Academic Program Assessment Report for AY 2019-2020 **Program:**___BS/BA Mathematics_____

(Due: May 1, 2020) **Date report completed:** __July 15, 2020___

Completed by:___Dr. Paul Chacon_____

Assessment contributors (other faculty involved): _____

Please describe the 2019-2020 assessment activities and follow-up for your program below. Please complete this form for each undergraduate major, minor, certificate, and graduate program (e.g., B.A., B.S., M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, save and submit it to both the Dean of your college/school and to the Assistant Provost as an email attachment before June 1, 2020. You'll also find this form on the assessment website at https://www.csupueblo.edu/assessment-and-student-learning/resources.html. Thank you.

Brief statement of Program mission and goals:

1.Students will have facility in the core mathematical content areas: calculus, algebra, and other additional topics.

2. Students will formulate and solve problems using mathematical tools, while working alone or in groups on routine problems, non-routine and open-ended problems, problems involving applications to other fields, problems involving real-world data, and abstract problems within mathematics.

Criterion: Overall and in the content and cognitive breakdown areas of the MFT, ninety percent of CSU – Pueblo mathematics majors will score at or above the 50th percentile on the MFAT standardized exam.

3.Students will create, analyze and use mathematical abstraction. They will understand and write formal mathematical arguments

4. Students will learn independently, locate and use appropriate sources of technical material, and make use of modern computational tools.

5.Students will produce and deliver effective written presentations of mathematical material and ideas.

Criterion for 3. and 5: By the conclusion of the capstone courses most students are expected to be proficient in mathematical argumentation and proof at the undergraduate level.

Criterion for 4: Ninety percent of graduating students will have completed at least one special topics class or research project.

I. Assessment of Student Learning Outcomes (SLOs) in this cycle. Including processes, results, and recommendations for improved student

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 reported on prior to this cycle? (semester and year)	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(s) and the number of students or artifacts involved (N).	E. What is the expected proficiency level and how many or what proportion of students should be at that level?	F. What were the results of the assessment? (Include the proportion of students meeting proficiency.)	G. What were the department's conclusions about student performance?
1.	May 2019	See above	All graduates	See above	5 of 7 met	Not satisfied
4.	Not so far	See above	All graduates	See above	6 of 7 met	Good result

H. What changes/improvements to the program are planned based on this assessment?

Note: Covid 19 disrupted our assessment process. Since students were not on campus we had a harder time coercing them into participating in MFAT and exit interviews. Since faculty were not on campus we did not complete the collection of ungraded final exams needed for student portfolios.

Changes under consideration: We are having ongoing discussions as to what is the best path to take for our weaker students. One option being discussed is to require an intro to proof class as part of the major. Once our portfolio process matures we may be able to come to consensus.

Comments on part I:

II. Closing the Loop. Describe at least one data-informed change to your curriculum during the 2019-2020 cycle. These are those that were based on, or implemented to address, the results of assessment from previous cycles.

4. Students will learn independently, locate and use appropriate sources of technical material, and make use of modern computational tools.

A. What SLO(s) or other issues did you address in this cycle? **Please include the outcome(s) verbatim from the assessment plan.**	B. When was this SLO last assessed to generate the data which informed the change? Please indicate the semester and year.	C. What were the recommendations for change from the previous assessment column H and/or feedback?	D. How were the recommendations for change acted upon?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
4.	Annually	Create more research or special topics options for students	Graph theory and Combinatorics plus research classes were offered	New and future graduates will have a transcript showing experiences beyond the traditional curriculum

Comments on part II:

Miscellany

Covid made exit interviews difficult, a review of our exit interviews will need to wait until more are completed.