***STUDENT LEARNING ASSESSMENT PROGRAM***

***SUMMARY FORM AY 2016-2017***

**Degree and Program Name: M.A. Mathematics**

**Prepared by: Bogdan Petrenko, Graduate Coordinator since June 1, 2017**

**Submitted By: Marshall Lassak, Chair**

**PART ONE**

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| What are the learning objectives? | How, where, and when are they assessed? | What are the expectations? | What are the results?  (students) GPA 0.0 to 4.0 | Committee/ person responsible? How are results shared? |
| 1. Depth of Content Knowledge: Students will learn fundamental principles at an advanced level in selected areas of mathematics. | Uniform exit exams in required courses-  MAT 5000: Mathematics Graduate Seminar  MAT 5100: Abstract Algebra  MAT 5301: Real Variables  MAT 53352-001: Introduction to Algebraic Number Theory  MAT 53352-002: Introduction to Data Science | Students should obtain at least a “B” (3.00 out of a 4.00 scale) or better on the first attempt. | FA 2016:  MAT 5000: 2 of 2 students met expectations.  MAT 5100: 2 of 2 students met expectations.  MAT 5301: 2 of 2 students met expectations.  SP 2017  MAT 5000: 2 of 3 students met expectations.  MAT 53352-001: 3 of 3 students met expectations.  MAT 53352-002: 3 of 3 students met expectations. | Data are collected by course faculty and graduate coordinator.  Results are shared with chair and graduate committee.  Students who earn a “B” or lower must meet with graduate coordinator to discuss potential issues, deficiencies, and graduate school regulations that may be present moving forward. |
| 2. Critical Thinking & Problem Solving: Students will demonstrate the ability to think and write critically, as well as acquire technical and problem solving skills. | a) Evaluation of a selection of assignments from 5000+ level coursework.  b) Teaching of MAT 1271 | a) Students should obtain at least a “B” (3.00 out of a 4.00 scale) or better on coursework samples.  b) Teaching evaluations by the graduate teaching coordinator should be at the satisfactory or higher level | FA 2016:  a)  MAT 5100: 2 of 2 students met expectations.  MAT 5301: 2 of 2 students met expectations.  b) Both GAs exceeded the rating of satisfactory for teaching.  SP 2017:  a)  MAT 53352-001: 3 of 3 students met expectations.  MAT 53352-002: 3 of 3 students met expectations.  b) Both GAs exceeded the rating of satisfactory for teaching. | a) Data are collected by course faculty and graduate coordinator.  Results are shared with chair and graduate committee.  Students who earn a “B” or lower must meet with graduate coordinator to discuss potential issues, deficiencies, and graduate school regulations that may be present moving forward.  b) GAs are evaluated twice a semester bu the graduate teaching coordinator. Additioanlly, the GAs meet weekly with the graduate teaching coordinator to discuss teaching issues.  Department chair  Teaching ratings are shared with GAs in a conference with the graduate coordinator and department chair. |
| 3. Oral & Written Communication Skills: Students will be able to communicate advanced mathematics in both oral and written format; as well as be able to read and assimilate advanced research level mathematics from original and secondary sources. | Presentations given during the graduate seminar (taken over 3 semesters) | Students should obtain at least a “B” (3.00 out of a 4.00 scale) or better in each seminar. Each presentation should rate at least at the “Basic” level or higher for each presentation. | FA2016:  2 of 2 students exceeded expectations for seminar.  2 of 2 students rated at least “Basic” or higher for each presentation.  SP 2017:  2 of 2 students exceeded expectations for seminar. | Data are collected by seminar/independent study faculty and graduate coordinator.  Results are shared with chair and graduate committee.  Students who earn a “B” or lower must meet with graduate coordinator to discuss potential issues, deficiencies, and graduate school regulations that may be present moving forward.  Presentation results are shared with students. |
| 4. Advanced Scholarship through Research and Creative Activity | Thesis work and presentations | Thesis will be completed in a timely manner (generally 2 semesters) and exhibit the qualities as described in the Graduate School Thesis Manual. | No students defended the thesis in AY 2016-2017. | Thesis advisor and thesis committee are primarily responsible for assessing the quality of the thesis.  Results are shared with student through the thesis presentation/defense. |

**PART TWO and PART THREE**

(2) Describe your program’s assessment accomplishments since your last report was submitted. Discuss ways in which you have responded to the CASA Director’s comments on last year’s report or simply describe what assessment work was initiated, continued, or completed.

(3) Summarize changes and improvements in **curriculum, instruction, and learning** that have resulted from the implementation of your assessment program. How have you used the data? What have you learned? In light of what you have learned through your assessment efforts this year and in past years, what are your plans for the future?

In general, a mathematics graduate program is able to offer a significant number of graduate assistantships. Unfortunately over the past several years our ability to offer assistantships has eroded due to lack of support from the Graduate School. We currently have only 2 Graduate Assistantships. Furthermore, students who manage to pay for their own graduate education expenses (many will go elsewhere instead of doing so for mathematics programs) are not receiving the teaching skills required to be an effective community college instructor or teaching assistant at their Ph.D. programs.

Since the Graduate School no longer implements a graduation application survey, we plan to create a survey to be sent to graduate students 5 years after they complete their program. This survey is still under development. Currently, we have only kept track of whether students secured employment or were pursuing a doctorate upon graduation. However we have removed employment and pursuing a graduate degree from our list of objectives because as was pointed out by the CASA director in a previous report, we currently do not have an effective or consistent assessment to link to this goal. Provided our program survives beyond the coming academic year, we will revisit this issue to see how we can better articulate this goal into our assessment program.

In AY 2016-2017. the department discontinued the Supplemental Instruction program and reinstated having GAs teach sections of MAT 1271 – College Algebra. The graduate teaching coordinator monitored instruction for these sections. Additionally the GAs met weekly with the teaching coordinator to discuss pedagogical ideas and issues. Moving forward, we will implement departmental student evaluation forms for these classes.

We have continued the one credit hour graduate seminar. During AY 2016-2017, the semester began with two faculty presentations. Faculty members gave presentations on topics outside the standard curriculum in order to introduce areas of potential research interest and provided students with models of how knowledge in varied mathematical areas might be effectively communicated. The remaining class sessions were devoted to several student presentations based on advanced mathematical research papers. The semester ended with a final department wide presentation by each student in class.

Finally, our department has been developing a five-year plan for advanced and high achieving undergraduate students to earn their MA in Mathematics by taking one extra year of graduate level material. We intend to submit this plan in August of 2017 for approval the relevant EIU committees.