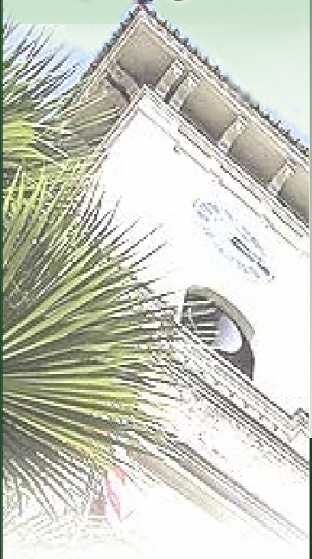


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GENERAL EDUCATION ASSESSMENT PLAN

Annex to the UPRM Institutional Plan for the
Assessment of Student Learning
Academic Senate Certification No: 03-43
(September 30, 2003)

General Education Assessment Task Force
Office of Continuous Improvement and Assessment

Approved by OMCA's Academic Steering Team
February 7, 2007

Acknowledgment

The General Education Assessment Task Force was organized in October 2006 under the Office of Continuous Improvement and Assessment (OMCA) as part of the UPRM's efforts to institutionalize a culture of assessment and to address specific recommendations from the Middle States Commission on Higher Education (MSCHE) based on its 2005 accreditation visit. The task force members were as follows:

Mabel Ortiz González – Arts & Sciences (Coordinator)

Sandra L. Dika - OMCA (Co-coordinator)

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Efraín O'Neill Carrillo - Engineering

Edly Santiago – Agricultural Sciences

Jeannette Valentín – General Library

The task force displayed exemplary effort in formalizing UPRM's first institution-wide General Education Assessment Plan, which is both specific in its contents and yet broad enough to provide flexibility for the unique requirements of each academic college. The leadership, team work, and dedication on the part of the two coordinators, Mabel Ortiz González and Sandra L. Dika, along with the countless hours spent by the task force members has led to the timely delivery of a comprehensive, practical plan that extends our existing institutional assessment plans.

Anand D. Sharma

Director, OMCA

February 7, 2007

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Executive Summary

Reports by accrediting agencies have signaled the need to establish specific guidelines, philosophy and goals for UPRM general education program. These agencies advise that the UPRM general education program should be published and given specific mention in official UPRM catalogues and publications. Since UPRM has offered consistently general education courses and curricula in each of its four colleges throughout its history, it is urgent that these requests be honored and made evident through the adoption, publication, and dissemination of a General Education (GE) Assessment Plan.

The General Education (GE) Assessment Plan was developed by the UPRM General Education Assessment Task Force, appointed by the UPRM Administration. This plan will serve to augment the existing “Institutional Plan for the Assessment of Student Learning” (Administrative Board Certification No. 03-04-180; Academic Senate Certification No. 03-43) and will provide a necessary component for the assessment of general education standards and related student learning outcomes. The plan contains specific steps, measures, and recommendations to ascertain that all UPRM constituencies participate in its development and enactment by:

- **Outlining the nine institutional GE outcomes and minimum GE requirements.** The plan provides mechanisms for each college to specify its particular general education philosophy, goals, and curricular requirements in the UPRM catalogue.
- **Delineating ways to coordinate the plan and establishing the program and specifying strategies** such as: designating responsibilities for the enactment and implementation of the GE assessment plan.
- **Including both direct and indirect forms of assessment administered on a recurring cycle.** The direct forms of assessment consist of: (a) rubrics, (b) other embedded assessment approaches, and (c) standardized testing. Indirect forms of assessment involve the use of questionnaires including the National Survey of Student Engagement (NSSE) and three surveys to be developed by the institution.
- **Implementing measures for GE assessment.** Assessment of general education will be conducted annually following a three-year cycle in which each general education outcome is assessed every three years. Academic units will conduct assessment of GE as part of their existing assessment of student learning outcomes. The plan will be reviewed annually by the Academic Steering Team of the Office of Continuous Improvement and Assessment (OMCA - Oficina de Mejoramiento Continuo y Avalúo) and will be revised as necessary to reflect changes in general education definitions, requirements, and offerings.
- **Utilizing GE assessment results.** An annual GE report will be developed by the General Education Coordinator with assistance from Assessment Liaisons in the Computer Center and the offices of Institutional Research and Planning (OIIP) and Continuous Improvement and Assessment (OMCA). Findings will be reported to the Administrative Board (Junta Administrativa) and the Academic Senate (Senado Académico) and shared with faculty, academic leaders, students, and external constituencies as appropriate. The General Education Committee will utilize the findings to identify priorities and opportunities for improvement. Assessment and curricular committees at the college and department levels will receive disaggregated assessment results to facilitate the identification of priorities at each of these respective levels.

Taking these steps will allow UPRM to demonstrate a firm commitment to its mission, values, and strategic goals.

Section I: Purpose and Background

This section:

- A. Introduces the purpose of the General Education (GE) Assessment Plan**
- B. Outlines the UPRM general education outcomes**
- C. Presents the background and status of general education at UPRM related to the requirements of the Middle States Commission on Higher Education (MSCHE)**

A. Purpose of the GE Assessment Plan

The General Education (GE) Assessment Plan contributes to the realization of UPRM's mission, vision, values, and institutional student learning outcomes.

The aim of the assessment of general education (GE) is to examine:

- How and to what level students attain the specific general education outcomes (institutional student learning outcomes)
- How the major area of study deepens the intellectual skills and knowledge emphasized in general education
- How general education complements the major area of study

To design this plan, the UPRM GE Assessment Task Force reviewed the existing institutional assessment plans for student learning and institutional effectiveness along with general education assessment plans from other institutions. The GE assessment plans of selected benchmark institutions were reviewed based on similarities in institutional structure and program offerings in addition to institutional performance.

The UPRM Institutional Student Learning Outcomes (Certification 03-04-180) define the core of what it means to be a well-educated university graduate. At UPRM, general education requirements provide a solid academic preparation, rooted in the complexities of local and global contexts, which allow graduates of the institution to distinguish themselves in their respective professions.

The general education program, as well as the specialized academic programs, is designed to enable students to discover and develop their abilities, knowledge, and sense of responsibility so they may reach their fullest potential as highly educated members of society and as good citizens.

B. UPRM GE Outcomes

The nine (9) official institutional student learning outcomes, published in the 2006-2007 UPRM Undergraduate Catalogue (<http://www.uprm.edu/catalog/UndergradCatalog2006-2007.pdf>) express the approved and established general education outcomes at UPRM. These outcomes are shown in Figure 1 as they appear in the catalogue.

- By the time of their graduation, UPRM students will be able to:**
- a) Communicate effectively.**
 - b) Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline.**
 - c) Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology.**
 - d) Apply ethical standards.**
 - e) Recognize the Puerto Rican heritage and interpret contemporary issues.**
 - f) Appraise the essential values of a democratic society.**
 - g) Operate in a global context, relate to a societal context, and demonstrate respect for other cultures.**
 - h) Develop an appreciation for the arts and humanities.**
 - i) Recognize the need to engage in life-long learning.**

Figure 1. UPRM institutional student learning outcomes

Various initiatives to clarify the definitions of the general education outcomes for the institution are underway, most notably, an institution-wide effort that began with the “*Encuentro*” faculty retreat in February 2006. The retreat brought together faculty members in a discussion of the 2002 Association of American Colleges and Universities’ (AAC&U) national panel report entitled “Greater Expectations: A New Vision for Learning as a Nation Goes to College.” The faculty members involved in the retreat are in the process of developing a revised graduating student profile (see Appendix A). Upon the formal adoption of this profile, a comparative analysis of the two sets of established and proposed learning outcomes will be prepared. The comparison of analogous items will show how the proposed new set generally helps to clarify each of the established learning outcomes.

C. Background and Status of GE Regarding Accreditation Requirements

In its description of the characteristics of excellence associated with general education (MSCHE, 2006), the Middle States Commission on Higher Education (MSCHE) specifies fundamental elements of general education at an accredited institution. These elements are shown in Figure 2.

Figure 2
Middle States Commission on Higher Education (MSCHE)
Fundamental Elements of General Education

- General education program is of sufficient scope to enhance students' intellectual growth, equivalent to at least 30 semester hours for baccalaureate programs
- Skills and abilities developed in general education are applied in the major or concentration
- General education program incorporates study of values, ethics, and diverse perspectives consistent with institutional mission
- Institutional requirements assure that, upon graduation, students are proficient in oral and written communication, scientific and quantitative reasoning, and technological competency appropriate to the discipline
- General education requirements are clearly described in the official publications of the institution
- Assessment of general education outcomes is emphasized within the institution's overall plan for assessing student learning, and evidence is presented that such assessment results are used for curricular improvement

From *Characteristics of Excellence in Higher Education*, Middle States Commission on Higher Education (2006), pp. 48-49

Further, MSCHE (2006, p. 47) specifies that a recognizable core of general education:

- Expresses the educational philosophy of the institution for each undergraduate degree program or cluster of degree programs
- Incorporates essential knowledge, cognitive abilities, and an understanding of values and ethics
- Enhances students' intellectual growth
- Draws students into new areas of intellectual experience, expanding their cultural and global awareness and sensitivity, and preparing them to make enlightened judgments outside as well as within their academic specialty

2005 Self-Study Results and Actions Taken

UPRM was most recently reaccredited by MSCHE in June 2005. While UPRM has delivered its general education program for many decades, requirements were not consistently documented across the colleges. During the self-study process for Standard 12, the general education curricula for each college were documented and are shown in Section III of this plan.

In its evaluation report to UPRM (available at <http://www.uprm.edu/omca/reports.php>), MSCHE deems the general education program as adequate, and commends the institution for its general education course sequences in the following general education subject areas:

- Spanish and English
- Sciences (natural and social)
- Humanities
- Mathematics
- Electives (12 credits)

The MSCHE team offered three specific suggestions related to general education; two under Standard 12 (General Education) and one under Standard 14 (Assessment of Student Learning). Further, the evaluation team specifically refers to students who struggle with the calculus and English course sequences in a timely manner, and label this as a prime concern for the university.

The recommendations and resulting actions taken appear in Table 1.

