

Department of Mathematical Sciences
PhD Program Assessment 2013-2015

PhD Programs assessed: PhD in Mathematics
 PhD in Statistics

1. What was done on assessment this year? AY 2013 - 2015

Each PhD program was reviewed according to our Program Assessment plan. The departmental Graduate Committee (henceforth, GPC) convened to deliberate the assessment results and determine if any program changes were needed.

2. What assessment data were collected?

Results from Comprehensive Exams (qualifying, written, oral and defense).

Students taking comprehensive exams in 2013-14 and 2014-15

Last 4 GID	Fall 2013	Spring 2014	Fall 2014	Spring 2015	Results	Program
2580	W				Left Program	Math
5233	NP	NP		F	Changed Program	Math (Education)
1487		D			Graduated	Math (Education)
3915	O		D		Graduated	Math (Education)
3725		D			Graduated	Math (Education)
2769				D	Graduated	Math
2508				D	Graduated	Math
1400				D	Graduated	Math
0920		D			Graduated	Math
3119	O				Ongoing	Math
5232	W		O		Ongoing	Statistics
7049	O		D		Graduated	Statistics
2264	W	O		D	Graduated	Statistics
4706	*		W	O	Ongoing	Math (Education)
3175	*		W		Ongoing	Math (Education)
7350	*	*	W	O	Ongoing	Math (Education)
1844			*		Ongoing	Math
3309			*		Ongoing	Math
4207			*		Ongoing	Math
5630			*		Ongoing	Math
6103			*		Ongoing	Math
5705	O				Ongoing	Math
0611			W	O	Ongoing	Statistics
6589	W			O	Ongoing	Math
5738		O			Ongoing	Statistics
5656				O	Ongoing	Math

4387				Q	Ongoing	Statistics
9322				Q	Ongoing	Statistics

Symbol Key

- * Student completed an attempt in one component of a multicomponent exam. Not counted as pass until all components completed.
- W Passed Written Comprehensive Exam
- O Passed Oral Comprehensive Exam
- Q Passed Qualifying Comprehensive Exam
- D Passed Defense
- NP Student’s first attempt was not passed
- F Fail

Data Summary

Total number of students attempting PhD Math Exams: 21

Total number failing PhD Math Exams: 1

Total number of students attempting PhD Statistics Exams: 7

Total number failing PhD Statistics Exams: 0

3. What was learned from the assessment?

For the PhD in Statistics, the GPC verified that the requirements that (i) students take 3 credits of Stat 689: Doctoral Reading and Research prior to written comprehensive exam, and (ii) changes made to the written exam component structure several years ago continue to result in very high success rates within each cohort of Statistics PhD students. The changes in the exam structure were primarily modifying the exam to include questions related to the readings in Stat 689, reading and critiquing two new research papers in the student’s research area, and performing a comprehensive data analysis problem that includes a written report. These exam components provide a good assessment and better reflect whether a student is prepared to perform independent doctoral research in Statistics.

For a number of years, the Mathematics PhD with a dissertation in mathematics education encouraged students to take the Reals-Complex exam for the content component of a trio of comprehensive exams. Evidence during this assessment period showed that Reals/Complex is not the most appropriate exam for this program because the content is not aligned with the research area of these students. We have revised program requirements as a result. The revised program maintains the standard of content rigor in terms of completing doctoral-level coursework, but now uses a written comprehensive examination in mathematics content that better reflects the needs of future mathematics education researchers and educators.

4. How did you respond to the assessment results?

For the PhD in Statistics, our response is to continue to use our current exam and defense procedures given the success we are enjoying in our completion rate for PhDs and providing current PhD students with a path to success.

For the PhD in Mathematics, we adjusted the requirements for the mathematics – education pathway as described above. We made no further changes for the PhD in mathematics.