

EXAMPLE: A Graduate Program Outcomes Assessment Plan and a Sample Rubric

Program: Biology, Ph.D. – Tally-Ho University

Student Learning Outcomes

By completion of the Ph.D. program in Biology, a student will:

1. demonstrate broad knowledge of his/her field.
2. critically analyze published research results in his/her area of study.
3. conduct original research on a significant biological problem.
4. effectively communicate and defend results of research to peers and broader scientific audiences.

Activities are well-aligned with outcomes. The rubric used at dissertation defense is included, however, there is no indication of how the Qualifying and Comprehensive exams are evaluated.

Assessment Activities

The Biology Ph.D. program requires a student to complete a written qualifying exam, written and oral comprehensive exams based upon coursework and the student’s proposal for research, and a defense of the doctoral dissertation. These already-existing assessment activities are also used to gather program level assessment data.

Assessment Activities	Outcome 1: Knowledge of the field	Outcome 2: Critical analysis of research in the field	Outcome 3: Conduct original research	Outcome 4: Communication and defense of research
Written Qualifying Exam	X			
Written & Oral Comprehensive Exams	X	X		
Written dissertation & Oral defense of the dissertation		X	X	X
Exit Survey	X	X	X	X

The rubric in Appendix A is used to assess outcomes 2, 3, and 4 at the student’s dissertation defense. The rubric was developed by the faculty. Each faculty committee member completes this rubric after the student’s defense. The faculty chair of the committee submits the scored rubrics to the graduate program coordinator in the department. Once each year, at a late spring or early summer faculty meeting, the summarized data are reviewed by the faculty. The table below (Assessment Findings) shows the summary that our faculty discussed after using the rubric for two years. The Online Exit Survey for Doctoral students has been developed (Appendix B) and will be administered by the coordinator for the first time this spring.

Assessment Findings

Findings are incomplete. There are no findings reported for Outcome 1, nor are there any indirect measure findings.

Summarized Rubric Averages from the Dissertation and Defense Assessment Activity

Criterion	Outcomes Measured	Average Score for Year 1 (n = 5)	Average Score for Year 2 (n = 6)
Clearly stated problem and analysis of literature.	#2	2.8	2.8
Appropriate study design.	#3	4.7	4.1
Adequate data analysis.	#3	3.3	3.0
Well written dissertation.	#4	4.2	3.9
Well defended interpretations and conclusions.	#4	3.5	3.5
Ability to extrapolate to broader implications.	#3 & 4	4.0	2.5
Anticipates next level of inquiry.	#3 & 4	2.4	2.6

Changes in Response to Findings

The faculty discussion at the end of Year 2 resulted in agreement that we were dissatisfied with the drop in averages for “appropriate study design” and “ability to extrapolate to broader implications”. We therefore made the decisions to: (1) revise our journal club format to require students to critique the study design in the papers presented each week, (2) agree to give more attention to study design when discussing papers during lab meetings, and (3) commit to coaching our graduate students on “extrapolating their findings to broader implications.” The faculty also decided to develop rubrics for our program’s other assessment activities, the Qualifying and Comprehensive exams.

Assessment Rubric

Appendix A

Assessment Activity: Dissertation & Defense

Student Name: _____

Date: _____ Dissertation Committee Member: _____

Directions: Evaluate this student's written dissertation and oral defense of the research with a score between 1 (Needs Improvement) and 5 (Excellent) for each of the criteria described below. Below each score and statement, briefly comment on the rationale if your score is less than 5. Turn in your completed rubric to the committee chair before leaving the defense.

Score (1 – 5)

_____ The dissertation is well written.

_____ The problem is clearly described with adequate critical analysis of the related research literature.

_____ The research design for studying the problem is appropriate.

_____ The data are adequately analyzed.

_____ The conclusions drawn from the analysis are well defended. The student adequately responds to challenges to his interpretations and conclusions.

_____ The student demonstrates the ability to extrapolate his/her research to broader implications for the field.

_____ The student demonstrates the ability to anticipate the logical next level of inquiry.

Appendix B

Place an "X" in each row to indicate the degree to which your doctoral program provided you the opportunity to:

	Excellent	Good	Neutral	Fair	Poor	Comments
acquire broad knowledge in my field.						
develop skills in critical analysis of research literature in the field.						
design and conduct original research on a biological problem.						
Improve my ability to defend research results to scientific peers.						

- 1) Please describe learning opportunities for other specific skills or knowledge that this academic program should improve upon.

- 2) Please provide us with your email and mailing address for future communications from our Biology Department.

Still have questions? Contact us:



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