

ASSESSMENT PLAN
ERNEST MARIO SCHOOL OF PHARMACY
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

MAY 2012

Educational Goals and Outcomes Assessment Plan Ernest Mario School of Pharmacy

INTRODUCTION

The Assessment Plan (the Plan) for the Ernest Mario School of Pharmacy affirms and supports our mission: dedication to excellence in healthcare and biomedical education, innovative, and visionary research and scholarship in the pharmaceutical and related sciences, exemplary clinical practice, and outreach and community services that address the needs of the citizens of New Jersey and society at large. Our plan is devised to evaluate our work in these priority areas and to identify effective means to improve our policies and programs to achieve our mission-related goals.

First and foremost, the assessment plan builds on the School's Strategic Plan 2009-2014. Our plan calls for monitoring, planning, and continuous improvement so as to:

- Enhance the PharmD program
- Establish dual degree programs
- Establish new degree programs
- Strengthen research initiatives
- Strengthen continuing education and outreach efforts
- Generate scholarship and fellowship resources
- Develop state-of-the-art research and instructional facilities
- Enhance collaborative teaching with faculty in other units and with healthcare professionals

First developed in 2008, the Plan has been modified as the School has refined its techniques and integrated assessment into more of its activities. The Plan was significantly revised in AY 2011-2012. The School's Educational Goals and Outcomes Assessment (EGOA) Committee refined the plan to ensure that all ACPE standards are being assessed, that appropriate attention is being given to areas identified for improvement, and that the culture of assessment is energizing the work of all faculty/student committees. The revised Plan and its accompanying Assessment Grid will be brought to the faculty for discussion and approval at the May 2012 Faculty Meeting.

Formal assessment at the School of Pharmacy focuses on the PharmD program, but the School regularly assesses progress on each of our strategic priority areas. The Assessment Plan Grid delineates items to be assessed, tools used, frequency of assessment, individuals or committees responsible for assessment and dissemination, and person/office responsible for developing and implementing plans for needed change. The Associate Dean for Assessment works with faculty to align the assessment activities with the implementation of the strategic planning priorities, so that for every initiative there is a continuous evaluation process and action that integrates assessment with improvement.

Faculty have the responsibility for interpreting raw data – scores and trends – in order to fashion programmatic improvements. Findings are shared and discussed at committee meetings and schoolwide faculty meetings. The School recognizes that sound assessment practices require data collection and analysis, structured feedback processes – including analysis of resources available – and continuous monitoring. Ongoing evaluations, including plans for 'closing the loop' are integral to the School's operations. They are essential for evaluating curricula,

proposed and existing programs, student and faculty achievement, student services, fundraising, physical plant and equipment, etc.

ASSESSMENT OBJECTIVES

Assessment of students:

- Demonstrate student's achievement of learning for various abilities:
 - Knowledge
 - Problem solving and critical thinking
 - Communications
- Determine satisfaction with School of Pharmacy experiences
- Evaluate effectiveness of professionalization
- Assess the success of student organizations

Assessment of faculty:

- Document and assess teaching abilities
- Document and assess scholarship abilities
- Document and assess service contributions
- Document and assess clinical contributions (for clinical faculty)

Assessments and program evaluations:

- Evaluate the effectiveness of didactic and experiential programs
- Evaluate the relevance of current topics with existing needs for the pharmacy profession
- Assess the new dual degree programs
- Evaluate policies and procedures for the pharmacy professional program, including effectiveness of student admission decisions

Assessment of external stakeholders' experience and perceptions:

- Evaluate satisfaction with School graduates
- Evaluate satisfaction with student experiential education
- Determine perceptions of quality and ranking of School

The Assessment Grid delineates items to be assessed, tools used, and frequency of assessment; and identifies individuals, committees, or offices responsible for assessment. The findings are shared and discussed at committee meetings, schoolwide faculty meetings, and in an annual report.

ASSESSMENT RESPONSIBILITIES

Assessment responsibilities within the School lie with several groups. Faculty are taking on increasing levels of responsibility, primarily through their work on the School's standing and *ad hoc* committees. Students also play key roles; student representatives are members of committees, where they provide insightful perspectives to committee discussions. They also serve as liaisons to the School's many student organizations and the Pharmacy Governing Council.

Specific responsibilities of each committee are described below.

