

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 AY09-10, we have had 30 Master's and Doctoral students in Biology take and pass their comprehensive examinations (Table 1). Nearly all of those students (97%; 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 AY2009-13

THE CATHOLIC UNIVERSITY OF AMERICA
 Financial Planning, Institutional Research and Assessment

GRADUATE COMPREHENSIVE EXAMINATION RESULTS
SCHOOL OF ARTS AND SCIENCES
DEPARTMENT OF BIOLOGY
AY2009-2010 to AY2013-2014

Master's Comprehensive Exam

	Fail		Pass		High Pass		Pass w/Honors		TOTAL
	#	%	#	%	#	%	#	%	
AY2009-2010		0.00%		0.00%		0.00%		0.00%	0
AY2010-2011		0.00%	1	100.00%		0.00%		0.00%	1
AY2011-2012		0.00%	6	100.00%		0.00%		0.00%	6
AY2012-2013		0.00%	2	100.00%		0.00%		0.00%	2
AY2013-2014		0.00%	1	100.00%		0.00%		0.00%	1
TOTAL	0	0.00%	10	100.00%	0	0.00%	0	0.00%	10

Doctoral Comprehensive Exam

	Fail		Pass		High Pass		Pass w/Honors		TOTAL
	#	%	#	%	#	%	#	%	
AY2009-2010		0.00%	2	100.00%		0.00%		0.00%	2
AY2010-2011		0.00%	3	100.00%		0.00%		0.00%	3
AY2011-2012		0.00%	5	100.00%		0.00%		0.00%	5
AY2012-2013		0.00%	3	100.00%		0.00%		0.00%	3
AY2013-2014		0.00%	7	100.00%		0.00%		0.00%	7
TOTAL	0	0.00%	20	100.00%	0	0.00%	0	0.00%	20

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. Student Learning Assessment Rubric of Graduate Comprehensive Exams from AY2009-10

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	%			
1) 1) Knowledge of biological curriculum content	8	27%	21	70%	1	3%	2.23	0.50	30
2) Written presentation of scientific topics	5	17%	24	80%	1	3%	2.13	0.43	30
3) Science analytical skills	6	20%	23	77%	1	3%	2.17	0.46	30

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 consider it a very positive trend that 100% of our graduate students, both Master's and Doctoral students, have passed their comprehensive examinations in the past five years. We have introduced new courses in our Biotechnology Master's program that our Biology graduate students can take as electives (e.g. Biol 596 Computational Genomics and Biol 597 Fundamentals of Statistics in Biology, Medicine and Biotechnology).