Table 1. 2005 MSCHE Self-Study Recommendations and Actions Taken

MSCHE Recommendation	Actions Taken
<p>Ensure that the general education program, including clearly defined objectives is clearly described in the catalog and other appropriate publications (MSCHE-UPRM Report, p. 15)</p>	<p>The 2007-2008 UPRM Undergraduate Catalogue will include the following information on general education <u>for each college</u>:</p> <ul style="list-style-type: none"> • Definition of general education • General education outcomes • Courses that fulfill the institutional general education requirements, as defined by the institutional student learning outcomes <p>This information will also be published on the respective college web sites.</p> <p>The required format for 2007-2008 and subsequent catalogue submissions is provided in Appendix B to ensure uniformity of information provided by each of the colleges. Information must be received by the Office of the Dean of Academic Affairs no later than May 8, 2007.</p> <p>To ensure consistency of information, departments will also be required to publish departmental missions and student learning outcomes in the UPRM Undergraduate Catalogue.</p>
<p>Demonstrate that the general education program will give students competence in information literacy (MSCHE-UPRM Report, p. 15)</p>	<p>At UPRM, information literacy skills are not addressed as a separate subject within general education curricula but are embedded within course objectives. This approach follows the MSCHE definition of information literacy as “embracing” of all the specific general education skills (MSCHE, 2006, p. 47).</p> <p>In Section III of this plan, tools are provided at the institutional and departmental levels to demonstrate how students attain and deepen information literacy skills during their studies. Information literacy is separated as an additional learning outcome to facilitate documentation of student learning in this area. The role of programs and services of the General Library and the units under the Office of the Dean of Students in the development of information literacy skills are described in this section.</p>
<p>Review the learning goals for general education and develop a formal assessment plan that specifies an ongoing approach to studying these important goals. Responsibility for this project needs to be assigned and a schedule developed (MSCHE-UPRM Report, pp. 17-18)</p>	<p>The UPRM General Education (GE) Assessment Task Force has been charged to develop a GE assessment plan. The task force was appointed in Fall 2006 by the UPRM Chancellor and Dean of Academic Affairs. Oversight of the task force was assigned to the Office of Continuous Improvement and Assessment (OMCA - Oficina de Mejoramiento Continuo y Avalúo). The Director of OMCA requested the submission of a completed plan by February 15, 2007 to be considered by the Administrative Board (Junta Administrativa) by March 1, 2007.</p>

Section II: Institutional Coordination of GE Assessment

This section:

- A. Indicates the formal responsibility for coordination of institutional assessment and proposes the appointment of a General Education Coordinator**
- B. Outlines the major elements of the continuous improvement process at UPRM**

A. Formal Responsibility for the Coordination of GE Assessment

The Office of the Dean of Academic Affairs oversees all matters related to curricula and student learning but does not have an office or position specifically designated for the coordination of general education at the institutional level.

The Office of Continuous Improvement and Assessment (OMCA) is charged with the coordination of institutional-level assessment methods and processes. The OMCA Academic Steering Team is its formal decision making body for matters related to assessment of student learning. This team includes participants from all four academic colleges and the offices of Graduate Studies, the Dean of Academic Affairs, and Institutional Research and Planning (OIIP – Oficina de Investigación Institucional y Planificación). Within the OMCA office, a temporary full-time position has been created for an Assessment Specialist who is primarily responsible for the design, administration, and coordination of all assessment activities at UPRM.

In October 2006, the General Education Assessment Task Force was appointed as an ad-hoc task force of OMCA by the offices of the Chancellor and the Dean of Academic Affairs to develop a formalized general education assessment plan for UPRM.

In order to ensure continuity in the coordination of GE assessment at UPRM, additional resources must be assigned. After considering the GE assessment models from other institutions, the GE Assessment Task Force recommends the formation of a GE Team to implement the UPRM GE Assessment Plan. The organizational chart and description of team components are shown in Figure 3 and Table 2, respectively.

The formation of the team involves the creation of two (2) new positions within the Office of the Dean of Academic Affairs: a faculty member as a half-time General Education Coordinator appointed by and reporting to the Dean of Academic Affairs, and a full-time administrative assistant to support the General Education Coordinator, the General Education Committee, and the assessment liaisons.

Figure 3. Organizational Chart of GE Team

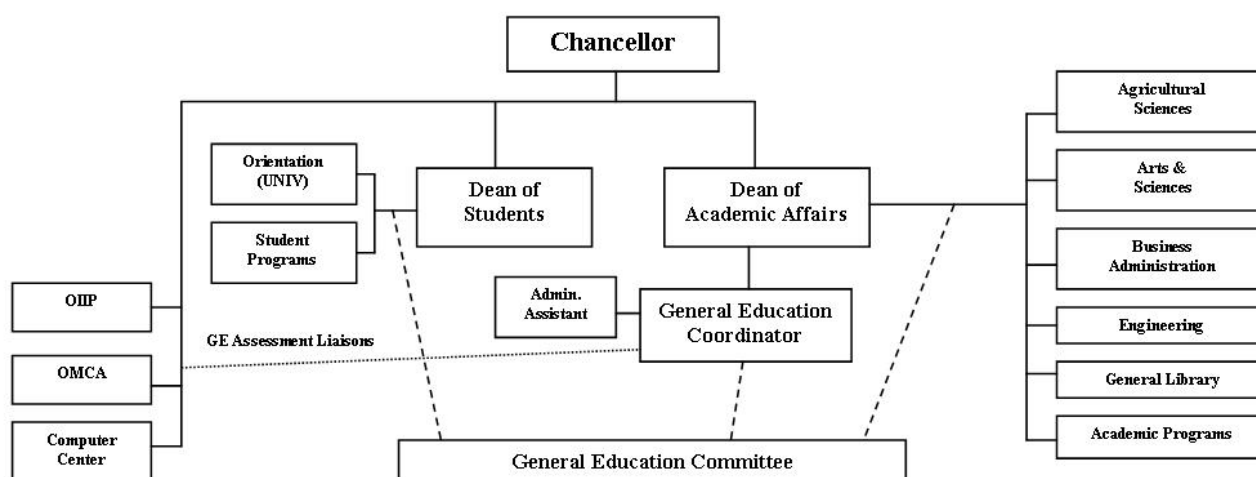


Table 2. Structure of UPRM GE Team

Position	Description	Responsibilities
General Education (GE) Coordinator*	<ul style="list-style-type: none"> Faculty member with experience in and knowledge related to general education, appointed by and reporting to the Dean of Academic Affairs 	<ul style="list-style-type: none"> Lead efforts to define general education philosophy, goals, and curricula with GE Committee Coordinate review and use of GE assessment results
General Education (GE) Committee	<ul style="list-style-type: none"> General Education Coordinator Two faculty representatives from each of the following academic colleges: <ul style="list-style-type: none"> Arts & Sciences <ul style="list-style-type: none"> One representative of arts and one representative of sciences selected from the existing Undergraduate Education Committee Agricultural Sciences Business Administration Engineering One representative from each of the following dean's offices: <ul style="list-style-type: none"> Academic Affairs Students One student representative (from any discipline) 	<ul style="list-style-type: none"> Participate in efforts to define general education philosophy, goals, and curricula Coordinate review and use of GE assessment results Coordinate GE assessment administration and aggregation of data within their particular units
General Education (GE) Assessment Liaisons	<ul style="list-style-type: none"> One representative from each of these offices: OIIP, OMCA, and Computer Center 	<ul style="list-style-type: none"> Coordinate data collection, aggregation, and analysis from the various offices across campus Collaborate with GE Coordinator in the development of the annual GE assessment report Provide support as necessary
Administrative Assistant**	<ul style="list-style-type: none"> Administrative professional with experience in project coordination 	<ul style="list-style-type: none"> Provide administrative and technical support to GE Coordinator and Committee

*New half-time position; compensation or release time

**New full-time position

B. Major Elements of the UPRM Continuous Improvement Process

At UPRM, the continuous improvement process for student learning follows a cycle of four elements (see Figure 4).

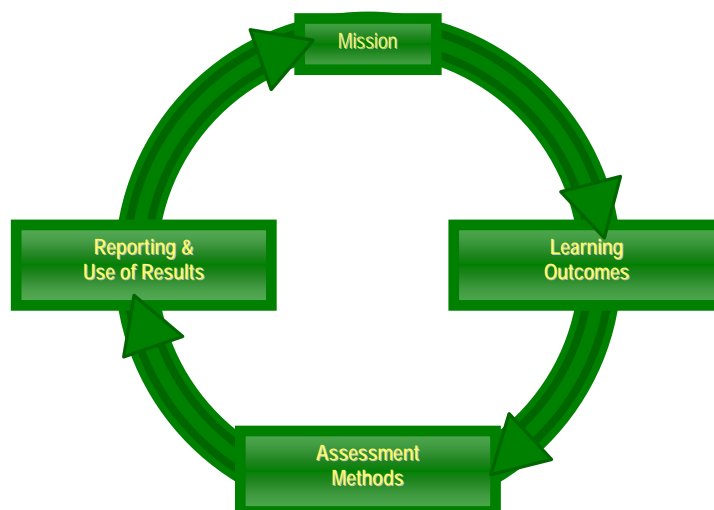


Figure 4. Continuous improvement cycle for student learning at UPRM

The institution has adopted an institutional plan for the assessment of student learning, and OMCA is responsible for the implementation and revision of this plan. As specified by the institutional plan, all academic units (i.e., departments and/or programs) are required to develop and maintain a student learning assessment plan. These plans address the first three elements of the continuous improvement cycle – mission, learning outcomes, and assessment methods.

To address the final element of the cycle, academic units are required to submit annual reports to OMCA using a template to demonstrate how assessment results are used to improve student learning and guide strategic planning (see Appendix C). Assessment plans and reports are reviewed annually by the Academic Assessment Review Committee to determine the alignment of plans and activities with standard criteria in the “Feedback Rubric for Academic Assessment Plans and Reports” (see Appendix D). The rubric and the template for student learning assessment reports are both available online at <http://www.uprm.edu/omca> under “Assessment Resources.”

With the development of this GE Assessment Plan, institution-wide procedures will be established to assess the attainment of general education knowledge, abilities, and values. The application of general education knowledge, abilities, and values to the major area of study will be assessed as part of the existing processes at the department/program level. Assessment guidelines (including tools, strategies, and timelines) are detailed in Section IV of the plan.

Section III: GE Program

This section:

- A. Identifies existing general education requirements common to all academic colleges**
- B. Provides a tool to document opportunities for students to attain general education outcomes at the department level (curricular and co-curricular)**
- C. Highlights the role of programs and activities offered by the General Library and the offices of the Dean of Students in the general education program**
- D. Lists official institutional and college or department level committees that are responsible for the development of general education curricula and proposes the creation of a general education committee**

A. GE Curriculum and Course Requirements

As stated in Section I, the institutional student learning outcomes define the general education program objectives for all colleges. Each college has specified a core curriculum for its students, and there are some significant variations. For example, the College of Arts & Sciences requires its students to take 12 credits in Spanish, while all other colleges require only six (6) credits. In addition, the College of Engineering requires 19 credits in mathematics, while the other colleges require only six (6) credits.

Various authorities concur that general education must be an experience common to all students (AAC&U, 2002; MSCHE, 2006; Nichols & Nichols, 2001). The Association of American Colleges and Universities (AAC&U, 2002, p. 25) defines general education as "...the part of a liberal education curriculum shared by all students. It provides broad exposure to multiple disciplines and forms the basis for developing important intellectual and civic capacities."

An examination of the 2006-2007 UPRM Undergraduate Catalogue and documentation from the 2005 MSCHE self-study reveals a set of minimum requirements common to all colleges (44 credits) that might be considered as a shared general education program. The shared requirements are restricted to introductory level courses in seven subject areas. The number of required credits in English and physical education are equal across colleges. For Spanish, humanities, social sciences, mathematics, and sciences, there are some variations. Thus, the total number of required general education credits differs by college, between 44 to 56 credits. Table 3 illustrates this characteristic. Major variations by college are noted. In a few programs (e.g., Office Administration and Surveying & Topography), the general education requirements may differ from those listed for the respective colleges. For information related to particular programs, please consult the UPRM Undergraduate Catalogue.

