



ALAMO  
COLLEGES

PALO ALTO COLLEGE  
AS Pre-Pharmacy

Natural Sciences Degrees

#1	AS Pre-Pharmacy Degree Student Learning Outcome  Be able to apply the scientific method to solve problems associated with pharmacy.
	Chemistry 1311,1312, 2323,2325
	Assessment Measure for this Outcome Performance on departmental final exam questions in general and organic chemistry
	Achievement Target for this Measure  70% performance in selected questions
	Findings  52 % on nomenclature, 67 % retro synthesis 67 % identification of functional groups (only three 3 students to report data on)
	Related Action Plans  Create a test blue print for the final exam.  Get intervention for students and get them into Tutoring and study groups a lot faster. Also important to note that these numbers only represent three (3) Pre-pharmacy students one of these student's failed the cumulative final with only 49 % of the questions answered correctly. A check of the student's records show that he received a D in the first semester of the course and failed the second semester of general chemistry. A grade C or better in prerequisite courses in a student's major along with required advising for students that are getting poor grades D or worse in there major area of study could help improve student success.
#2	AS Pre-Pharmacy Degree Student Learning Outcome  Be able to maintain records and communicate scientific principles clearly and concisely



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	Chemistry 1111,1112,2223, and 2225
	Assessment Measure for this Outcome  Evaluation of laboratory notebooks using standardized rubric and performance on formal lab reports at the end of each semester.
	At least 70 % performance on notebook and formal report  70 % performance
	Findings  94 % on final notebook grade, 91 % on Formal report ( only one student to report data on)
	Related Action Plans none needed at this time
#3	AS Pre-Pharmacy Degree Student Learning Outcome  Be able to use modern laboratory techniques and instrumentation to gather data on scientific problem. Then be able to use this data to draw conclusions and formulate scientific hypotheses.
	Chemistry 1111,1112,2223,2225
	Assessment Measure for this Outcome  Performance on various laboratory reports and departmental lab final.
	Achieve at least a 70% performance level on reports and final exam
	Findings Lab Reports Average 71 %, Lab Final 67 % (only one student to report data on)



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Related Action Plans

Create a test blue print for the lab final and a scoring rubric for the lab reports.  
Extra work in reviewing before lab final and a stronger emphasis on students turning in work on time.