Graduate Council Statement of Guidelines
Program Learning Outcomes for Graduate Programs
May 2013

As part of the WASC reaccreditation process, the Graduate Council of the Academic Senate has engaged in a discussion of how we currently identify and assess outcomes for graduate programs. The Graduate Council is charged with reviewing all proposed and existing graduate programs to ensure that each provides participants with the opportunity to develop a defined range of skills and put those skills into practice, as appropriate in each discipline, in research, design, or engaged scholarship. Graduate education is generally distinguished from undergraduate education by an emphasis on self-directed development that, while involving specific prescribed coursework as defined by faculty, primarily is oriented to equipping successful students with the capacity to initiate their own advanced research or apply knowledge to the solution of real-world problems. It is a characteristic of graduate education that there is a capstone, be it a final thesis, comprehensive exam, master's project, or the doctoral dissertation that demonstrates that the student has developed this capacity.

In assessing learning outcomes, consequently, the Graduate Council looks to programs for definition of the correct balance of prescribed coursework, for the form of the final research product, and for other measures of mastery of skills that have been identified as critical for the specific discipline and degree. This document is intended to engage faculty leaders of graduate programs in defining those outcomes that, while shared by many graduate programs, are particularly pertinent to the specific program; and to affirm what measures exist of the effectiveness of student mastery in those areas.

Provided below are six learning outcome standards that the Graduate Council has identified as relevant to graduate programs at Berkeley.

Part 1: Graduate Program Outcomes (GPOs)

Learning outcomes may be thought of as the mastery of skills and their application in practice, designed to allow graduate students to demonstrate their qualifications for multiple career paths, including but not limited to employment in research universities (as faculty, full-time researchers, or administrators); research positions in government- or privately- sponsored labs or institutions; employment in primarily undergraduate institutions or in secondary education; entrepreneurial enterprises, industry, business, consulting, non-profit institutions, or government on the local, state, or federal level. The main capacities and skills provided by graduate education that lead to these post-graduate opportunities involve expertise in research and teaching, which can be further defined as including some or all of the following areas (as well as others that might be defined by program faculty):

GPO 1: Advanced Knowledge: graduate students will have and be able to apply advanced knowledge in specialized areas defined by their graduate program

GPO 2: Methods: graduate students will have and be able to apply skills in appropriate methods of analysis, whether quantitative or qualitative, or both, to collect and integrate information in ways consistent with the highest standards of their discipline

GPO 3: Research: graduate students will conduct research that results in an original contribution to knowledge, according to the standards of their discipline, including as appropriate both independent and collaborative research, and in conformity with all standards for responsible conduct of research

GPO 4: Pedagogy: graduate students will participate in training for teaching and apply their skills in the classroom consistent with their disciplinary norms, in undergraduate or other settings in their own or other disciplines

GPO 5: Communication: graduate students will have and apply skills in scholarly communication, applied in oral, text, and digital formats consistent with the highest standards of their discipline

GPO 6: Professionalism: graduate students will engage with the structure of their discipline and their intended career placement as professions, including the legal and ethical dimensions of these professions and the responsibilities involved to a variety of stakeholders

Part 2: Graduate Program Outcome Assessment Measures

The Graduate Council offers the following guidelines as possible aggregate measures academic units may employ to assess the quality of their degree programs in terms of student success in attaining the GPOs listed above. These are guidelines only. It is assumed that some outcomes and measures may not be applicable and that academic units may wish to substitution their own program outcome/assessment standards.

Graduate Learning Outcomes	Degree GPO Assessment Measures
GPO 1 – Advanced Knowledge	1.1 student evaluations of content courses 1.2 pass rates of pre-candidacy projects or preliminary exams 1.3 completion rates of comprehensive exams/theses/master's projects/degrees 1.4 pass rates of qualifying examination/ratio of retakes 1.5 completion rates of dissertations/degrees
GPO 2 – Methods	2.1 student evaluations of methods and data analysis courses 2.2 approved prospectuses 2.3 pass rates of qualifying exam/ratio of retakes 2.4 extent of students writing competitive research grant/funding applications 2.5 completion of theses/dissertations within normative time