Physical education (2 credits) is an institutional requirement of the University of Puerto Rico (UPR) that all students must complete prior to graduation. A working list of specific courses that fulfill the minimum subject area requirements appears in Appendix E, along with five examples of GE course requirements from programs in each of the four colleges. It should be noted that all but one of the engineering programs are five-year programs, and all other academic programs at UPRM are four-year programs with the exception of biotechnology (Arts & Sciences).

Table 3: Minimum GE Requirements by Subject Area

Subject area / College	Minimum Required Credits	Variations by College
Spanish	6	Arts & Sciences: 12 credits
English	12	None
Humanities	6	Engineering: 15 credits (Socio-humanistic electives)
Social Sciences	6	
Mathematics	6	Arts & Sciences: some variations based on department Business Administration: 3 credits (Office Administration program) Engineering: 5 credits (MATE 3005)
Sciences (Biological/Physical)	6	Agricultural Sciences: 8 credits (QUIM 3001-3002) Arts & Sciences: 12 credits (courses determined by department) Business Administration: 6 credits (Natural Science electives) Engineering: 8 credits (QUIM 3001-3002)
Physical Education	2	None
Total number of credits	44	Agricultural Sciences: 46 credits Arts & Sciences: 56 credits Business Administration: 44 credits Engineering: 48 credits

B. Documentation of Opportunities to Attain GE Outcomes

Students at UPRM achieve the general education outcomes and goals through different enabling activities, including curricular and co-curricular activities. Curricular activities are formal educational activities for which students receive academic credit. Co-curricular activities are educational activities that occur outside formal, credit-bearing courses.

Each academic department will develop and publish a **GE Outcomes/Activities Matrix** (Table 4) showing the alignment of general education outcomes with educational activities. Completion of this template will demonstrate how the major area of study deepens the intellectual skills and knowledge emphasized in general education through specific activities. While information literacy is not a separate general education outcome of the institution, it is included within the general education student learning objectives of various core curricula.

Table 4 displays an example entry from the Marketing program of the College of Business Administration for the first outcome.

Table 4: Example GE Outcomes/Activities Matrix - Marketing Program

UPRM GE Outcomes	Curricular Activities (including GE required courses)	Co-curricular Activities
Communicate effectively	<ul style="list-style-type: none"> • ESPA 3101-3102 • First year English (6 credits) • Second year English (6 credits) • Elective courses in communication (e.g., ESOR 4028) • Internships (MERC 4995) • Coop experiences 	<ul style="list-style-type: none"> • Student organizations (American Marketing Association) • Writing Across the Curriculum • Student competitions involving public speaking
Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline		
Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology		
Apply ethical standards		
Recognize the Puerto Rican heritage and interpret contemporary issues		
Appraise the essential values of a democratic society		
Operate in a global context, relate to a societal context, and demonstrate respect for other cultures		
Develop an appreciation for the arts and humanities		
Recognize the need to engage in lifelong learning		
Develop information literacy skills*		

*See note in Table 1, page 5

Appendix F provides a template similar to Table 4 to be included in the student learning assessment plan of each department beginning in August 2007.

C. Role of the General Library and the Office of the Dean of Students in the GE Program

Tables 5 and 6 delineate the multiple learning opportunities provided by the General Library and the Office of the Dean of Students, respectively, and their relationship to the institutional general education outcomes.

Table 5: Programs of the General Library and GE Outcomes

General Education Outcomes	Aligned Programs and/or Services	Office
Communicate effectively	<ul style="list-style-type: none"> Library orientations on writing research papers 	Coordinator: CEDIBI* Presenters: Librarians
Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline	<ul style="list-style-type: none"> INTD 3355 Library orientations 	Coordinator: CEDIBI Presenters: Librarians
Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology	<ul style="list-style-type: none"> Internet services, data bases, online catalogue, information search services 	Coordinator: CEDIBI Presenters: Librarians
Apply ethical standards	<ul style="list-style-type: none"> INTD 3355 Conferences on themes such as plagiarism, author copyright laws, intellectual property, acknowledging sources 	CEDIBI Patent and Registered Trademarks Library
Recognize the Puerto Rican heritage and interpret contemporary issues	<ul style="list-style-type: none"> Monthly exhibits of Puerto Rican Collection Presentations and conferences on Puerto Rican issues 	Puerto Rican Collection Puerto Rican Collection Álvarez Nazario Collection
Appraise the essential values of a democratic society	N/A	N/A
Operate in a global context, relate to a societal context, and demonstrate respect for other cultures	N/A	N/A
Develop an appreciation for the arts and humanities	<ul style="list-style-type: none"> Monthly exhibits of Puerto Rican Collection Presentations of and conferences on Puerto Rican literature 	Puerto Rican Collection Puerto Rican Collection Álvarez Nazario Collection
Recognize the need to engage in life-long learning	<ul style="list-style-type: none"> Technological Assistance Center (Centro de Asistencia Tecnológica -CAT) 	Library Circulation
Apply information literacy skills	<ul style="list-style-type: none"> INTD 3355 BIOL 3055 AGRO 4019 CISO 3145 Library orientation sessions as requested by professors 	Coordinator: CEDIBI Presenters: Librarians

*CEDIBI: Centro para el Desarrollo de Destrezas de Información Bibliográfica e Informática (Center for the Development of Library and Information Skills)

Table 6: Programs of the Units of the Dean of Students and GE Outcomes

General Education Outcomes	Aligned Programs and/or Services	Office
Communicate effectively	<ul style="list-style-type: none"> • Preparation period for job interview, and resume preparation • Orientation sessions • Orientation, counseling and psychotherapy procedures • UNIV course 	Placement Orientation Orientation
Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline	N/A	N/A
Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology	N/A	N/A
Apply ethical standards	<ul style="list-style-type: none"> • UNIV course • Counseling and psychotherapy procedure • Complaint registering procedure • Disciplinary procedure for violations of the Student Manual 	Orientation Dean of Students
Recognize the Puerto Rican heritage and interpret contemporary issues	<ul style="list-style-type: none"> • Musical arrangements by Puerto Rican composers • Training in the use of typical Puerto Rican musical instruments • Choreography of traditional Puerto Rican dances • Theatrical presentations of Puerto Rican drama • Puerto Rican Crafts Fair • Puerto Rican Art Exhibits 	Band and Orchestra Social and Cultural Activities
Appraise the essential values of a democratic society	<ul style="list-style-type: none"> • Student associations • Student government representatives 	Dean of Students Social and Cultural Activities
Operate in a global context, relate to a societal context, and demonstrate respect for other cultures	<ul style="list-style-type: none"> • U.S. Student Exchange Program • International Student Exchange Program • International Musical Group Competitions • Musical arrangements and interpretations • Dance choreography and interpretations 	Student Exchange Band and Orchestra
Develop an appreciation for the arts and humanities	<ul style="list-style-type: none"> • Presentations of various musical and artistic trends • UPRM dance and music organizations 	Social and Cultural Activities Band and Orchestra
Recognize the need to engage in life-long learning	<ul style="list-style-type: none"> • Counseling and guidance services • Psychotherapeutic services • UNIV course • Services to students with special needs 	Orientation Dean of Students

D. GE-Related Committees at UPRM

UPRM does not currently have an institutional-level committee assigned to the coordination of the general education program. Permanent committees at the institutional, college, and departmental levels are responsible for curricular and assessment matters. The only college with a standing committee specifically related to general education is the College of Arts & Sciences.

- **Institutional Committees**

- Academic Senate Course Committee (Comité de Cursos del Senado Académico)
- Academic Senate Curricular Affairs Committee (Comité de Asuntos Curriculares del Senado Académico)
- OMCA Academic Steering Team

- **College Committees**

- Agricultural Sciences Curriculum Committee
- Arts & Sciences Curriculum Committee
- Arts & Sciences Undergraduate Education Committee (Comité de Educación Subgraduada)
- Business Administration Curriculum Committee
- Engineering Academic Affairs Committee
- Engineering ABET Committee
- College Assessment Committees

- **Departmental Curriculum and Assessment Committees** are multiple in number and serve the needs of individual departments and units.

After considering the GE assessment models from other institutions, it is recommended that the institution appoint a representative general education committee to support the General Education Coordinator (proposed in Section II). This committee should be composed of faculty members from all colleges, with additional representation from those departments which offer GE courses.

Section IV: Strategies to Assess GE Outcomes

This section:

- A. Identifies recognized criteria for assessment methods**
- B. Provides institutional indicators for general education**
- C. Outlines a model for general education assessment at the institutional level**
- D. Describes suggested procedures for data collection, aggregation, and analysis and proposes the assignment of assessment personnel to this task**
- E. Provides templates for general education assessment at the department/unit level**

A. Recognized Criteria for Student Learning Assessment Methods

In designing a general education assessment plan to meet the specific needs of UPRM, the GE Assessment Task Force ensured that the plan included key elements required by the Middle States Commission on Higher Education (MSCHE) and addressed the Education Criteria for Performance Excellence espoused by the Baldrige National Quality Program.

Key criteria for assessment methods at UPRM have been developed based on the MSCHE Standards of Excellence and the Baldrige criteria. These criteria, outlined below, are used to provide yearly feedback to academic units on their student learning assessment plans.

- Multiple (at least 3) assessment measures are identified.
- Assessment measures are aligned to general education goals.
- Direct measures of student learning are emphasized.
- Indirect measures of student learning are utilized.
- Assessment measures allow student performance to be gauged over time.
- Assessment design includes a timeline for implementation and administration.
- Assessment design indicates who will participate in each assessment.

The “Feedback Rubric for Academic Assessment Plans and Reports” (available from <http://www.uprm.edu/omca/resources.php>) illustrates these criteria and corresponding performance levels.

B. GE Indicators

To facilitate the continuous assessment of general education outcomes and goals, the institution will monitor selected general education indicators each semester to observe trends and make timely interventions. The Chancellor, Dean of Academic Affairs, General Education Coordinator, and other relevant stakeholders should meet once a semester to review these figures.

- Percentage of entering students with mathematics, Spanish, and English deficiencies
- Enrollment data for GE courses
- Failure and withdrawal rates in GE courses
- Retention rates after first and second year
- Graduation rates

Additional indicators will be determined by the General Education Coordinator in conjunction with OIIP and OMCA.

C. Model for GE Assessment

The UPRM Model for General Education Assessment incorporates both direct and indirect measures of each of the nine general education outcomes and information literacy. General education outcomes assessment will take place within those courses classified as general education courses as well as other courses and activities which foster general education goals at UPRM.

The direct and indirect assessment methods that will be used are shown in Tables 7 & 8, respectively. These tables provide details on the source, purpose, frequency, participants, and coordinating offices for each assessment method. Each of the nine (9) general education outcomes, along with information literacy, will be assessed by at least one direct and one indirect method.

