment plan is not necessarily a separate document but rather a “layer” added to the existing and evolving strategic plan.

c. Institution-wide Assessment

In addition to the assessment programs focused on assessment in individual units, UPRM is concerned with the extent to which the institution is meeting its broader goals. The Office of Institutional Research and Planning and the Continuous Improvement Education Initiative act to lead, promote, and facilitate assessment activities at UPRM. These two offices will work in tandem to develop a culture of continuous improvement on our campus.

9. Timeline

a. General

This assessment plan has been officially adopted by UPRM and is in various stages of implementation across campus. Many of the activities listed by the Office of Institutional Research and Planning are ongoing, yearly activities, and in addition, the institutional indicators are also gathered annually by their respective offices. Most of the colleges and dean's offices, as well as the Research and Development Center, have already developed strategic plans.

The institutional plan will be reviewed periodically by the Chancellor and the Office of Institutional Research and Planning. Individual units will plan the execution of assessment activities, and results and progress will be reported at regular intervals.

b. Summary timetable for development and implementation

This timeline is applicable to ALL units who are required to develop strategic plans - for formal continuation and maintenance if such plans are already implemented and for timely and immediate compliance if such plans are not implemented. Individual units can set their own internal assessment timelines as long as they comply with the following institutional deadlines.

Spring 2003

- New director of the Office of Continuous Improvement Education Initiative (CIEI) began work in January
- Members of the UPRM-MSCHE steering team met for the first time in mid-January
- Process for securing office space, equipment, and staff began
- Institutional accreditation and assessment web page created (www.uprm.edu/msa)
- Initial budget requests made
- Structure of general meetings agreed upon
- Assessment Task Force Members identified and notified

Summer 2003

- Plan for the Assessment of Overall Institutional Effectiveness drafted based on Institutional Strategic Plan and Draft Institutional Plan for the Assessment of Student Learning
- Plan reviewed, analyzed, discussed, and unanimously approved by UPRM-MSCHE Steering Team and by the new Office of CIEI
- Plan submitted for Chancellor's review and subsequent presentation to the UPRM Administrative Board and Academic Senate for approval
- Begin presentation of plan to all units for comment/consensus and for the immediate initiation of their own plan development processes

- College of Arts and Sciences opens office of Associate Dean of Assessment and Information Systems
- College of Arts and Sciences Committee on Undergraduate Education is formalized to study and assess undergraduate education and general education

Fall 2003

- Begin the assessment of current status of academic departments and units by means of the 38 questionnaires developed by CIEI and the UPRM-MSCHE steering team
- Determine needs across UPRM and the ways in which the OIRP and CIEI may be of assistance
- Units complete their strategic plans and submit them to OIRP
- Each unit develops assessment plans by a participatory process and consensus
- Each unit begins to conduct and document assessment related to strategic plan and unit goals and objectives
- UPRM implements process for orientation, training, and consultation related to assessment planning
- UPRM and individual units encourage and elicit more participation from faculty, staff, and students
- Distinguish and define roles and responsibilities of the Steering Committee, Task Forces, OIRP, CIEI, and key personnel involved in outcomes assessments

Winter 2003-2004 (by mid-December 2003)

- Complete the assessment of current status of academic departments and units by means of the 38 questionnaires developed by CIEI and the UPRM-MSCHE steering team
- Continue process for orientation, training, and consultation

Spring & Summer 2004

- Task Forces consolidate and analyze responses to the 38 questionnaires and draft a Self-Study Report
- Office of CIEI assesses questionnaire implementation process to this date, reviews plans and procedures, and adjusts them, if appropriate
- Units complete annual reporting requirements as per university guidelines, including results and modifications made during the strategic planning and assessment process

Fall & Winter 2004

- Units continue implementation of strategic planning and assessment processes, results and decisions documented, evidence maintained, and plans adjusted, if appropriate
- Strategic and assessment plans and processes fully in place and implemented throughout all units of UPRM, and set for permanent continuation

Spring & Summer 2005

- Units repeat full assessment processes/cycles of previous two semesters.
- All UPRM offices/units involved and concerned with assessment of institutional effectiveness organize all documentary evidence for presentation to and review/inspection by MSCHE during the Middle States Accreditation Visit of April 2005

10. Responsibility for Enacting and Reviewing the Plan

The responsibility for enacting and reviewing the plan for the assessment of overall institutional effectiveness is closely tied to the responsibility for strategic planning. Thus, there is mutual responsibility on institutional and unit leadership. The Office of Institutional Research and Planning and the Continuous Improvement Educational Initiative will monitor the enactment of the plan through the institutional-level assessment activities outlined in Section 7.i, and through review of unit-level strategic plans and annual reports. For their part, academic and administrative units will execute and revise their assessment plans as part of strategic planning and annual reporting processes.