Educational Goals and Outcomes Assessment Committee (EGOA)

The EGOA is responsible for oversight of assessment practices, including monitoring and updating the School's Assessment Plan and supporting accreditation-related self-study efforts. The committee is charged with oversight of assessment practices and serves as a clearinghouse for assessment work in standing and *ad hoc* school committees, student forums, alumni meetings, etc. The EGOA solicits and evaluates information provided by faculty committees and student groups; considers information it receives from individual faculty, staff, and students; evaluates responses to formal assessment tools, such as AACCP curriculum quality surveys; monitors state board pass rates; compares student and faculty achievements against regional and national norms (e.g. NIH research awards); and evaluates more qualitative measures, such as awards/recognitions achieved by students and faculty at national pharmacy meetings.

The EGOA works with individual committee chairs to jointly develop plans and outcome assessments that reflect appropriate monitoring and development of academic programs for faculty and students. Based on the analysis of this information the EGOA makes recommendations to the Dean's office and the respective committees. The EGOA also provides reports to the faculty on its findings and recommendations. Its annual report includes:

- A summary of findings regarding the extent to which outcome abilities are being achieved by our students.
- Identification of areas where the Doctor of Pharmacy program is successful in achieving its educational mission.
- Identification of areas where improvements are needed with respect to achievement of outcome abilities or other components of the program mission.
- Opportunities to focus for the next 12 months.

The committee reviews reports provided by individual committees that include assessments, recommendations, implementation of recommendations, and assessment of outcomes and summarizes these in its annual report.

Budget and Policy Committee

The Budget and Policy Committee periodically reviews the work of the EGOA to ensure comprehensive assessment practices. This committee, comprised of all the department chairs and graduate program directors, as advisory to the Dean, is responsible for identifying and earmarking appropriate resources to close the loop on assessment recommendations.

Curriculum Committee

The Curriculum Committee is responsible for evaluation of the existing curriculum and for consideration of new courses, modifications in course requirements, dual degree programs, and mapping courses to the professional skills identified in the School's set of Ability Based Outcomes. Assessment includes periodic review of existing courses through analyses of course including syllabus, student grade distributions, evaluation of the identified course outcomes, student course evaluations related to achievement of these outcomes and data on student achievement related to core course outcomes. The Committee also collects data on quality of instruction from the Student Instructional Rating Survey. This Committee considers proposals for new or restructured courses and programs (such as dual degree programs). The Curriculum Committee brings all proposals for changes in the curriculum, major restructuring of core and elective courses, new courses, and new degree or dual degree programs to the faculty for formal consideration and approval on a regularly scheduled basis (every three years). The Curriculum Committee makes recommendations for course modification to core course faculty

based on its evaluation of curricular mapping activities and assessment data provided by the EGOA. The Committee summarizes its finding in annual reports to the faculty. The Committee provides assessment activities and outcome reports to the EGOA biannually.

Scholastic Standing Committee

The Scholastic Standing Committee is responsible for recommending standards for academic achievement for graduation, honors, probation, dismissal; etc. It is also responsible for reviewing the records of students who fail to meet minimum established standards, devising remediation from one year to the next in the pre-pharmacy program and in the transition to the professional program. After tightening progression standards, the Committee has been able to flag students in academic difficulty and help them to get back on course or modify their career plans. The standards are annually assessed to confirm that they are serving as adequate indicators of student potential. The Committee meets immediately prior to the fall and spring semesters and graduation to consider the records of those students who have failed to meet standards. The Committee provides an annual summary of activities and process evaluations to the EGOA. The Committee provides the EGOA with annual reports on trends in progression and graduation rates.

Admissions Committee

The Admissions Committee is responsible for policies and procedures for admitting students who have the requisite skills to succeed here. The Committee considers policy issues related to admission to the School of Pharmacy (to the first pre-professional year, immediately after high school), transfer into the professional program from other schools, and progression of continuing pre-professional students into the professional program. After evaluating data on student progression, this Committee periodically recommends modifications in admissions criteria and/or requirements. The Committee provides an annual summary of assessment to EGOA that includes the rationale for changes implemented and outcomes to assess improvement.

Other committees, such as **Library and Instructional Technology**, **Continuing Education**, **Honors Research**, and **Student Advising** provide data annually to EGOA for further discussion, planning, and recommendations for improvements in policy and practice. These committees may also report their findings directly to the faculty, the Associate Dean for Assessment, or the Dean for further action.