Table 7 displays the direct measures that will be employed to determine student attainment of general education outcomes. All direct assessment of student learning in general education will be coordinated by the Office of the Dean of Academic Affairs and supported by OIIP and OMCA. The model incorporates standardized academic proficiency testing, course embedded assessments, and rubrics to evaluate writing, oral presentations, and critical thinking. To ensure that all outcomes are measured directly, academic departments are encouraged to develop course-embedded assessments. All other assessments will be selected or developed by university-level appointed committees.

Table 8 displays indirect measures that will be employed to determine student, alumni, and employer perceptions of student attainment of general education outcomes. The coordinating offices vary by method, as shown in the table. A Spanish version of the National Survey of Student Engagement (NSSE) will be administered every 3 years (first administration was in 2004-05) and will allow UPRM to compare the attainment of general education outcomes with peer institutions of its own choosing and the overall population of participating institutions of higher education. Appendix G displays selected items of the NSSE that are aligned to UPRM general education outcomes. Aggregated results from the instrument used to evaluate faculty instruction (COE) will be used to determine student perceptions of the attainment of course objectives in those courses. Surveys of student satisfaction, employer satisfaction, and alumni perceptions will be locally developed and administered on a regular basis. Existing instruments used by the General Library will be used to gauge student perceptions of learning on particular GE outcomes.

Expected levels of accomplishment will be set for each outcome once baseline levels of student performance are established; that is, percentage of students attaining each outcome, criterion, or average score on a standardized test. This will occur after new assessments have been piloted and fully implemented by UPRM.

Table 7: Direct Measures of GE Outcomes

Assessment Method- Direct Measures	Source/ Developer	Purpose of the Assessment (GE Outcomes Measured)	Frequency of Administration	Student Participation	Coordinating Offices
Standardized academic proficiency test (in English) (e.g., CAAP, MAAP)	To be selected	Measure attainment of GE outcomes 1, 2, and 3	Annually	Representative sample of all graduating students	Dean of Academic Affairs
Course embedded assessments in GE courses (locally developed)	Individual professors and/or academic departments	Measure attainment of all GE outcomes (1-9) and Information Literacy	Continuous	Sample of all students enrolled in GE courses	Dean of Academic Affairs
Writing rubric	University appointed committee (TBA)	Measure writing skills in English and Spanish (1) and Information Literacy	Continuous	Students enrolled in GE and specialization courses	Dean of Academic Affairs
Oral presentation rubric	University appointed committee (TBA)	Measure oral presentation skills in English and Spanish (1) and Information Literacy	Continuous	Students enrolled in GE and specialization courses	Dean of Academic Affairs
Critical thinking rubric	University appointed committee (TBA)	Measure critical thinking skills (2) and Information Literacy	Continuous	Students enrolled in GE and specialization courses	Dean of Academic Affairs

Table 8: Indirect Measures of GE Outcomes

Assessment Method- Indirect Measures	Source/ Developer	Purpose of the Assessment (GE Outcomes Measured)	Frequency of Administration	Student Participation	Coordinating Offices
National Survey of Student Engagement (NSSE)	Indiana University	Measure student perceptions of attainment of all GE outcomes (1-9) and Information Literacy	Every 3 years	All freshman students All graduating students	OIIP
Student Opinion Questionnaire (Cuestionario de Opinión Estudiantil-COE)	UPRM Office of Dean of Academic Affairs	Measure student perceptions of attainment of course objectives in all GE courses (all outcomes)	Every academic semester	All students enrolled in GE courses	OMCA, Dean of Academic Affairs
Student Services Satisfaction Survey (locally developed)	UPRM Office of Dean of Students	Measure student participation in and satisfaction with co-curricular activities across all GE outcomes (1-9) and Information Literacy	Annually (beginning 2007)	All students (voluntary)	Dean of Students, OIIP, & OMCA
Employer Survey (locally developed)	UPRM university appointed committee (TBA) with Placement Office and college-level offices	Measure employer perceptions and satisfaction of specific GE outcomes (1-4, 7, 9)	Every three years (beginning 2009)	Sample of employers	Placement Office, OIIP, & OMCA
Alumni Survey (locally developed)	UPRM university appointed committee (TBA) with Alumni Office and college-level offices	Measure alumni perceptions and satisfaction across all GE outcomes (1-9) and Information Literacy	Every three years (beginning 2008)	Sample of alumni	Alumni Office, OIIP, & OMCA
General Library Survey and orientation evaluation forms	UPRM General Library	Measure student perceptions of learning for specific GE outcomes (2 and 3) and Information Literacy	Survey: annual Evaluations: continuous	All students (voluntary) Participants in student orientation	General Library

D. Coordination of Data Collection, Aggregation, and Analysis

The general education assessment model displayed in Tables 7 and 8 incorporates multiple direct and indirect assessment methods coordinated by various campus offices. For course-embedded assessments and rubrics, results will need to be recorded by the faculty member using the assessment tool. Results from faculty members will need to be aggregated by course or department, then up to the institutional level. This task requires expertise in the use and management of databases; knowledge of statistical procedures and software; along with accuracy and attention to detail.

The extraordinary amount of coordination, skill, and knowledge required to ensure accurate and timely reporting of GE results creates the need for personnel to be assigned to the coordination and assessment elements of the process. As suggested in Section II of this report, it is recommended that UPRM assigns General Education Assessment Liaisons to work with the General Education Coordinator and Committee. The Office of Institutional Research and Planning (OIIP) will compile and provide of institutional data with the assistance of the Computer Center. The Office of Continuous Improvement and Assessment (OMCA) will analyze the assessment results at the institutional, college, and department levels and collaborate with the General Education Coordinator to produce the required institutional reports.

E. GE Assessment Templates

Each academic department, as well as the General Library and the relevant offices under the Dean of Students, will complete a general education assessment model following the institutional model. Appendix F provides a template for the general education model matrix to be included in the student learning assessment plan of each department and submitted to OMCA (as a single document) by the General Library and units under the Dean of Students.

Section V: Reporting and Use of GE Assessment Results

This section:

- A. Identifies recognized criteria for assessment reporting and use of results**
- B. Describes the general education assessment reporting requirements**
- C. Provides a mechanism for general education assessment reporting for departments/units**
- D. Describes intended use of general education assessment results for continuous improvement**

A. Recognized Criteria for Reporting and Use of Student Learning Assessment Results

Key criteria for reporting and use of assessment results at UPRM have been developed based on the MSCHE Standards of Excellence and the Baldrige criteria, as described in Section IV of this plan and outlined in the “Feedback Rubric for Academic Assessment Plans and Reports”.

The following criteria are used to provide yearly feedback to academic units on their student learning assessment plans.

- Assessment results are disaggregated by appropriate demographic groups (such as gender, class standing, and transfer students).
- Information from assessment results is shared with multiple constituents in a timely manner.
- Assessment results are reviewed and discussed by faculty at department, college, and institutional levels.
- Assessment results indicate the extent to which priority student learning outcomes have been achieved.
- Assessment results are used to improve student learning (e.g., change/revise learning outcomes, change/revise courses or curriculum).
- Assessment results are used in strategic planning.
- Assessment results are used to identify next assessment priority and/or to change the assessment plan.

B. GE Assessment Reporting Requirements

General education assessment results at the institutional level will be reported annually to the Chancellor by the Office of the Dean of Academic Affairs with the assistance of the Office of Continuous Improvement and Assessment (OMCA) as part of the annual reporting process currently established at the institution.

The annual general education report will include monitoring of the established indicators of general education, reflecting the nine student learning outcomes, as well as a detailed report on the three general education outcomes of focus as per the assessment cycle in Section VI of this plan. The report will be expected to meet the criteria for assessment results as outlined in Section V-A above.

C. GE Assessment Reporting Template

The purpose of assessment of general education at the departmental level is to demonstrate how the major area of study deepens the intellectual skills and knowledge emphasized in general education and how general education complements the major area of study. Academic departments are required to submit assessment reports annually to the Office of Continuous Improvement and Assessment (OMCA). Beginning in May 2008, departments will be required to report results for at least one of the three institutional general education outcomes of focus to show how the corresponding major area(s) of study enhances students' attainment of these outcomes. In addition, the General Library and the relevant units under the Office of the Dean of Students will provide an annual report to OMCA describing student learning results for at least one of the three institutional general education outcomes of focus. Table 9 shows a preliminary reporting template, which will be finalized and distributed to departments, the General Library, and the units under the Office of the Dean of Students by OMCA in fall 2007.

Table 9: GE Assessment Reporting Template

Sub-section		Content
Focus of Assessment Project		<ul style="list-style-type: none"> Which GE outcome of focus was assessed? How is it related to your department learning outcomes? Be specific.
Justification (data-based)		<ul style="list-style-type: none"> What facts (e.g., student performance, faculty evaluations, pre-study) motivated the department/assessment committee to focus on the selected GE outcome?
POPULATION <i>Student</i> <i>Faculty</i>		<ul style="list-style-type: none"> What were the numbers of students and faculty members impacted by the project? Was the focus on all students or on a sub-group of students (e.g., second year students)? Are the students department majors?
Assessment Cycle	Pre-intervention	<ul style="list-style-type: none"> What measures or tools (e.g., pretest, critical thinking essay) were applied to determine the student status on the chosen skill or content before the intervention? Note: Pre-intervention may be the same as Justification (above)
	Intervention	<ul style="list-style-type: none"> What activities (e.g., workshop, lecture) were implemented to improve student performance in the chosen skill or content?
	Post-intervention	<ul style="list-style-type: none"> What are the criteria for success and how was the effectiveness of the intervention determined? What tools (e.g., post-test, rubric, exam) were used to determine student progress on the chosen skill or content? How were the tools applied and to whom?
Results		<ul style="list-style-type: none"> What results were obtained? Indicate date of review. What do the results imply about the effectiveness of the intervention to deepen student learning in GE? Does performance differ by student group (e.g., gender)?
Dissemination of Results		<ul style="list-style-type: none"> How, when, and to whom were the results of the assessment project disseminated?
Possible Reasons or Hypotheses		<ul style="list-style-type: none"> What are possible explanations for the results, be they positive or negative, e.g., intervention was not effective to improve student performance?
Course of Action		<ul style="list-style-type: none"> What actions have been or will be taken based on these results? Will the action require more assessment? Be explicit.
Next Assessment Priority		<ul style="list-style-type: none"> What do you plan to assess next? Will you continue on this same item or assess a different skill or content?
Appendix		<ul style="list-style-type: none"> Include copies of all assessment tools (unless distribution is restricted)

D. Use of GE Assessment Results

In addition to the Chancellor, the annual GE assessment report will be formally submitted to an institutional general education committee to be led by the General Education Coordinator. The committee will be expected to review the report and recommend institutional priorities for general education to the Dean of Academic Affairs and the Chancellor.

The institutional, college, and department curriculum and assessment committees listed in Section III of this plan will also be requested to review the disaggregated assessment results and identify appropriate priorities and initiatives annually. The coordination of the dissemination and review of the assessment results will be determined by the General Education Coordinator, the general education committee, and the assessment personnel assigned to this effort.