The Chancellor and the Office of Institutional Research and Planning will periodically review the institutional effectiveness assessment plan. The initiatives will be evaluated in the context of the same five criteria guiding the plan's development and implementation:

- Relevance to mission, goals, objectives
- Effectiveness of support and collaboration
- Applicability of selected measures
- Use of findings for improvement
- Realism of goals, timetable, resources

The results of institutional-level assessment activities will be used to refine and restructure assessment initiatives for the coming years. The plan will be communicated to the campus community on the UPRM website.

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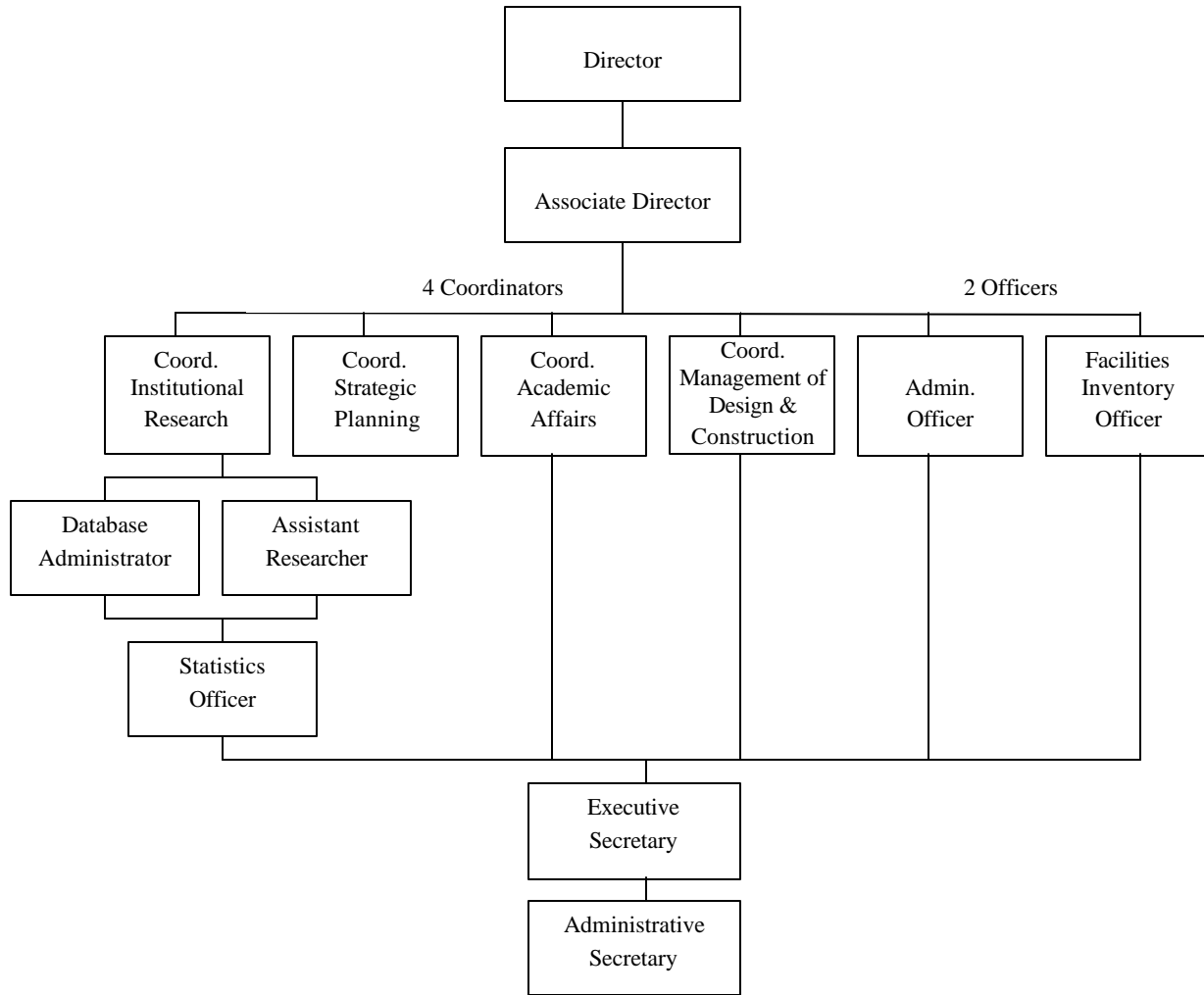
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APPENDIX A