GPO 3 – Research	3.1 student evaluations of courses (including seminars and workshops on Responsible Conduct of Research topics) 3.2 extent of student participation in professional conference presentations/research colloquia 3.3 peer-reviewed publications, professional proceedings 3.4 completion rates of capstone projects/theses/dissertations; ratio of retakes 3.5 placement
GPO 4 - Pedagogy	4.1 extent of teaching/tutor experience provided 4.2 faculty observations and field practicum evaluations (K-12 settings) 4.3 completion of online ethics course 4.4 teaching evaluations 4.5 pedagogy seminar evaluation 4.6 student participation in certificate program 4.7 student participation in GSI Center workshops 4.8 placement
GPO 5 – Communication	5.1 quality of course papers and presentations 5.2 professional conference participation 5.3 research colloquia participation 5.4 group projects experience 5.5 completion of preliminary/qualifying exams; ratio of retakes 5.6 completion of competitive grant proposals 5.7 recognition through professional awards for conference papers, theses, dissertations 5.8 completion of thesis/dissertation
GPO 6 – Professionalism	6.1 participation in professional development activities (including service activities) 6.2 participation in Responsible Conduct of Research-related seminars/workshops (ethics education) 6.3 CITI course requirements 6.4 mentorship training/practice 6.5 licensing preparation

Part 3: The Curricular Map

The Graduate Council's GPO and Assessment Measures guidelines are intended to yield a curricular map for each terminal program along the general format of the sample map below. However, academic units may wish to establish their own derived standards along these lines.

The map coordinates the GPO with programmatic requirements in terms of *introductory* (I) or *advanced* (A) student learning expectations. Academic Senate and departmental requirements are primary; course content is secondary as is appropriate for learning at the graduate level.

The following example is for a Ph.D. degree:

Program Requirements for the Ph.D. in "X"	GPO1	GPO2	GPO3	GPO4	GPO5	GPO6
Foreign Language Requirement	I, A		I,A			
Teaching/Pedagogy Course			I,A	I,A		I,A
Preliminary Field Exams	A	I	I		I	
Qualifying Examination	A	A	A		A	
Prospectus	A	A	A		A	
RCR/Disciplinary Ethics Workshop						A
Dissertation	A	A	A		A	
Courses Required	**GPO1**	**GPO2**	**GPO3**	**GPO4**	**GPO5**	**GPO6**
Grad Core Course 1	I	I			I	
Grad Core Course 2	A	I				
Grad Core Course 3	A	A				
Grad Core Course 4	A	A				
Grad Core Course 5	A	A			A	
Grad Core Course 6	A	A			A	
Grad Core Course 7	A	A	A		A	
Four Elective courses required outside major	I,A	I,A			I,A	

Part 4 – Faculty Analysis of Program Assessment Data

Given the strength of Berkeley's external programmatic review process, the Graduate Council finds cyclical program review (by either the Program Review Oversight Committee or, if a Graduate Group, by the Graduate Council) to be the fundamental mechanism of degree programmatic outcome and student success assessment. This is bolstered by two factors. Firstly, Graduate Division annually supplies program statistics concerning student outcomes and student views to each degree program, with encouragement for programmatic self-reflection by faculty and students. Secondly, future faculty FTE requests are required to be contextualized in terms of the program review outcome after the review has concluded.

Moreover, the Graduate Council encourages each academic unit to institute its own systematic internal program review mechanism to evaluate data from its GPO assessment criteria as well as the annual program statistics supplied by the Graduate Division. These reports provide aggregate and comparative data in terms of admissions yields, enrollment and attrition, degree completion, placement, and various student satisfaction measures that assist in assessing GPOs and complement departmental data collection. The Graduate Council encourages academic units to incorporate these annual program statistics into their on-going internal discussions, curricular reviews, strategic planning and faculty FTE requests.

Part 5 – Evaluation and Assessment of GPO Process

In the interest of finding the most effective and least burdensome method of assessing GPOs, the Graduate Council and Graduate Division will evaluate the structure mapped out here and its implementation at the scale of academic units periodically.