Section VI: Implementation of GE Assessment Plan

This section:

- A. Identifies an institutional cycle for the assessment of general education outcomes using direct and indirect methods**
- B. Describes General Education Assessment Plan implementation strategies at the institution, college, and department levels**
- C. Outlines a process for the regular review of the General Education Assessment Plan**

A. Institutional GE Assessment Cycle

In order to guarantee continuity and permanency of general education assessment at UPRM, Table 10 specifies how three to four specific student learning general education outcomes will be assessed every three years.

Table 10: Institutional GE Assessment Cycle

UPRM GE Outcomes	2007-08	2008-09	2009-10	2010-11	2011-12
Communication	X			X	
Problem solving, critical thinking, higher order thinking		X			X
Mathematics, science, information technology	X			X	
Ethics		X			X
Puerto Rican heritage and contemporary issues	X			X	
Democratic values			X		
Global and societal contexts, diversity			X		
Arts & humanities			X		
Lifelong learning		X			X
Information literacy*		X			X

*See note in Table 1, page 5

Tables 11 and 12 display the administration cycles for direct and indirect assessment of general education outcomes. Where appropriate, pilot testing of new instruments is incorporated

Table 11: GE Assessment Administration Cycle – Direct Methods

General Education Outcomes	2007-08	2008-09	2009-10	2010-11	2011-12
Communication	Pilot testing of Writing and Oral Presentation Rubrics	Administration of academic proficiency test (as selected in 2007-08) Continuous use of rubrics and course-embedded assessment methods			
Problem solving, critical thinking, higher order thinking	Pilot testing of Critical Thinking Rubric				
Mathematics, science, information technology	Pilot testing of course-embedded assessment methods				
Ethics			Pilot testing of course-embedded assessment methods (as part of “Ethics Across the Curriculum”)	Continuous use of course-embedded assessment methods	
Puerto Rican heritage and contemporary issues		Pilot testing of course-embedded assessment methods	Continuous use of course-embedded assessment methods		
Democratic values					
Global and societal contexts, diversity					
Arts & humanities					
Lifelong learning					
Information literacy	Pilot testing of Writing, Oral Presentation, and Critical Thinking Rubrics	Administration of academic proficiency test (as selected in 2007-08) Continuous use of rubrics and course-embedded assessment methods			

Table 12: GE Assessment Administration Cycle – Indirect Methods

Assessment Methods	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
National Survey of Student Engagement	Special administration of NSSE (BEAMS project)	Administration of NSSE			Administration of NSSE	
Student Opinion Questionnaire (COE)	Continuous administration of faculty evaluation (every course, every semester)					
Student Satisfaction Survey	Pilot testing of survey	Annual administration of survey				
Employer Survey			Pilot testing of survey	Administration of survey		
Alumni Survey		Pilot testing of survey	Administration of survey			Administration of survey
General Library Survey	Annual administration of survey					

B. GE Assessment Plan Implementation Checklists

The following six checklists highlight the major responsibilities of each unit in the implementation of the GE assessment plan.

Office of Dean of Academic Affairs (General Education Coordinator and Committee)

- Appoint a faculty member as General Education Coordinator and a faculty committee (General Education Committee) to lead efforts to define general education philosophy, goals, and curricula, and coordinate review and use of GE assessment results
- Coordinate the assignment of assessment liaisons with OIIP, OMCA, and the Computer Center to coordinate data collection, aggregation, and analysis from the various offices and to collaborate in the development of the annual GE assessment report (in collaboration with Chancellor's office)
- Assign an administrative assistant to support the General Education Coordinator and Committee
- Distribute and collect UPRM GE Catalogue Form (Appendix B) from colleges and departments
- Compile GE requirement information from GE catalogue forms to be published in the annual undergraduate catalogue
- Appoint representative committees, including subject or method experts as necessary, to develop the following instruments and assessment tools:
 - Writing, Oral Presentation, and Critical Thinking Rubrics
 - Standardized Academic Proficiency Test (selection of existing instrument)
 - Employer and Alumni Surveys
- Coordinate implementation of direct measures of GE outcomes (Table 7) with support from Assessment Liaisons
- Develop and provide training to college assessment coordinators on the use of rubrics
- Develop detailed guidelines on the use of rubrics for faculty members
- Compile general education course-level data from writing, oral presentation, and critical thinking rubrics based on template provided by OMCA and submit to OIIP (General Education Committee with assistance from Assessment Liaisons)
- Develop annual report of general education assessment results with assistance from OIIP, OMCA, and assigned assessment personnel

- Identify institutional priorities for general education (general education committee) and assign appropriate resources to initiatives (Dean of Academic Affairs)

Office of Continuous Improvement and Assessment (OMCA)

- Distribute and collect GE Outcomes/Activity Matrix from departments and other units (Appendix F)
- Distribute and collect GE Assessment Model Matrix from departments and other units (Appendix F)
- Coordinate implementation of assessment measures (Tables 7 and 8) with specified units
- Collect and review department student learning assessment reports, including general education assessment results (Table 9)
- Develop an electronic template for faculty members to record results from direct assessment at the course level

Office of Institutional Research and Planning (OIIP)

- Maintain databases for direct and indirect assessment methods
- Generate statistical reports as petitioned by the Office of the Dean of Academic Affairs and/or the General Education Coordinator and OMCA
- Coordinate implementation of assessment measures (Tables 7 and 8) with specified units

Colleges

- Submit UPRM GE Catalogue Form (Appendix B) to Office of Dean of Academic Affairs in May 2007 and annually thereafter
- Distribute rubrics and guidelines for use to faculty (Assessment Coordinators)
- Review institutional GE assessment report and identify opportunities for improvement based on college-level data

Departments

- Submit UPRM GE Catalogue Form (Appendix B) to Office of Dean of Academic Affairs in May 2007 and annually thereafter
- Complete GE Outcomes/Activities Matrix (Appendix F) and include within department student learning assessment plan
- Develop course-embedded assessments for GE courses (e.g., BIOL, CIBI, CIFI, CISO, EDFI, ESPA, GEOL, HUMA, INGL, ESPA, MATE, QUIM)
- Develop and deliver training and guidelines for the use of course-embedded assessments including data collection and entry
- Compile course-level data from writing, oral presentation, and critical thinking rubrics based on template provided by OMCA and submit to OIIP
- Complete and submit results of GE assessment on one GE outcome (Table 9) as part of annual student learning assessment report to OMCA
- Review institutional GE assessment report and identify opportunities for improvement based on GE course-level data

General Library

- Complete GE Outcomes/Activities Matrix (Appendix F) and submit to OMCA as per schedule to be established
- Complete GE Assessment Model Matrix (Appendix F) and submit to OMCA as per schedule to be established

- Compile relevant results from library surveys and provide to OMCA on an annual basis
- Complete and submit results of GE assessment on one GE outcome (Table 9) as part of annual student learning assessment report to OMCA (INTD and other courses)
- Submit annual GE assessment report (Table 9) to OMCA as per schedule to be established (library programs and services)
- Review institutional GE assessment report and identify opportunities for improvement in programs and services

Office of Dean of Students

- Complete GE Outcomes/Activities Matrix (Appendix F) and submit to OMCA as per schedule to be established
- Complete GE Assessment Model Matrix (Appendix F) and submit to OMCA as per schedule to be established
- Develop satisfaction survey for student services with the assistance of OMCA and OIIP
- Complete and submit results of GE assessment on one GE outcome (Table 9) as part of annual student learning assessment report to OMCA (UNIV course)
- Submit annual GE assessment report (Table 9) to OMCA as per schedule to be established (all units)
- Review institutional GE assessment report and identify opportunities for improvement in programs and services

C. Process for Reviewing the GE Assessment Plan

The UPRM institutional General Education Assessment Plan is a dynamic plan, subject to periodic review after ample input and participation of the faculty and its representative bodies. The plan will be formally reviewed every three years by OMCA. The department student learning plans, which will now include GE assessment models, are currently reviewed and evaluated annually by OMCA.

Section VII: Conclusions and Recommendations

This section:

- A. Summarizes the major elements of the UPRM General Education Assessment Plan**
- B. Presents recommendations from the General Education Assessment Task Force for the consideration of the university leadership**

A. Summary of GE Assessment Plan

The UPRM GE Assessment Plan outlines a comprehensive proposal for the assessment and continuous improvement of general education at UPRM. The plan specifies the following important elements:

- Identifies nine institutional GE outcomes
- States the institutional coordination of GE assessment, and recommends the appointment of a General Education Coordinator and committee under the Office of the Dean of Academic Affairs
- Identifies a common GE Program for all students, encompassing Spanish, English, mathematics, social sciences, humanities, sciences (biological/physical) and physical education
- Delineates a comprehensive mix of direct and indirect methods to assess GE outcomes, and recommends the assignment of assessment personnel to handle the collection, aggregation, and analysis of data from various sources
- Specifies procedures for reporting and use of GE assessment results, to ensure the wide dissemination of results and their use for improvement of student learning at all levels
- Provides checklists for implementation of GE assessment plan for all concerned stakeholders, to clearly present the responsibilities of each office and unit

B. Recommendations

For the successful implementation of this general education assessment plan, UPRM must:

1. Provide opportunities for the involvement of the entire faculty in the articulation of a definition of GE and the graduating student profile (Perfil del Egresado) at UPRM, in specifying existing opportunities to learn and deepen general education skills in the major, and in the determination of how GE curricula contribute to the attainment of GE goals.
2. Define a core GE philosophy and curricula with approved courses to fulfill minimum GE requirements by subject area and by college.
3. Disseminate GE philosophy, curricula, student learning outcomes, and graduating student profile (Perfil del Egresado) to prospective and current students and faculty members through orientations and other activities.
4. Appoint a faculty member as General Education Coordinator and a faculty committee to lead efforts to define general education philosophy, goals, and curricula, and coordinate review and use of GE assessment results.

5. Assign general education assessment liaisons to coordinate data collection, aggregation, and analysis from the various offices and to collaborate in the development of the annual GE assessment report.
6. Determine the roles of offices such as OMCA, OIIP, Computer Center, Registrar's Office, Associate Deans of Research and Assessment, and Graduate Studies in the GE assessment process, including but not limited to:
 - study of existing data
 - centralization of results
 - assessment coordination
 - monitoring of progress
 - implementation of assessment cycles
 - selection of specific assessment tools
 - selection of methods and benchmarks
 - establishment of criteria for success
 - supervision of efforts
 - formalization of record keeping
 - provision of training opportunities for GE assessment methodologies
 - publication of assessment results
 - initiation of GE assessment protocol

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Glossary

UPRM will develop its own definitions for GE terms as the institutional GE philosophy evolves. These are helpful examples from other institutions and agencies that can be used as starting points.

