Colorado State University – Pueblo Academic Program Assessment Report for AY 2017-2018 **Due: June 1, 2018**

Program: Mathematics BA/BS **Date:** June 1, 2018

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Assessment contributors (other faculty involved in this program's assessment): None

For the 2017-2018 academic year, the program's SLOs and other aspects were evaluated using results of an "exit survey" as well as results from the MFAT.

Faculty review of ungraded and unidentified final exams is rescheduled again for next year.

Changes implemented - We have tried a few curricular changes over this academic year.

1) Decoupling Math 207 from Math 325 and Math 307.

2) Increasing Math 325 to 4 credit hours

3) Adding supplemental instruction to sections of Math 109 and Math 121.

4) A graduate class for teachers was offered Spring 2018

Results

For 1) we have found that 207 probably should be reinstated as a prerequisite to Math 307.

Math 325 can continue without 207 as a prerequisite.

2) Seems to work reasonably well, will continue.

3) Was successful for first time students, additional SAI experiments are indicated.

4) The grad class did not get sufficient enrollment. Future offerings may need better advertising.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? **Please include the outcome(s) verbatim from the assessment plan.**	B. When was this SLO last assesse d?	C. What method was used for assessing the SLO? **Please include a copy of any rubrics used in the assessment process.**	D. Who was assessed? Please fully describe the student group.
1. Learn, understand and apply mathematics from the core mathematical disciplines of calculus, abstract algebra, analysis, modeling, differential equations, geometry, probability, and statistics.	AY 16-17	The Mathematics Major Field Achievement Test, given to each student at the end of their second capstone course (Math 421 and Math 427).	Students in either Math 421 Fall 17 or Math 427 Spring 18 who were completing the second of these two capstone courses. These are generally students who will graduate in this or the subsequent term. Spring 2017 MFAT results are included since they were not last year.

E. What is the expected achievement level and how many students should be at it?	**F. What were the results of the assessment?**	**G. What were the department's conclusions about student performance?**	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
A 90% of students above the 50^{th} percentile in the national rankings.	The national percentile rankings on the Math MFAT were Spring 2017 98 84 75 45 91 Fall 2017 56 Spring 2018 11 85 48 32 17 25	Spring 2018 results were disappointing. However, we knew these were not our strongest students. Our long term performance still remains strong, but if we cannot attract quality students we will have a problem meeting our goal. Subscore rankings may help us determine the curricular cause, if any, for the low scores. These were available in the past for no additional charge. They may be available for free if we administer the test online. The cost for subscores is prohibitive with the paper version of the MFAT.	We plan to continue discussions, regarding further changes to strengthen the upper end and the breath of our applied offerings and curriculum, to attract more majors and minors and to help more students to achieve in the top half on the MFAT.

B. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
1. Learn, understand and apply mathematics from the core mathematical disciplines of calculus, abstract algebra, analysis, modeling, differential equations, geometry, probability, and statistics..	AY 16-17	In AY 16-17 changes in, our mid level (soph. and jr) courses of Math 126-224-325, 207307 were recommended. We plan to continue discussions of these in early Fall 18.	We implemented proposals leading to changes in several courses and in the curriculum, especially in our mid level (soph. and jr) courses of Math 126-224-325, 207-307.	See discussion above.

Results of exit interviews

Uniformly positive with no substantive changes indicated.