Proposed Organizational Chart, Office of Institutional Research and Planning



APPENDIX B**UPRM Subunits Identified by UPRM-MSCHE Institutional Steering Team**

1. Deans of Academic Colleges
2. Dean of Academic Affairs
3. Dean of Administration
4. Office of Institutional Planning and Research
5. Budget Office
6. Academic Senate
7. R&D Center (Director)/Experimental Agricultural Station
8. Computer Center (Director)
9. Physical Plant (Director)
10. Alumni Office
11. Finance Office
12. Human Resources
13. Board of Trustees/University Board
14. Chancellor
15. Administrative Board
16. Dean of Students
17. Admissions Office
18. Student Ombudsman
19. Guidance Counselors (Professional Counselors)
20. Department Chairs
21. Dialogue Committee (President)
22. Students' Organizations (Presidents)
23. Student Representatives (Boards, Senate, Colleges)
24. Unions (Presidents)
25. Elected Senators
26. Faculty
27. Non-teaching staff
28. Students
29. Graduate Studies Office
30. Registrar's Office
31. Library
32. Center for Professional Enhancement
33. Program Directors
34. Agricultural Extension
35. Division of Continuing Education and Professional Studies
36. Personnel Committees
37. Exchange Program
38. Purchasing Office
39. Vocational Rehabilitation

APPENDIX C

Institutional Indicators

Indicators	Collecting Office/ Data Owner	Computerized?
STUDENTS		
Applicants <ul style="list-style-type: none"> choice, academic program, type of high school, place of residence, gender, other demographic data, graduate programs 	Admissions Office (UPRM) Central Administration (UPR)	all
Admitted <ul style="list-style-type: none"> academic program, type of high school, place of residence, gender, age, graduate programs, CEEB scores (averages and percentiles), percent who passed courses for advanced placement, IGS score 	Admissions Office (UPRM)	all
Enrolled <ul style="list-style-type: none"> gender, year of study, academic program, town of residence, total enrollment, newly admitted, status (regular, irregular), graduate programs, foreign students (by country), honor students, full-time students, remedial courses (math, English) 	Registrar's Office	all
Economic Assistance	Financial Aid Office Dean of Students	all
Graduate Assistants <ul style="list-style-type: none"> TA and RA at institution RA on research funds 	Graduate School Dean of Academic Affairs	some
Student Profile <ul style="list-style-type: none"> all data for enrolled students (shown above), pregnant or have children, marital status, work status, disability status, use of medical services, medical plans, parental education level; high school courses in math, science, English, Spanish 	Admissions Office (UPRM) Student Orientation Medical Services UPR Admissions	all
Student Progress <ul style="list-style-type: none"> time to complete degree, continued enrollment, attrition 	Registrar's Office Dean of Academic Affairs Graduate School	all
Program Transfers <ul style="list-style-type: none"> originating program; program requested; gender, age, other demographic variables 	Registrar's Office	all
Institution Transfers <ul style="list-style-type: none"> originating program and institution; program requested; gender, age, other demographic variables 	Registrar's Office Admissions Office	all
Drop Outs <ul style="list-style-type: none"> department and college; gender; transfer or native student; number of semesters attended; reasons for leaving 	Registrar's Office	all but reasons for leaving
Suspensions	Registrar's Office	all

Indicators	Collecting Office/ Data Owner	Computerized?
Probationary Students	Registrar's Office	all
Readmissions	Registrar's Office	all
Grade Distribution	Registrar's Office Computer Center	all
Graduating Students <ul style="list-style-type: none"> • gender, department, college; December graduates; summer graduates; May graduates; time to graduate 	Registrar's Office Computer Center	all
Enrollment Process <ul style="list-style-type: none"> • number of courses offered by department and level; number of sections per course; academic load 	Registrar's Office Academic departments	all
FACULTY		
General Distribution <ul style="list-style-type: none"> • gender, race, country of origin, academic preparation, academic rank, type of appointment, status, recruitment, demographic data, academic load 	Personnel Committees Dean of Academic Affairs Human Resources EEO	some
Research and Publications <ul style="list-style-type: none"> • number, journal titles, rank in Citation Index, number of times cited • educational proposals: submitted, approved, period/length, number of principal investigators • scientific proposals: submitted, approved, period/length, number of principal investigators • public service proposals • academic load assigned to research 	Colleges Dean of Academic Affairs Research and Development Center Library	since 1995
STAFF (NONTEACHING)		
General Distribution <ul style="list-style-type: none"> • gender, country of origin, academic preparation, type of appointment, years of service, status (full or part-time) 	Human Resources Academic Departments	none
FACILITIES		
Inventory of Facilities <ul style="list-style-type: none"> • classrooms, laboratories, offices, rooms with maximum capacity (classes and exams), utilization of classrooms and labs 	Property Office	yes
REGULATIONS		
<ul style="list-style-type: none"> • IPEDS reports, accreditation reports, Student Right To Know, NCAA graduation rate, Affirmative Action, ADA and Law 51 	Dean of Academic Affairs Registrar's Office EEO	some