Student Learning Outcomes

Analytic reasoning skills -- Analytic reasoning is the formulation and critique of deductive and inductive arguments, both quantitative and non-quantitative. This reasoning is essential to many intellectual activities, such as critical thinking, problem-solving, creating and applying. This component requires students to engage in general learning experiences in mathematics, logic, statistics, or computer science. (UWS)

Communication skills -- Communication skills are the study and application of expressive and receptive language skills, most often exercised in reading, writing, speaking, and listening. These fundamental skills are basic to human development and academic functioning. (UWS)

Critical thinking and problem solving -- Identify problems, explore solutions, prioritize solutions, and revise priorities as a means for purposeful action. (CCAC)

Culture and society -- Describe and explain behaviors and beliefs, socio-historical influences, and aesthetic values of various populations ... (CCAC)

Ethical standards -- The rules or standards governing the conduct of a person or the conduct of the members of a profession. (AHSMD)

Information literacy -- Retrieve, analyze, synthesize, organize, and evaluate information through technological and traditional means (CCAC); the ability to locate, evaluate, and use information to become independent life-long learners (SACS)

Information technology -- Any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term 'information technology' includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources. (NCAITE)

Quantitative and scientific reasoning -- Apply appropriate mathematical and/or scientific concepts and theories in order to interpret data and solve problems based on verifiable evidence. (CCAC)

Technological competency -- Use digital technology and other discipline-specific technological tools in order to access and communicate information needed to complete tasks. (CCAC)

General Education Subject Areas

Arts & humanities -- Arts employ conscious use of skill and creative imagination in the production of artistic objects or performances which stress values that stand outside conventional ideas of utility. The humanities investigate human constructs and values, as opposed to those studies that investigate natural and physical processes and those that are concerned with the development of basic or professional skills. (UWS)

Natural sciences -- The Natural Sciences are the sciences of the physical world, its phenomena, and the laws governing these phenomena. The branches of Natural Sciences--such as astronomy, geosciences, biological sciences, chemistry, physics--deal primarily with matter, energy, and their interrelations and transformations; with living organisms and vital processes; with the laws and phenomena relating to organisms, plants and animal life; with the physical processes and phenomena of particular systems; and with the physical properties and composition of nature and its products. (UWS)

Physical activities -- Physical activities are movement-related activities leading to wellness. (UWS)

Social sciences --The social sciences formulate and verify general hypotheses regarding human behavior. The social sciences deal with the behavior of societal, economic, political and cultural groups. Consequently this component focuses on the academic disciplines of sociology, economics, political science and cultural anthropology, insofar as these disciplines deal with general and non-applied knowledge concerning social behavior. (UWS)

Sources:

AHSMD: American Heritage Stedman's Medical Dictionary

CCAC: Community College of Alleghany County ([http:// www.ccac.edu/default.aspx?id=149887#com](http://www.ccac.edu/default.aspx?id=149887#com))

CRESST: Center for Research on Evaluation, Standards, and Student Testing (<http://www.cse.ucla.edu>)

NCAITE: National Center on Accessible Information Technology in Education
(<http://www.washington.edu/accessit/index.php>)

SACS: Southern Association of Colleges and Schools (<http://www.sacs.org>)

UWS: University of Wisconsin-Stout (<http://www.uwstout.edu/provost/currhb/GECatDef.htm>)

Appendices

Appendix A: Encuentro 2006 Proposed Graduating Student Profile for UPRM (in Spanish)

Appendix B: UPRM GE Catalogue Submission Forms

Appendix C: OMCA Template for Student Learning Assessment Reports (2006-07)

Appendix D: OMCA Feedback Rubric for Academic Assessment Plans and Reports

Appendix E: Working List of Courses that Align with Minimum GE Requirements, by Subject Area

Appendix F: GE Templates

Appendix G: Selected Survey Items from National Survey of Student Engagement (NSSE)

APPENDIX A

Encuentro 2006

Proposed Graduating Student Profile for UPRM (in Spanish)

Encuentro 2006
Proposed Graduating Student Profile for UPRM (in Spanish)
Unofficial Document

NUEVO PERFIL DEL EGRESADO DEL RECINTO UNIVERSITARIO DE MAYAGÜEZ

Nos proponemos proveer al estudiante de bachillerato una sólida preparación académica para destacarse en una profesión en el contexto de una educación amplia y arraigada en la compleja realidad puertorriqueña y mundial. Tanto la educación especializada, como la educación general, deberán propiciar que el estudiante descubra y desarrolle sus habilidades, sus conocimientos y su sentido de responsabilidad de modo que pueda hacer realidad su potencial de vida.

Corresponde especialmente a la educación general en el Recinto Universitario de Mayagüez de la Universidad de Puerto Rico desarrollar los siguientes valores en su estudiantado:

1. **La importancia de la visualización, la imaginación y la creación** para impulsar nuevas ideas y conceptos.
2. **La avidez de aprender**, tomando el conocimiento como un proceso reflexivo, cambiante y continuo.
3. **La búsqueda íntegra de la verdad y la sabiduría**; la práctica de la democracia, la justicia y la paz; y el cultivo de la vida plena, la conciencia ambiental, comunitaria y global.

Corresponde también especialmente a la educación general en el Recinto Universitario de Mayagüez proveer los siguientes conocimientos:

4. **Cultura general** en asuntos históricos, sociales, científicos, tecnológicos y artísticos, además de conocimiento en las relaciones entre estros, en el contexto de los problemas mundiales contemporáneos.
5. **El ambiente socioeconómico y cultural de Puerto Rico**, su historia, su diversidad, sus relaciones con el resto del mundo y los contextos que inciden en su presente y futuro desarrollo.
6. **El razonamiento matemático, los métodos científicos y las tecnologías de información** como conocimientos útiles en la adquisición de datos y la solución de problemas.

Y corresponde especialmente a la educación general en el recinto Universitario de Mayagüez apoderar al estudiante con las siguientes habilidades:

7. Podrá **expresarse** efectivamente de forma oral y escrita en español e inglés y entenderá la importancia de la claridad del pensamiento y la comunicación precisa.
8. Podrá **analizar, evaluar e integrar** información de fuentes diversas; reconocer y manejar problemas complejos considerando perspectivas convergentes y divergentes; y demostrando su capacidad de trabajar en equipos multidisciplinarios para lograr fines comunes.
9. Podrá **transformar sus conocimientos en juicios y acciones** conducentes a la prosperidad de la humanidad, procurando una mejor convivencia, y el respeto por el ambiente.

APPENDIX B
UPRM GE Catalogue Submission Forms

Form A: General Education Catalogue Submission Form for Academic Colleges

College	
State your college's philosophy of general education	
List your college's general education outcomes	

Please submit this completed form by (due date) to (name) in the Office of the Dean of Academic Affairs.

E-mail:

Fax:

Campus address:

Form B: General Education Catalogue Submission Form for Academic Departments

Department	
State your department's mission	
List your department's student learning outcomes	
List your department's general education outcomes	

Enter the courses accepted by your department to meet the institutional requirements for each general education subject area. **Departments offering two or more programs that differ in their general education credit or course requirements should submit a separate table for each program.**

Subject Area	Total Number of Required Credits	Accepted Courses
Spanish		
English		
Humanities		
Social Sciences		
Mathematics		
Sciences (Biological/Physical)		
Physical Education		
General education curriculum		

Please submit this completed form by (due date) to the Dean's office of your college.

E-mail:

Fax:

Campus address:

APPENDIX C
OMCA Template for Student Learning Assessment Reports (2006-07)



OMCA Template for Student Learning Assessment Reports (2006-07)

SECTION I: Mission and Student Learning Outcomes (Graduating Student Profile)

State the department's mission and list the student learning outcomes (graduating student profile).

SECTION II: Department Student Learning Assessment Project

Sub-section		Content
Focus of Assessment Project		<ul style="list-style-type: none"> What was assessed – a particular skill or content area, a course, or a learning outcome? How is it related to your department learning outcomes? Be specific.
Justification (data-based)		<ul style="list-style-type: none"> What facts (e.g., student performance, faculty evaluations, pre-study) motivated the department/assessment committee to focus on the selected skill/content/outcome(s)?
POPULATION <i>Student</i> <i>Faculty</i>		<ul style="list-style-type: none"> What were the numbers of students and faculty members impacted by the project? Was the focus on all students or on a sub-group of students (e.g., second year students)? Are the students department majors?
Assessment Cycle	Pre-intervention	<ul style="list-style-type: none"> What measures or tools (e.g., pretest, critical thinking essay) were applied to determine the student status on the chosen skill or content before the intervention? Note: Pre-intervention may be the same as Justification (above)
	Intervention	<ul style="list-style-type: none"> What activities (e.g., workshop, lecture) were implemented to improve student performance in the chosen skill or content?
	Post-intervention	<ul style="list-style-type: none"> What are the criteria for success and how was the effectiveness of the intervention determined? What tools (e.g., post-test, post essay, exam) were used to determine student progress on the chosen skill or content? How were the tools applied and to whom?
Results		<ul style="list-style-type: none"> What results were obtained? Indicate date of review. What do the results imply about the effectiveness of the intervention to improve student learning? Does performance differ by student group (e.g., gender)?
Dissemination of Results		<ul style="list-style-type: none"> How, when, and to whom were the results of the assessment project disseminated?
Possible Reasons or Hypotheses		<ul style="list-style-type: none"> What are possible explanations for the results, be they positive or negative, e.g., intervention was not effective to improve student performance?
Course of Action		<ul style="list-style-type: none"> What actions have been or will be taken based on these results? Will the action require more assessment? Be explicit.
Next Assessment Priority		<ul style="list-style-type: none"> What do you plan to assess next? Will you continue on this same item or assess a different skill or content?
Appendix		<ul style="list-style-type: none"> Include copies of all assessment tools (unless distribution is restricted)

APPENDIX D
OMCA Feedback Rubric for Academic Assessment Plans and Reports



Feedback Rubric for Academic Assessment Plans and Reports

KEY ELEMENTS OF ASSESSMENT PLAN/REPORT		Level of Performance		
MISSION:		Best Practice	Meets Standard	Opportunity for Improvement
Department mission is identified		In addition to meeting the standard, department mission is communicated via means other than the course catalogue and web site.	Department mission is student-focused, identifies the professional profile of its graduates, directly connects with the institutional mission, and is communicated to students and faculty via the course catalogue and department web site.	Does not meet the standard. OFI-1=does not meet 1 criterion OFI-2=does not meet 2 or 3 criteria OFI-3=does not meet 4 or 5 criteria
Department mission statement is student-focused				
Department mission identifies the professional profile of its graduates				
Department mission directly connects with the institutional mission				
Department mission is communicated publicly, i.e., catalogue, web				
LEARNING OUTCOMES:		Best Practice	Meets Standard	Opportunity for Improvement
Learning outcomes are identified for the department (not for individual class or course)		In addition to meeting the standard, targets are set for improvement or attainment of student learning outcomes.	Learning outcomes are student-focused, linked to the department's mission, and address multiple learning domains. The outcomes clearly describe, in a measurable fashion, what students will be able to do upon completion of the program.	Does not meet the standard. OFI-1=does not meet 1 or 2 criteria OFI-2=does not meet 3, 4, or 5 criteria OFI-3=does not meet 6, 7, or 8 criteria
Learning outcomes are clear				
Learning outcomes are measurable				
Learning outcomes span multiple learning domains (i.e., cognitive, behavioral, psychomotor)				
Learning outcomes are student-focused				
Learning outcomes clearly link to the department's mission statement				
Learning outcomes are addressed across the curriculum (i.e., each outcome in at least two (2) courses)				
Learning outcomes include higher order learning (e.g., analysis, evaluation, creation, critical thinking)				
ASSESSMENT METHODS:		Best Practice	Meets Standard	Opportunity for Improvement
Multiple (3 or more) assessment measures are identified		In addition to meeting the standard, major assessment questions or priorities are identified that guide the assessment plan.	There is an identifiable assessment design, including timeline and participants for each assessment method. Assessment methods clearly matches the learning outcomes being assessed, and multiple assessments are used systematically (repeatedly, on a schedule) over time.	Does not meet the standard OFI-1=does not meet 1 or 2 criteria OFI-2=does not meet 3, 4, or 5 criteria OFI-3=does not meet 6, 7, or 8 criteria
Copies of assessment instruments are provided				
Assessment measures are aligned to learning outcomes				
Direct measures of student learning are emphasized				
Indirect measures of student learning are utilized				
Assessment measures allow student performance to be gauged over time				
Assessment design includes a timeline for implementation and administration				
Assessment design indicates who will participate in each assessment				



