

Student: \_\_\_\_\_

Date: \_\_\_\_\_

Committee member: \_\_\_\_\_

## **Oral Candidacy Exam: Student Learning Outcome Assessment**

### ***Biology – PhD***

**Learning Outcome 1:** develop skills to conduct independent research capable of generating multiple peer-reviewed publications as demonstrated by:

Holistic assessment will include assessment of:	1 = Exceeds Expectations	2 = Meets Expectations	3 = Below Expectations	4 = unacceptable
Ability to survey scientific literature appropriate for dissertation research topic				
Ability to generate hypotheses and propose appropriate experimental design				
Ability to formulate expected results and conclusions				
Ability to propose appropriate statistical analyses				
Ability to propose future research questions				

**Learning Outcome 2:** demonstrate depth of knowledge about specific subdiscipline related to dissertation research topic

	1 = Exceeds Expectations	2 = Meets Expectations	3 = Below Expectations	4 = unacceptable
Knowledge about specific subdiscipline related to dissertation research topic				

**Learning Outcome 3:** demonstrate breadth of biological knowledge related to required core courses, as demonstrated through knowledge of:

	1 = Exceeds Expectations	2 = Meets Expectations	3 = Below Expectations	4 = unacceptable
Biochemistry				
Cellular Biology				
Molecular Biology				
Statistics and Experimental Design				

**Learning Outcome 4:** develop presentation and communication skills, as demonstrated by the ability to present a PowerPoint presentation of the Dissertation Research Topic that:

Holistic assessment will include assessment of:	1 = Exceeds Expectations	2 = Meets Expectations	3 = Below Expectations	4 = unacceptable
Provides sufficient background information to justify the proposed project				
Clearly presents testable hypotheses				
Clearly presents the proposed experimental design and statistical analyses				
Clearly outlines the expected results and possible pitfalls of the proposed research				
Provides an overall clearly conceived and designed dissertation project				