

# Student Learning Outcomes Assessment Summary

## **MATHEMATICS PhD**

*College of Natural Sciences and Mathematics*

**2017-18**

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### **1. Assessment information collected**

Reports of PhD comprehensive exams of two PhD students.

Progress reports of enrolled PhD Mathematics students.

Discussion with students and faculty.

### **2. Conclusions drawn from the information summarized above**

Summary:

The Mathematics PhD program revitalization is going very well. We have one student who has advanced to candidacy and is on track to graduate next year, and one student who has just passed the comprehensive exams and will likely graduate in two years. The more advanced student has multiple papers that have appeared, are accepted, or in final revision. (The last one is sole-authored.) The second student also has a paper in process.

Of the three other enrolled PhD students, one has been enrolled for two years, one for 1.5 years, and one for .5 year. Current plans are for the first two students to take PhD comprehensive exams next year. All three of these students have papers in preparation and their committee's assessment is that they are making good and timely progress towards their PhD degrees.

Significantly, the just-entered PhD student was awarded an NSF Graduate Research Fellowship. This prestigious award will fund her PhD studies at UAF for three years.

One admitted PhD student left the program after one semester. It seemed unlikely that this student would be successful in PhD studies.

Framework from SLOA:

Goals:

Assessment:

Our students will attain a level of technical ability and knowledge to carry out independent mathematical research, to succeed as educators in a classroom setting, and to achieve other mathematical professional goals.	All five students are succeeding in course work, in exams, and in TA/RA responsibilities.
Students will master foundational mathematical concepts and learn in depth the area of the dissertation.	All students are working on dissertation research projects already, with publications in press or in process.
Communication and presentation skills are consistent with professional standards.	Students are giving department colloquia as part of the Advancement to Candidacy phase of their studies and submitting for publication research articles. Students have given talks or presented posters at national and international meetings.
Students will obtain employment in their chosen field, or otherwise meet personal objectives for completing the degree.	As the PhD program is just restarting after a period of dormancy, the first recent graduate will finish in 2019. This student is applying for a post-doctoral position with a faculty mentor at the University of New Mexico.

### **3. Curricular changes resulting from conclusions drawn above**

The current revitalization plan is working. No changes have been identified as needed.

### **4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting**

Elizabeth Allman, Sergei Avdonin, Leah Berman, John Rhodes

### **5. Has your SLOA plan been updated to include assessment of the program's Communication Plan, as required by Faculty Senate motion? (required for baccalaureate programs only)**

Yes.