Feedback Rubric for Academic Assessment Plans and Reports, continued

REPORTING AND USE OF RESULTS: (Assessment Report)		Best Practice	Meets Standard	Opportunity for Improvement
Major assessment results are reported		In addition to meeting the standard, standards have been established that clearly describe performance levels considered minimally adequate for students completing the program, and positive assessment results are shared with faculty, students, academic administrators, prospective students, and other audiences as appropriate.	Assessment results are shared and discussed with faculty in the department and are used to modify learning outcomes, teaching methods, curriculum, and/or assessment strategies.	Does not meet the standard OR plan has not been implemented OFI-1=does not meet 1 or 2 criteria OFI-2=does not meet 3, 4, or 5 criteria OFI-3=does not meet 6, 7, or 8 criteria
Assessment results are clear				
Information from the assessment results is shared with multiple constituents				
The assessment results are reviewed and discussed by department faculty				
Assessment results indicate the extent to which priority learning outcome(s) have been achieved				
Assessment results are used to improve student learning (e.g., change/revise learning outcomes, change/revise courses or curriculum)				
Assessment results are used in strategic planning				
Assessment results are used to identify next assessment priority and/or to change the assessment plan				

Assessment Checklist adapted from Jones (2006) "Developing Assessment Plans," presentation at 2006 MSCHE Student Learning Assessment Summer Institute in Philadelphia, PA. Copy available from OMCA upon request.

Performance levels adapted from Suskie (2004), "Assessing Student Learning – A common sense guide," Bolton, MA: Anker.

APPENDIX E
Working List of Courses that Align with Minimum GE Requirements,
by Subject Area

Working List of Courses that Align with Minimum GE Requirements, by Subject Area

A working list of courses presently offered at UPRM that align with the minimum general education requirements, by subject area, appears on the following pages. This list will be updated and maintained based on information submitted by the colleges and departments (Appendix B). At the same time, it will never be in final form but must remain a dynamic list. Departments are sometimes realigned, courses are sometimes recodified, new programs are established, existing programs are periodically revised, and new courses are continually created, some of which may satisfy general education requirements. For example, the UPRM Academic Senate has approved the creation of a Department of Psychology, separate from the present Department of Social Sciences, but it is understood that introductory psychology courses that presently satisfy general education requirements will continue to do so. Similarly, the recodification of some Mathematics (MATE) courses some years ago as Computer Science (COMP) or Mathematical Statistics (ESMA) courses did not affect their satisfaction of general education requirements in some programs.

It should be borne in mind that specific colleges, departments, or programs may require specific courses among those which appear in the following list. For example, all students in the College of Arts and Sciences are presently expected to satisfy their general education requirements in Humanities and Biological Sciences by taking HUMA 3111-3112 and BIOL 3051-3052 or CIBI 3031-3032, respectively. At the same time, flexibility is provided (particularly for students who transfer from one campus or academic program to another) by the judicious use of the "equivalence" form to provide degree credit (general education or otherwise) for courses (taken at UPRM or elsewhere) that are not specifically listed in the catalogue but that departments, with the college Dean's approval, understand to be acceptable alternatives.

Placement: "Prospective applicants for admission to the freshman class must take the University Evaluation and Admissions Tests (PEAU in Spanish) administered by the College Entrance Examination Board in Spanish" (UPRM Undergraduate Catalogue, 2006-2007, p. 56). These tests are used for placement in mathematics and English. Students with very low scores in these areas are required to pass a non-degree pre-basic course prior to enrolling in the corresponding first-year course. "Advanced placement is granted to students who approve the College Board Advanced Placement tests with scores of 4 or 5 in the English, Spanish, mathematics section (Level II), Calculus AB or Calculus BC. Students who meet these criteria, receive credits for the first-level course which appear in the student record as approved courses (P) and are placed in the next level course as specified by their curricula. These credits qualify as graduation requirements. Admission for students with scores of 4 or 5 varies according to the guidelines established by the specific academic department" (UPRM Undergraduate Catalogue, 2006-2007, p. 57). These are the only areas in which advanced placement credit is presently given to incoming freshmen; all are general education areas.

English requirement: Based on their test scores, incoming freshmen are assigned to one of four English courses. Inadequately prepared students must pass a non-degree pre-basic course (INGL 0066) prior to enrolling in INGL 3101-3102. Adequately prepared students are admitted to Basic English (INGL 3101-3102) or Intermediate English (INGL 3103-3104), depending on their level of proficiency. Students who take INGL 3101-3102 in the first year must take INGL 3201-3202 in the second year, while those who take INGL 3103-3104 in the first year choose 6 credits from among the courses listed as "second-year English" in the following table (not including INGL 3201-3202 or INGL 3211-3212). Students who obtain advanced placement in English, using the criteria described previously, receive degree credit for first-year English and take Advanced English (INGL 3211-3212) in their freshman year.

Working List of Courses that Align with Minimum GE Requirements, by Subject Area

Spanish

First Year Spanish	Second Year Spanish*		
ESPA 3101-3102 (6)	ESPA 3021 (3); 3022 (3)	ESPA 3305 (3)	ESPA 4105 (3)
	ESPA 3208 (3)	ESPA 3315 (3)	ESPA 4201 (3); 4202 (3)
	ESPA 3211-3212 (6)	ESPA 4007 (3)	ESPA 4215 (3)
	ESPA 3215 (3)	ESPA 4061-4062 (6)	ESPA 4221-4222 (6)
	ESPA 3295 (3)	ESPA 4071-4072 (6)	ESPA 4231-4232 (6)

*Second year Spanish courses require ESPA 3102; see 2006-07 UPRM Undergraduate Catalogue for details

English

First Year English	Second Year English**		
INGL 3101-3102 (6)	INGL 3201-3202 (6)	INGL 3268 (3)	INGL 3322 (3)
INGL 3103-3104 (6)	INGL 3211-3212 (6)	INGL 3300 (3)	INGL 3323 (3)
	INGL 3225 (3)	INGL 3305 (3)	INGL 3325 (3)
	INGL 3227 (3)	INGL 3306 (3)	INGL 3326 (3)
	INGL 3231 (3)	INGL 3312 (3)	INGL 3345 (3)
	INGL 3236 (3)	INGL 3317 (3)	INGL 3351 (3)
	INGL 3238 (3)	INGL 3318 (3)	INGL 3352 (3)
	INGL 3250 (3)	INGL 3321 (3)	

**Second year English courses (except INGL 3201-3202 and INGL 3211-3212) require INGL 3104; see discussion above of English requirement and 2006-07 UPRM Undergraduate Catalogue for details

Social Sciences

Social Sciences Electives***	
Anthropology ANTR 3005 (3); 3015 (3)	Political Science CIPO 3011 (3); 3025 (3); 3035 (3); 3095 (3); 3175 (3); 4016 (3); 4036 (3); 4127 (3); 4236 (3)
Economics ECON 3021 (3); 3022 (6)	Psychology PSIC 3001-3002 (6)
Geography GEOG 3155 (3); 3185 (3)	Social Science CISO 3121-3122 (6)
History HIST 3091 (3); 3092 (3); 3111 (3); 3112 (3); 3121-3122 (6); 3141 (3); 3142 (3); 3155 (3); 3158 (3); 3165 (3); 3185 (3); 3185 (3); 3195 (3); 3201 (3); 3202 (3); 3211 (3); 3212 (3); 3221 (3); 3222 (3); 3241 (3); 3242 (3); 4005 (3); 4111-4112 (6); 4117 (3); 4165 (3); 4171 (3); 4172 (3); 4220 (3); 4235 (3); 4345 (3)	Sociology SOCI 3016 (3); 3047 (3); 3261 (3); 3262 (3); 3295 (3); 3315 (3)

***List of electives includes only courses with no prerequisites.

Working List of Courses that Align with Minimum GE Requirements, by Subject Area

Humanities

Humanities Electives***	
Art ARTE 3007 (3); 3055 (3); 3121 (3); 3122 (3); 3131 (3); 3141-3142 (6); 3151 (3); 3152 (3); 3161-3162 (6); 3226 (3); 3276 (3); 3279 (3); 4021 (3); 4022 (3); 4301-4302 (6); 4331-4332 (6)	Languages ALEM 3041-3042 (6) FRAN 3141-3142 (6) GRIE 3011-3012 (6) ITAL 3071-3072 (6); 3085 (3) LATI 3011-3012 (6)
Comparative Literature LITE 3005 (3); 3025 (3); 3035 (3); 3041-3042 (6); 4011 (3); 4012 (3); 4021 (3); 4022 (3); 4076 (3); 4115 (3); 4118 (3)	Music MUSI 3135 (3); 3161 (3); 3162 (3); 3167 (3); 3171 (3); 3172 (3)
Humanities HUMA 3087 (3); 3111-3112 (6); 3271 (3); 3272 (3); 3401-3402 (6); 3411 (3); 3412 (3)	Philosophy FILO 3001 (3); 3002 (3); 3155 (3); 3156 (3); 3158 (3); 3167 (3); 3169 (3); 3175 (3); 3178 (3); 3185 (3); 4025 (3); 4027 (3); 4051 (3); 4052 (3); 4115 (3); 4125 (3); 4148 (3)
	Theater TEAT 3051-3052 (6); 3061-3062 (6); 3071-3072 (6); 3081-3082 (6); 3091-3092 (6)

***List of electives includes only courses with no prerequisites.

Mathematics

Mathematics Electives***		
MATE 3000 (3)	ESMA 3015 (3)	COMP 3010 (3)
MATE 3172 (3)	ESMA 3101 (3)	COMP 3057 (3)

***List of electives includes only courses with no prerequisites, except MATE 3172 (prerequisite MATE 3171).

Sciences (Biological/Physical)

Biological Science Electives***	Physical Science Electives***
BIOL 3021-3022 (6)	CIFI 3011-3012 (6)
BIOL 3051-3052 (6)	GEOL 3025/ 3026/ 3027 /3045/ 3046/ 3067/ 3105 (3)
BIOL 3435 (4)	QUIM 3001-3002 (8)
BIOL 3715 (3); 3716 (1)	QUIM 3041-3042 (8)
BIOL 3725 (4)	
BIOL 4015 (3)	
CIBI 3031-3032 (6)	

***List of electives includes only courses with no prerequisites.

Physical Education

Physical Education Electives***			
EDFI 3038 (1)	EDFI 3215 (1)	EDFI 3265 (1)	EDFI 3465 (3)
EDFI 3058 (2)	EDFI 3225 (1)	EDFI 3285 (1)	EDFI 3596 (1)
EDFI 3076 (1)	EDFI 3235 (2)	EDFI 3295 (1)	EDFI 3645 (2)
EDFI 3077 (1)	EDFI 3245-3255 (2)	EDFI 3305 (1)	EDFI 3685 (1)
EDFI 3205 (1)	EDFI 3246 (1)		

***List of electives includes only courses with no prerequisites.

The following table provides examples of courses that align with minimum general education requirements, by subject area, in several specific programs among the four colleges at UPRM.

