**Executive Summary**

Overall, Earth Science courses are satisfactorily helping students to meet GELOs for Modesto Junior College. Many course changes have been implemented recently and we look forward to collecting more data over the coming years to gain better insight into student achievement relative to GELOs and how these changes are working and to guide future changes to curriculum. Also, during the next curriculum review it may be desirable to combine the METEO and EASCI course signifiers for ease of assessment. In this report, the CLO data from both METEO and EASCI courses have been combined to eliminate duplicity of effort for all involved.

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

Noah Hughes

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

1. Provide a quantitative analysis for each GELO your CLOs inform. Provide the total number of students who passed/total number of students assessed in each GELO column *and* the corresponding GELO passing rate as an aggregated percentage.

**GENERAL EDUCATION LEARNING OUTCOMES Students Passed/Assessed TOTAL RATE**

Natural Science

Demonstrate Proficiency in Natural Science by:

*1. Explaining how the scientific method is used to solve problems.* 73/97 75%

*2. Describing how scientific discoveries and theories affect human activities.* 88/114 77%

1. Reflect on, consider and analyze the data you have. ***What does your CLO data tell you about how your students are achieving GELOs?*** *Be detailed, descriptive and analytical* in this qualitative assessment of each GELO in relation to your CLO data. **Are your results satisfactory?**

My CLO data tells me that my students are meeting their GELO-related CLOs satisfactorily.

In addition, we are satisfied with how well our CLOs correlate to GELOs

In addition, I have realized that it is inefficient to have my EASCI course data separate from my METEO course data. They are all part of the same program.

1. Your department and 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. Did you make any changes in your CLO statements or analysis during the last 4-year cycle? Did you receive funding for resources requests that were aimed to improve assessment results? Did you make any improvements in the areas of teaching and instruction processes, your courses, or your program? *Please explain your accomplishments and provide details about your efforts.*

Yes, sometime in the last four years changes were made to my CLO’s. These changes were made in response to curriculum changes that were implemented in an effort to align coursed with C-ID, IGETC, etc requirements.

Funding was sought and received in order to help promote success. A complete set of laptop computers and a laptop cart were purchased to improve student access to technology so that more technology-based lab curriculum could be implemented. In addition, it allows students to utilize e-texts, a more affordable textbook options for them. Another example was the purchase of a class set of whiteboards that allow students to work in small groups during lecture class and report back out to the rest of the class.

I am constantly making changes to my teaching in response to students needs and the overall goal of improving student success. In particular I have integrated elements of group work (to enhance cooperatibe skills and create a ‘social safe place’ for all students) and sustainability into many aspects of the class. In addition, I have integrated concepts of designing, building, and implementing models that can be used to learn course concepts.

Furthermore, I have combined the course data from EASCI courses with that from METEO courses. These courses are all part of the Earth Sciences program.

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

CLO results are satisfactory, and they correlate well to GELOs. We will continue to collect longitudinal data to better understand student achievement as it relates to GELOs.

In the future, for clarity of assessment, we should change the METEO course signifier to EASCI because METEO courses should be considered part of the Earth Science curriculum. In the meantime, we will request that the assessment grids and reports be removed from the assessment website.