Faculty Assessment Responsibilities

Faculty are responsible for reviewing and regularly updating their course materials and designing instructional and evaluation approaches to ensure that students are successful in achieving stated outcomes. Faculty are also responsible for including learning objectives in their syllabi and ensuring that their evaluations of student achievement are based on these objectives. Faculty meet regularly to assure the coordination, sequencing, and integration of curricular content and to discuss the use of optimal teaching methods.

Faculty quality is regularly assessed in yearly reviews with department chairs, and in periodic tenure and promotion or reappointment conferences. Items to be considered include: teaching evaluations, grant funding, peer-reviewed publications, service to school and larger community, etc. Preceptor quality is also assessed through student evaluations and communications with School of Pharmacy staff. Faculty members are also responsible for pursuing professional development opportunities intended to improve their assessment-related knowledge and skills.

Student Self-Assessments

Students are required to participate actively in didactic and experiential class work, master course material as assigned, and submit course assignments in a timely manner. They maintain a portfolio throughout their experiential rotations, complete requested reflections related to the portfolio and other course-related assignments, participate in classroom/laboratory assessments to the best of their ability, and respond to requests for completion of survey instruments related to assessment, including course evaluations. Students are and are responsible for monitoring and assessing their scholastic progress.

Office of the Dean

The Dean's Office coordinates overall assessment activities in the School, which includes monitoring and reporting to both internal and external stakeholders. The Dean's Office provides support for and coordination of faculty development activities related to student performance assessment and program assessment and monitors the work of the EGOA. As part of its assessment responsibilities, the Dean's Office monitors and evaluates opportunities for new scholarship and fellowship resources. The Dean's Office also evaluates School facilities for teaching and research. The Dean's Office provides ongoing oversight to the development and anticipated implementation of a plan to erect a major addition to the pharmacy building for state-of-the-art research and instructional facilities

ASSESSING STUDENT LEARNING AND ACADEMIC PROGRAMS

The Plan calls for assessment of the student learning process and outcomes, as well as assessment of the program itself (curriculum, student services, faculty, research, clinical experiences, outreach, etc.). The School has well-established learning goals for each component of the PharmD program, charted in an Ability Based Outcomes (ABO) curriculum map. These ABOs are based on standards set by the Center for the Advancement of Pharmaceutical Education (CAPE) Educational Outcomes for pharmacy curricula and the National Association of Boards of Pharmacy (NAPLEX) Blueprint (the document which guides the development of the national licensing exam), as well as the Revised 2007 Standards of the Accreditation Council for Pharmacy Education. The map identifies the specific skills that students master in each course. Viewed as a whole, the map provides for the full set of skills for patient-centered care that students must develop to be effective pharmacists.

In 2008, all faculty at the School were asked to contribute to the development of the curricular map by evaluating their own courses and mapping their learning objectives to the ABOs. The resulting map, which is updated annually, includes all required courses and clinical rotations.

The Plan calls for continuous improvement in the ABO map. In AY2011-2012, the Curriculum Committee, in close consultation with the faculty, is mapping the professional electives. Once this cycle is completed, the map will be linked to our on-line curriculum guide so that students can easily see how their coursework is related to their skill development. The map is a powerful assessment tool because it enables the School to use feedback from faculty and students to refine coursework, through analysis of the curriculum, coordination between departments and course coordinators, and updates to the materials. Data are gathered directly from faculty and students in committee meetings, in-house surveys, and town hall meetings; and from AACP curriculum quality surveys. Every year, the Curriculum Committee will ask course coordinators to review their learning objectives and assess whether they are properly mapped on the ABO chart. This process will provide the Committee with data to evaluate the need for curriculum and/or course modifications.

Student progress is assessed in each course, through the traditional grading process. But more importantly for the development of professional skills, students develop a portfolio (now entirely on-line) which includes students' self-assessment reports and assessment by full-time faculty and volunteer preceptors after their IPPE and APPE experience. Working with the APhA, the School is modifying the existing assessment tools included in the e-resource, PharmacyLibrary. The Plan calls for expanded use of this resource, for student-directed preparation for licensing exams, and for faculty-directed learning outcome and programmatic assessments of student knowledge in specific practice areas.

Experiential learning is critical to the success of the PharmD program. The recently enhanced requirement for professional rotations (now eight five-week advanced pharmacy practice experiences) is being closely monitored. In addition, the School is strengthening the assessment value of the required student portfolios. These collections of student work, reflections, and assessments are now in an electronic format, which will facilitate their use for broader programmatic assessments, in addition to improving feedback and evaluation of individual students. The School is engaging faculty more deeply in the assessment process and working with Rutgers' Office of Instruction and Research Technology to expand the assessment capability within the e-portfolios.

