**Executive Summary**

Going through this process has led to the conclusion that our current CLOs and methods for assessment need revision. Though it was possible to get some idea of student learning with regard to differentiation and integration specifically, any trends or areas for improvement were not evident. To remedy that, we are changing all of our CLOs, PLOs, and methods for assessment.

The new SLOs will have a unified design that addresses specific domains, regardless of the individual course where the assessment is being done. This will allow comparisons to actually be made between courses, and between courses and the program overall. By incorporating a common rubric, this will greatly simplify the process of assessment itself and allow us to identify more specific areas for improvement.

**Faculty Included in the Preparation and Sharing of this Report:**

(please replace this area with the names of all faculty that helped to prepare and provide input on this report. This includes faculty who were parts of draft discussions and conversations. Ideally, it is all faculty representing the core disciplines making up the degree or certificate.)

David Boley

Hardev Dhillon

Michael Adams

Elzbieta Jarrett

Heidi Meyer

Sarah Curl

Ross McKenzie

Dan Alcantra

**Please provide a brief and cogent narrative in response to each of the following questions.**

1. Are the course learning outcomes (CLOs) on your spreadsheet accurate (as of right now), and do they represent the overall purpose(s) of the course(s)? *Please explain why or why not.*

Yes, they are accurate. Yes, they do represent the overall purpose of the course. The key ideas mentioned are indeed essential, central ideas, and success in a subsequent course is indeed an important purpose of a prerequisite course.

1. Are the program learning outcomes (PLOs) on your spreadsheet accurate (as of right now), and do they represent the overall purpose(s) of the program? *Please explain why or why not.*

Yes, they are accurate. Yes, they do represent the overall purpose of the program. They key ideas mentioned are indeed the central, essential ideas of the program, and success in upper division course work is an important purpose of the program.

1. How well do the course learning outcomes (CLOs) fulfill, support and align with the program learning outcomes (PLOs)? Additionally, just in terms of the structure, do you think the assessment data from the CLOs can tell a qualitative *and* quantitative story about the PLOs? *Please explain, and take some time to think through and write about what kinds of PLO analysis your CLO assessments will foster.*

For the most part, the CLOs do fulfill, support and align with the PLOs. The exceptions are the CLOs that refer to success in future classes. Those don’t seem to align very well. The CLOs appear to have the ability to tell both a qualitative and quantitative story about the PLOs.

1. You’ve mapped your CLOs to PLOs. You’ve also been provided CLO assessment data in your packet. Now, take some time to reflect on, consider and analyze the data you have. This is not an easy section to complete, and the purpose of this pilot is to generate thoughtful reflection on—and assessment of—PLOs in relationship to our CLO assessment data.

Please look at every CLO data sheet included. Then, analyze, engage and write as much as you can, addressing the following question: ***what does your CLO data tell you about each of your PLOs?*** *Be detailed, descriptive and analytical.*

*As you consider this question…*

* + Discuss what kinds of trends you see in the data provided, and provide a qualitative assessment of each PLO.
  + Try to fill in the CLO data from each sheet on your spreadsheet, and attempt to come up with an aggregate percentage for your PLOs. Is it possible to give a PLO quantitative assessment based on all of the courses listed? Or, can you give a PLO quantitative assessment based only on your discipline/department courses?
  + **Please be thorough and provide as much reflection and analysis as possible. The more analysis, the better. Feel free to write beyond this page.**

It appears that the Math Department is doing an excellent job of meeting the second PLO “Master the techniques of integration and differentiation.” On the other hand, the method we currently use to assess CLOs does not give us useable data for the third PLO “Use the techniques to model real-world applications.” And the first PLO “Successfully complete upper division coursework in mathematics” appears to be completely unmeasureable while the student is in our program.

1. **Action Plan.** Based on the assessments and analysis you have provided in questions 1-4, please consider what changes or improvements you would like to make, which might include updating your CLO or PLO statements, modifying course outlines, rethinking instruction efforts, using different assessment instruments, etc. ***Based on the analysis you have provided in questions 1-4, provide an action plan for improvement that draws on your assessment results and efforts.***

The Math Department has decided to remove the CLOs involving success in a subsequent course, since it is not possible to measure that inside the course itself. Similarly, we are removing the first PLO involving success at another institution. We are also evaluating an overall change of how each CLO is assessed, to improve the ability to align with higher-level SLOs. We are also considering the possibility of a wholesale change of our CLOs to make them more uniform, meaningful, and easier to assess.

1. The college should be making improvements based on student learning outcomes assessment, and we need to continue to document and share the improvements and progress you have already made. *This is extremely important.*
   * Did you make any changes in your CLO or PLO statements during the last 4-year cycle that ended in 2012, or any changes this year? *Please explain what you accomplished.*
   * Did you make any improvements in the areas of teaching and instruction processes, your courses, or your program? *Please explain and provide details about your efforts!*

We improved our CLOs and made them much more uniform and measureable approximately 2 years ago. We are also in the process of creating a new Intermediate Algebra course for non-STEM majors as a result of review of student learning outcome results.

1. Please reflect on the process of learning outcomes assessment in your division and at Modesto Junior College. What do you think would make it more meaningful? How could it be improved? What would help you?

Student learning assessment needs to have a portion that isn’t tightly categorized into narrow definitions to allow faculty to report any creative method of measuring and improving student success, even if it doesn’t properly fit class or program or institution.