

## Undergraduate Program-Specific Student Learning Outcome Assessment Plan - 2018– 2019 Academic Year

### I. Program Information

Program/Department: *Mathematics*  
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The Mathematics Department has a major program that is Nationally Accredited (BS in Mathematics with an Area of Concentration in Mathematics Education by NCATE/NCTM). The others have no national accrediting body. We also have general education classes that include many different majors and no classes that have just mathematics majors. We have chosen to assess two major mathematics skills from calculus for all students taking those classes and to include three measures of content knowledge from the NCATE/NCTM accreditation. We have chosen to submit our report for the October deadline.

### II. Program-Specific Student Learning Outcomes (Educational Objectives) Assessed During Last Academic Year

*List ALL Program-Specific SLOs first, their direct alignment to University SLOs, and the assessment timeline (annual or bi-annual) for assessing each program SLO.*

<b>Program SLO</b>	<b>UNIVERSITY SLO</b>	<b>TIMELINE for ASSESSMENT (annual, semester, bi-annual, etc.)</b>
The ability to take derivatives	Apply scientific Reasoning to Solve Problems	Every Semester
The ability to take integrals	Apply scientific Reasoning to Solve Problems	Every Semester
Mathematics Skills (3 measures)	Apply scientific Reasoning to Solve Problems	Annually

### III. Direct Measures Used

Using the table below, list and briefly describe the direct methods used to collect information assessing whether students are learning the cores set of knowledge (K), skills (S) and attitudes (A) identified as essential.

<b>Dept. SLO #</b>	<b>Direct Assessment Measure(s) Used</b>	<b>Assessment description (exam, observation, national standardized exam, oral presentation with rubric, etc.)</b>	<b>Assessment completed by (student, supervisor, faculty, etc.)</b>	<b>When assessment was administered in student program (internship, 4<sup>th</sup> year, 1<sup>st</sup> year, etc.)</b>	<b>To which students were assessments administered (all, only a sample, etc.)</b>
The ability to take derivatives	Gateway Test on Derivatives	Exam taken in Calculus I	Student	During Calculus I, usually during the student's first semester	All students taking calculus I including non-majors
The ability to take integrals	Gateway Test on Integrals	Exam taken in Calculus II	Student	During Calculus II, using during the student's second or third semester	All students taking calculus II including non-majors
Mathematics Skills	Praxis II	Standardized Exam	Student	At the end of student teaching, during the student's last semester	All mathematics education students
Mathematics Skills	Mathematics GPA	Grade Point Average on Mathematics Courses required for certification	Student	On graduation	All mathematics education students
Mathematics Skills	Critical Courses GPA	Grade Point Average on All Courses in Mathematics and Education Required for Certification	Student	On graduation	All mathematics education students

**IV. Indirect Measures Used**

Using the table below, list and briefly describe the indirect methods used to collect information assessing whether students are learning the cores set of knowledge (K), skills (S) and attitudes (A) identified as essential.

<b>Dept. SLO #</b>	<b>Indirect Assessment Measure(s) Used</b>	<b>Assessment description (survey, alumni or employer survey, national standardized exam, non-graded assignments, student projects – non-standardized, journals, opinion polls, etc.)</b>	<b>Assessment completed by (student, supervisor, faculty, etc.)</b>	<b>When assessment was administered in student program (internship, 4<sup>th</sup> year, 1<sup>st</sup> year, etc.)</b>	<b>To which students were assessments administered (all, only a sample, etc.)</b>
	NONE				

**V. Student Performance Outcomes**

How did the student perform on each assessment, compared to the department/program goal?

**What is the target/goal/score for each assessment? Then briefly summarize the results.**

**VI. Key Findings:** Briefly summarize the results of the assessments and how do these compare to the goals you have set?

**VII. Describe Process Used by Program Faculty to Discuss and Interpret Key Findings**

Through what modes were assessment results shared with program faculty? What process was used by program faculty to discuss and interpret the key findings? What hypotheses do program faculty have for why these are the results?

**VIII. Changes Made as a Result of the Key Findings / Actions Taken**

What changes or actions were taken or are planned for 2014-2015 and in the future in response to your key findings?

**IX. Adjustments to/Deviation from the Department Assessment Plan**