The Plan also calls for evaluation of curricular and co-curricular innovations, such as assessments of new professional electives, introduction of immunization training in our Physical Assessment course, new requirement of eight five-week APPE rotations, modifications in student advising, creation of a Pharmacy Research Day, and programs fostering inter-professional experiences. As each of these programs is instituted, the Assessment Plan calls for the identification of methods and individuals or groups responsible for evaluation.

ASSESSING ACHIEVEMENT OF RELATED STRATEGIC PLANNING GOALS

The School has recently developed three dual degree programs (PharmD/MBA, PharmD/PhD, and PharmD/MPH) to broaden options for our graduates. Each of these programs will be closely monitored to determine impact on employability of graduates, student satisfaction, and to ensure that it does not negatively impact successful completion of the PharmD program. Program directors will report to the EGOA annually with regard to: student interest, student engagement, student success, organizational issues, relationship with cooperating units, etc. In addition, a new degree program (M.S. in Health Economics and Outcomes Research) is under development and may become a dual degree option for School of Pharmacy students. If so, students in that program will also be closely monitored with regular reports to the EGOA.

Enhanced research at the School of Pharmacy is another important strategic planning goal with potential impact on the PharmD program. Recent enhancements to the Honors Research program provide PharmD students with increased opportunities for research. The program is being closely monitored to determine whether the new structure provides better opportunities and higher completion rates on honors research projects. Research is assessed by means of reports on research funding, including proposals submitted, awards granted, involvement of new faculty, program grants, multidisciplinary grants, etc.

The School's Plan also calls for assessment of the PhD, master's, residency, and fellowship programs. The PhD and master's degrees are administered and awarded by the Graduate School – New Brunswick. Given the university's strong commitment to a culture of assessment, the School of Pharmacy is working collaboratively with the Graduate School to formalize

assessment plans for the three graduate programs affiliated with pharmacy: Pharmaceutical Science, Medicinal Chemistry, and Toxicology.

The Plan also calls for the assessment of its residency and fellowship programs. This includes faculty assessment, student self-assessments, and evaluation of post-residency and fellowship career placement.

Assessment processes are being integrated into other facets of work at the School of Pharmacy – as the School seeks to strengthen faculty development, faculty research, community outreach, continuing education, clinical practice, and inter-professional collaborations. Information gathered in the evaluation of these efforts is used to strengthen future programs. The ongoing processes of evaluation, planning, and amelioration are well integrated into policies and practices at the Ernest Mario School of Pharmacy.

Ernest Mario School of Pharmacy

ASSESSMENT GRID

Area/Program Assessed	Tools/Methods of Assessment	Timeline	Data Recipient/Data Analysis	Recipient of Analysis
STUDENTS				
Knowledge	Course exams, assignments	Continuous	Course faculty	Individual students Course faculty
	Student data: # of students with D's and F's, # of students on academic probation, # of students dismissed; grade distributions	Each semester	Scholastic Standing Committee	Office of the Dean
	# of students graduating, NAPLEX and MJPE pass rates	Annually	Office of the Dean	Faculty
	Electronic experiential portfolio	Biannually during P4 year	Experiential Committee	Individual students
			Faculty	Pharmacy Practice faculty, Experiential Committee
	APPE rotation performance evaluation	Every 5 week rotation during P4 year	Preceptor Individual students	Pharmacy Practice faculty Experiential Committee
	IPPE rotation performance evaluation	After P1 and P2 IPPE rotations	Preceptor Individual students	Pharmacy Practice faculty Experiential Committee
Problem solving & critical thinking	Case studies	Continuous	Course faculty	Individual students, course faculty
	Assignments			
	Course exams			
	Clinical skills local, regional, and national competitions	Annually	Faculty	Faculty
	Honors research & other research achievements	Annually	Honors Research Committee	Faculty
Verbal communications	Presentations, patient counseling, health literacy initiatives	Continuous	Faculty	Faculty
			Individual students	
Written communications	Assignments	Continuous	Faculty	Faculty
			Individual students	