**Examples of Courses that Align with Minimum General Education Requirements, by Subject Area
(representative programs, by college)**

Subject Area	College, Department and Degree Program				
	Agricultural Sciences Agronomy and Soils B.S. in Soil Sciences	Arts and Sciences Biology B.S. in Biology	Arts and Sciences Humanities B.A. in Comparative Literature	Business Administration B.S. in Business Administration (Accounting)	Engineering Mechanical Engineering B.S. in Mechanical Engineering
Spanish	ESPA 3101-3102 (6)	ESPA 3101-3102 (6) Second-year Spanish (6) *	ESPA 3101-3102 (6) Second-year Spanish (6) *	ESPA 3101-3102 (6)	ESPA 3101-3102 (6)
English	See discussion on page A-12 re. English requirement (12)	See discussion on page A-12 re. English requirement (12)	See discussion on page A-12 re. English requirement (12)	See discussion on page A-12 re. English requirement (12)	See discussion on page A-12 re. English requirement (12)
Humanities	Electives (6)*	HUMA 3111-3112 (6)	HUMA 3111-3112 (6)	HUMA 3111-3112 (6)	Electives in Socio-humanistics (15)*
Social Sciences	Electives (6)*	Electives (6) *	Electives (6) *	ECON 3021-3022 (6)	
Mathematics	MATE 3171-3172 (6)	MATE 3171-3172 (6)	MATE 3071 or MATE 3086 (3) MATE, COMP, or ESMA (3)*	MATE 3171 (3) MATE 3000 (3)	MATE 3005 (5)
Sciences (Biological/Physical)	QUIM 3001-3002 (8)	BIOL 3051-3052 (8) QUIM 3001-3002 (8)	CIBI 3031-3032 (6) FISI (incl. CIFI), QUIM, or GEOL (6) *	Electives (6)*	QUIM 3001-3002 (8)
Physical Education	Electives (2) *	Electives (2) *	Electives (2) *	Electives (2)*	Electives (2) *
Total number of credits	46	60	56	44	48

* see previous tables for possible course options

APPENDIX F

GE Templates



General Education (GE) Outcomes/Activities Matrix

Instructions:

Academic departments must complete this matrix and include it as a component of the department's Student Learning Assessment Plan by August 2007.

General Library and units under the Dean of Students must complete this matrix and submit it to OMCA, attention to the Director, by (date).

Name of unit: _____

UPRM GE Outcomes	Curricular Activities (including GE required courses)	Co-curricular Activities
Communicate effectively		
Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline		
Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology		
Apply ethical standards		
Recognize the Puerto Rican heritage and interpret contemporary issues		
Appraise the essential values of a democratic society		
Operate in a global context, relate to a societal context, and demonstrate respect for other cultures		
Develop an appreciation for the arts and humanities		
Recognize the need to engage in lifelong learning		
Develop information literacy skills		

E-mail: omca@uprm.edu

Fax: 787-806-0170

Campus Address: Residencia 3-B

Mailing Address: PO Box 9049
Mayagüez, PR 00681-9049



General Education (GE) Assessment Model Matrix

Instructions:

Academic departments must complete this matrix and include it as a component of the department's Student Learning Assessment Plan by August 2007.

General Library and units under the Dean of Students must complete this matrix and submit it to OMCA, attention to the Director, by (date). Add rows as necessary to accommodate all assessment methods used.

Name of unit: _____

Assessment Method	Source/ Developer	Purpose of the Assessment (GE Outcomes)	Frequency of Administration	Student Participation	Coordinating Office/Personnel

E-mail: omca@uprm.edu

Fax: 787-806-0170

Campus Address: Residencia 3-B

Mailing Address: PO Box 9049
Mayagüez, PR 00681-9049

APPENDIX G
Selected Survey Items from National Survey of Student Engagement
(NSSE)

Indirect Assessment of General Education Outcomes
Selected Survey Items from National Survey of Student Engagement (NSSE)

NSSE Survey Item		Aligned UPRM General Education Outcome
English	Spanish	
Academic and Intellectual Experiences In your experience at your institution during the current school year, about how often have you done each of the following?	Experiencias académicas e intelectuales Durante su experiencia en esta institución en el actual año académico, aproximadamente, ¿con cuánta frecuencia ha hecho lo siguiente?	
1b. Made a class presentation	Hacer una presentación en clase	a
1d. Worked on a paper or project that required integrating ideas or information from various sources	Trabajar en un informe o proyecto que requería la integración de ideas o información de distintas fuentes	b, IL
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	Incluir perspectivas diversas (diferentes razas, religiones, géneros, creencias políticas, etc.) en las discusiones en clase o en los trabajos escritos	g
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	Integrar conceptos o ideas de diferentes cursos al completar los proyectos o durante las discusiones en clase	b, IL
1l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	Utilizar medios electrónicos (listas cibernéticas, grupos de conversación, Internet, mensajes instantáneos, etc.) para discutir o completar una tarea	c
1m. Used e-mail to communicate with an instructor	Utilizar el correo electrónico ("e-mail") para comunicarse con el instructor	c
1v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	Tener conversaciones serias con estudiantes que difieren mucho de usted en términos de sus creencias religiosas, creencias políticas o valores personales	g
Mental Activities During the current school year, how much has your coursework emphasized the following mental activities?	Actividades mentales Durante el presente año académico, ¿cuánto han enfatizado sus cursos las siguientes actividades mentales?	
2b. analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	Analizar los elementos básicos de una idea, experiencia o teoría (por ejemplo, examinar un caso en particular o cierta situación a fondo teniendo en consideración sus componentes)	b, IL
2c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	Sintetizar y organizar ideas, información o experiencias en interpretaciones y relaciones nuevas y más complejas	b, IL
2d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	Tomar decisiones sobre el valor de la información, de los argumentos o de los métodos (por ejemplo, examinar la manera como otros han acumulado e interpretado la información y evaluar la solidez de sus conclusiones)	b, IL
2e. Applying theories or concepts to practical problems or in new situations	Aplicar teorías o conceptos en problemas prácticos o en situaciones nuevas	b, c, IL

NSSE Survey Item		Aligned UPRM General Education Outcome
English	Spanish	
Reading and Writing During the current school year, about how much reading and writing have you done?	Lectura y Escritura Durante el actual año académico aproximadamente ¿cuántas lecturas y escritos ha hecho?	
3a. Number of assigned textbooks, books, or book-length packs of course readings	Número de libros de texto, libros o lecturas extensas asignados	a
3c. Number of written papers or reports of 20 pages or more	Número de libros leídos por su propia cuenta (que no fueron asignados en clase) para el disfrute personal o para el enriquecimiento académico	a, b
3d. Number of written papers or reports between 5-19 pages	Número de informes o trabajos escritos de 5 a 19 páginas	a, b
3e. Number of written papers or reports of fewer than 5 pages	Número de informes o trabajos escritos de menos de 5 páginas	a, b
Additional Collegiate Experiences During the current school year, about how often have you done each of the following?	Experiencias colegiales adicionales Durante el actual año académico, ¿aproximadamente con qué frecuencia ha hecho lo siguiente?	
6a. Attended an art exhibit, gallery, play, dance or other theatre performance	Asistir a una exhibición o galería de arte, una obra de teatro, un baile u otro espectáculo de teatro	h
6d. Examined the strengths and weaknesses or your own views on a topic or issue	Examinar los puntos fuertes y débiles de su propio punto de vista sobre un tema o problema	b
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	Intentar entender mejor el punto de vista de otra persona imaginando cómo le parece un problema a esta persona según su perspectiva	g
6f. Learned something that changed the way you understand an issue or concept	Aprender algo que cambió la manera como entiende un problema o concepto	b, g
Institutional Environment To what extent does your institution emphasize each of the following?	Ambiente institucional ¿Hasta qué punto su institución enfatiza lo siguiente?	
10c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds.	Fomentar el contacto entre estudiantes de distintas procedencias económicas, sociales, raciales y étnicas	g
10f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	Asistir a eventos y actividades en el campus (conferencias especiales, presentaciones culturales, eventos deportivos, etc.)	h
10g. Using computers in academic work	Utilizar las computadoras para las tareas académicas	c

NSSE Survey Item		Aligned UPRM General Education Outcome
English	Spanish	
Educational and Personal Growth To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	Crecimiento educativo y personal ¿En qué medida su experiencia en esta institución ha contribuido al desarrollo de sus conocimientos y destrezas y a su desarrollo personal en las siguientes áreas?	
11a. Acquiring a broad general education	Adquirir una educación general amplia	Overall
11b. Acquiring job or work-related knowledge and skills	Adquirir conocimientos y destrezas relacionados con el trabajo	Mission, overall
11c. Writing clearly and effectively	Escribir clara y efectivamente	a
11d. Speaking clearly and effectively	Hablar clara y efectivamente	a
11e. Thinking critically and analytically	Pensar en forma crítica y analítica	b, IL
11f. Analyzing quantitative problems	Analizar problemas cuantitativos	c
11g. Using computers and information technology	Utilizar tecnología de computación e informática	c
11i. Voting in local, state, or national elections	Votar en las elecciones locales, estatales o nacionales	f
11j. Learning effectively on your own	Aprender efectivamente por cuenta propia	i, IL
11l. Understanding people of other racial and ethnic backgrounds	Entender a personas de distintas razas y procedencias étnicas	g
11m. Solving complex real-world problems	Resolver problemas complejos del mundo real	b, IL
11n. Developing a personal code of values and ethics	Desarrollar un código personal de valores y ética	d
11o. Contributing to the welfare of your community	Contribuir al bienestar de la comunidad	e, g

By the time of their graduation, UPRM students will be able to:

- a) Communicate effectively.**
- b) Identify and solve problems, think critically, and synthesize knowledge appropriate to their discipline.**
- c) Apply mathematical reasoning skills, scientific inquiry methods, and tools of information technology.**
- d) Apply ethical standards.**
- e) Recognize the Puerto Rican heritage and interpret contemporary issues.**
- f) Appraise the essential values of a democratic society.**
- g) Operate in a global context, relate to a societal context, and demonstrate respect for other cultures.**
- h) Develop an appreciation for the arts and humanities.**
- i) Recognize the need to engage in life-long learning.**

IL – Apply information literacy skills (see Table 1, page 5 of UPRM GE Assessment Plan)