APPENDIX D

Templates for Strategic Planning and Assessment

1. Template from UPRM Strategic Planning Process
2. Bucknell University Template for Departmental Assessment Plans

UPRM Strategic Planning Process Template

Leadership	Strategies	Tactics & Activities	Measures/ Indicators	Responsible Parties	Date/Timeline
Be leaders in the teaching-learning process.					
Internationalize the institution.					
Develop a robust planning process.					
Develop a permanent assessment process to guide decision-making.					
Develop continuous improvement processes.					
Link budget and planning processes.					
Establish a flat organization where leadership is shared.					
Students/Alumni					
Provide quality services and excellent conditions for student life.					
Develop students who are motivated and committed to excellence and social responsibility.					
Develop the whole student.					
Empower students to get involved in campus activities and to develop leadership skills.					
Improve links with alumni.					
Academic Affairs (Curriculum, Teaching, Learning)					
Maintain updated academic offerings.					
Improve and innovate the teaching-learning process.					
Increase offerings in academic and professional graduate studies.					
Promote an entrepreneurial spirit in students.					
Improve continuing education offerings.					
Research, Creative Work, and Graduate Studies					
Achieve a higher level of research and creative activity.					
Develop research that aids the technological, economic, and social development of Puerto Rico.					
Establish collaborations with other universities and other institutions in and outside of Puerto Rico.					
Strengthen the search for external funds.					

UPRM Strategic Planning Process Template, continued

Community Service and Social Scope	Strategies	Tactics & Activities	Measures/ Indicators	Responsible Parties	Date/Timeline
Increase the dissemination and promotion of research, creative, and service activities.					
Foster extensive collaboration and service to the community.					
Support community development initiatives.					
Human Resources					
Develop an environment that fosters good communication and a culture of excellence.					
Recruit the best employees.					
Educate and train employees to maintain knowledge and skills.					
Promote diversity and cross-training for employees.					
Develop fair evaluation systems tied to professional development.					
Develop strategies of motivation, promotion, and compensation to stimulate commitment and excellence.					
Effective and Efficient Administration					
Self-evaluate and learn from experience.					
Strive to be an operationally agile, efficient, and auditable institution.					
Promote process automation.					
Continuously evaluate and improve teaching support processes.					
Re-engineer core processes.					
Infrastructure					
Review master infrastructure and facilities plan.					
Update improvement plan.					
Complete the UPRM communication network.					

Bucknell University Template for Outcomes Assessment Plans

Element	Tasks	Notes
University Mission and Goals	State the university’s mission and goals.	
Unit Mission	State the unit’s general purpose. Why does it exist and for whom? How does the unit’s mission relate to the university’s mission?	
Unit Goals	State the overall goals of the unit in the context of its mission. (Goals are more specific than mission, and convey long-term intended purposes.)	
Unit Objectives	How will the unit determine whether the defined goals are being met? (These may be considered measures of quality. Objectives are typically shorter term and more specific than goals. List a manageable number (3-5) and categorize by type if helpful.)	
Assessment Techniques	By what measures will you assess the effectiveness of your unit? (For each measure, specify a standard of success, i.e., specific criteria by which achievement can be judged. Multiple measures are recommended for each objective.) What measures are already in place? What additional measures need to be implemented? How and when will they be implemented?	
Outcomes (Results, Statistics)	What did you find out? What do the data show? What information do you want to disseminate? To whom? How?	
Decisions (Plans for future, recommendations)	Based on your data, what do you plan to do now?	
Actions Taken	What has actually been done? What changes have resulted from this feedback loop (e.g., in resource allocation)?	
Revisions to Assessment Plan	What changes have been made to the assessment plan itself as a result of the experience with a full cycle of collecting evidence and utilizing it to improve quality?	