Ernest Mario School of Pharmacy

ASSESSMENT GRID

Area/Program Assessed	Tools/Methods of Assessment	Timeline	Data Recipient/Data Analysis	Recipient of Analysis
Student experience	Student Advisor Program	Fall of P1 year	Faculty	Student Advisory Comm
			Individual students	Office of the Dean
			Faculty advisors	
	AACP Graduating Student Survey	Annually in spring of P4 year	EGOA	Office of the Dean
	School Open Forum	Continuous	Pharmacy Governing Council	Office of the Dean
			Office of the Dean	
	Exit interviews (pilot)	Month of graduation	Office of the Dean	Dean, Curriculum Comm, EGOA
Professionalism	Experiential assessments	End of each IPPE and APPE rotation	Preceptor	Experiential Committee
	Reflective portfolio	End of IPPEs and APPEs	Faculty	Experiential Committee
Success of student organizations	Annual reports	Annually	Faculty advisors	Office of Academic Development
			Student organizations	Student organizations
FACULTY				
Teaching quality	Teaching evaluations (Student Instructional Rating Survey)	End of semester	Individual faculty and department chair	Individual faculty
	Peer reviews			Department chairs
	Achievement of course outcomes	End of semester	Course faculty	Department chairs
			Students	Faculty
Research and Scholarship	Report to AACP	Annually	Director of Research and Grants	Dean and faculty
Service Contribution	University Reporting Systems	Every 1-5 years	Faculty and Chairs	Chairs and Dean

Ernest Mario School of Pharmacy

ASSESSMENT GRID

Area/Program Assessed	Tools/Methods of Assessment	Timeline	Data Recipient/Data Analysis	Recipient of Analysis
Clinical Contributions	University Reporting Systems	Every 1-3 years	Faculty and Chair	Dean
Faculty experience	Faculty meetings	Each semester	Faculty	Department chairs, Dean
	AACP Faculty Survey	Every 3 years	Faculty	Office of the Dean
PROGRAMS				
Effectiveness of didactic and experiential programs and Relevance of current topics	Formal course evaluations	Every 3 years	Curriculum Committee	Faculty
	Curriculum mapping	Continuous	Curriculum Committee	Faculty
	Self-study accreditation reports	Cyclical and as requested	Self-study committees	Dean
	AACP Alumni Survey	Every 3 years	Development Office, Curriculum Committee	Office of the Dean, EGOA
	Attrition rates	Annually	Office of the Dean	Office of the Dean
Dual degree programs	Admissions, success in program, professional outcomes	Annually	Office of the Associate Dean for Assessment	Dean and faculty
Pre-pharmacy preparedness and effectiveness of student admissions decisions	Analysis of university admissions data	Annually	Admissions Committee, Scholastic Standing Committee	Office of Academic Services, Office of the Dean
	Course grades in biology and chemistry courses and GPAs for PP1 and PP2 students			
	Interviews and written essays for PP2 students			
	Interviews and written essays for transfer students			
Effectiveness of Educational Opportunity Fund programs	Reports on each student; aggregate data	Annually	Office of Student Development/EOF	Office of the Dean

Ernest Mario School of Pharmacy

ASSESSMENT GRID

Area/Program Assessed	Tools/Methods of Assessment	Timeline	Data Recipient/Data Analysis	Recipient of Analysis
EXTERNAL STAKEHOLDERS				
Satisfaction with School graduates and experiential education	AACP Preceptor Survey	Every 3 years	Experiential Committee	Pharmacy Practice faculty, EGOA
Perceptions of quality and ranking of School	Benchmarking data from AACP	Annually	Office of the Dean	Faculty
				Office of the Dean
	Verbal and written feedback	Continually	Dean's Leadership Council	Dean
		Continually	Industry Advisory Board	Dean
Alumni services	AACP Alumni Survey	Every 3 years	EGOA	Dean and faculty
	Informal interactions at alumni events	Continually	School Development Officer	
Continuing professional education programs	Program evaluations	After each program	Continuing Education Committee	Dean and faculty
	Report on continuing education programs	Annually		
OTHER				
Compliance with all ACPE standards	Review by ad hoc Accreditation Concerns Committee	Every two years	Dean	Faculty
Post-graduate residency/fellowship	Evaluations of residencies and fellowships offered to graduating students	Annually	Residency/Fellowship Preceptors	Office of the Dean
Library and Instructional technology resources	Faculty survey on library and IT	Every 2 years	Library and Instructional Technology Committee	Dean and faculty
	AACP Graduating Student Survey	Annually		
Other skills and competencies (ad hoc issues identified by faculty for assessment)	Methods to be determined, depending on assessment needs	To be determined	To be determined	

Ernest Mario School of Pharmacy Assessment Plan Flow Chart

