

**Annual Key Assessment Findings and Curricular Improvements**  
**Department Biology**  
**Master's Program in Biology**  
**Doctoral Program in Biology**

**Key Assessment Findings**

In the five-year period beginning AY10-11, we have had 35 Master's and Doctoral students in Biology take and pass their comprehensive examinations (Table 1) except for one Doctoral student who retook part of the examination and passed it in Fall of 2016. Greater than 86% of our graduate students (Table 2) met or exceeded expectations in the three areas that we assess: curricular content, written presentation, and analysis skills.

Table 1. Graduate Comprehensive Examination Data from AY2010-15

**GRADUATE COMPREHENSIVE EXAMINATION RESULTS**  
**SCHOOL OF ARTS AND SCIENCES**  
**DEPARTMENT OF BIOLOGY**  
**AY2010-2011 to AY2014-2015**

Master's Comprehensive Exam

	Fail		Pass		High Pass		Pass w/Honors		TOTAL
	#	%	#	%	#	%	#	%	
AY2010-2011		0.00%	1	100.00%		0.00%		0.00%	<b>1</b>
AY2011-2012		0.00%	6	100.00%		0.00%		0.00%	<b>6</b>
AY2012-2013		0.00%	2	100.00%		0.00%		0.00%	<b>2</b>
AY2013-2014		0.00%	1	100.00%		0.00%		0.00%	<b>1</b>
AY2014-2015		0.00%	2	100.00%		0.00%		0.00%	<b>2</b>
<b>TOTAL</b>	<b>0</b>	<b>0.00%</b>	<b>12</b>	<b>100.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>12</b>

Doctoral Comprehensive Exam

	Fail		Pass		High Pass		Pass w/Honors		TOTAL
	#	%	#	%	#	%	#	%	
AY2010-2011		0.00%	3	100.00%		0.00%		0.00%	<b>3</b>
AY2011-2012		0.00%	5	100.00%		0.00%		0.00%	<b>5</b>
AY2012-2013		0.00%	3	100.00%		0.00%		0.00%	<b>3</b>
AY2013-2014		0.00%	7	100.00%		0.00%		0.00%	<b>7</b>
AY2014-2015	1	20.00%	4	80.00%		0.00%		0.00%	<b>5</b>
<b>TOTAL</b>	<b>1</b>	<b>4.35%</b>	<b>22</b>	<b>95.65%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>23</b>

Note:

1) Milestone outcomes were included in the categories High Pass and Pass with Honors if these designations were explicitly indicated in the students' milestone record.

- 2) Category "High Pass" includes both "High Pass" and "Pass with distinction".
- 3) The count in this table is based on the exam outcomes of all attempts in an academic year.
- 4) Level of the comps, i.e. Master's and doctoral, is based on the milestone activities; if there is no specification of the level in the record, students' degree level is used to determine the level.

Table 2. Graduate Comprehensive Examination Rubric Data from AY2014-15

**Table of Results**  
**Student Learning Assessment Rubric**  
**Department of Biology**  
**M.S. and PhD in Biology**  
**Rubric for Graduate Comprehensive Exam**

Trait	Level						Mean	SD	Total N
	Exceeding Expectations (3pts)		Meeting Expectations (2pts)		Below Expectations (1pt)				
	N	%	N	%	N	%			
<b>1) 1) Knowledge of biological curriculum content</b>	1	14%	6	86%	0	0%	2.14	0.38	7
<b>2) Written presentation of scientific topics</b>	1	14%	6	86%	0	0%	2.14	0.38	7
<b>3) Science analytical skills</b>	3	43%	3	43%	1	14%	2.29	0.76	7

- Note: 1) The "N" represents the number of students at each level of performance for each trait.  
 2) The "%" represents the percentage of the number of students falling at the level performance for each trait against the total number of students.  
 3) The mean is the average of all scores across the levels within the trait.  
 4) The standard deviation (SD) is the measure of the variability of the data set, indicating how "spread out" these data are from the mean value.

**Curricular Improvements**

We have not made any major curricular changes in our graduate program in this academic year.