

Program Assessment Plan

Department Name: Biology

Major: MS BIOLOGY

Student Learning Goals:

1.	Learn and apply the scientific method of analysis.
2.	Acquire and utilize biological information relevant to their general area of biology (i.e. molecular/cellular biology, ecology, or evolutionary biology).
3.	Conduct original research to the satisfaction of their thesis committees.
4.	Report results based on their original research and convey advanced biological principles both orally and in writing.
5.	Understand current theory, scientific tools, and techniques relevant to their area in biology.
6.	Teach effectively if on a graduate teaching assistantship.

Assessment Plan:

Assessment Measure:	Goals Addressed: (list by number)	How is the information used?
<i>Direct Measures</i>		
a) Performance in downstream courses	1,2,3,4,5	Each semester in each downstream course, instructors informally assess the preparation of students entering from upstream courses. For example, are Biometry II students adequately prepared by Biometry I? When problems are found, then discussions are initiated to identify and implement steps that can be taken to change the upstream course to make it more effective. As an example, lack of preparation for Biometry II caused us to examine the teaching of Biometry I and to institute changes in that course.
b) Graduate Studies Committee's Annual Progress Assurance Form (to assess each graduate student's progress, course work, and teaching performance)	3,6	Form reviewed annually to ensure satisfactory progress of each student. If a trend appears that indicates systematic problems with the program (such as too many students not making progress) then actions are taken. For example, we are considering the implementation of a policy prohibiting our teaching assistants from holding second jobs; we've found that individuals who hold second jobs invariably progress substantially more slowly than students who are only Teaching Assistants.
c) Graduate student conference presentations, publications, and grants	1,2,3,4,5	Faculty members informally assess the number and quality of presentations and publications on a continuing basis. If a decrease in quality and/or quantity were to be noticed, then actions would be taken.
d) Assessment of student evaluations of TA's	6	Assessed middle and the end of each semester. A prevalence of poor evaluations would result in actions being taken in the short term to modify the behavior of individual TAs and in the program being examined to determine if programmatic changes could remedy the problem in a systematic way. For example, we've instituted mid-term evaluations to give feedback at a time that it can actually do some good in affecting quality of teaching by TAs.

Assessment Measure:	Goals Addressed: (list by number)	How is the information used?
e) Thesis proposal and seminar	1,2,5	Faculty members informally assess the quality of presentations on a continuing basis. If a decrease in quality and/or quantity were to be noticed, then actions would be taken.
f) Thesis preparation, exit seminar, and defense	1,2,3,4,5	Faculty members informally assess the quality of theses on a continuing basis. If a decrease in quality and/or quantity were to be noticed, then actions would be taken. For example, in response to a poor quality thesis, the make up of the committee of that student was examined and found to be at odds with department policy. The action taken is that office staff members are compiling a list of all graduate committee memberships for examination by the Graduate Coordinator.
g) External Review Boards <ul style="list-style-type: none"> • Five-Year Program Review • INBRE • Other External Reviews 	4	Comments by external reviewers are used as the basis for proposing and designing changes to our program
h) Opinions of Scientific Community (from research conferences, manuscript reviews, comments on students entering other graduate programs or employment)	4	On an informal basis we use these measures to give a general indication of the strength of the program. If problems were to be noticed, we'd design and implement changes in the program to remedy the problems.
<i>Indirect Measures</i>		
i) Alumni Survey	1,2,3,4,5	If students' perception of learning goals and of the quality of their education indicates problems, then actions would be taken.
j) "Where are they now?" which is our analysis of success at gaining employment and pursuing additional education	1, 2, 3, 4, 5	Success of entry to grad programs or employment is informally assessed to give indication of the strength of our program. If we were to determine that there were problems, then we'd design and implement appropriate changes in the program.

Updated: September 15, 2005