

2014-15 Annual Program Plan

Name of Program: Chemistry
Name of Unit: Math & Sciences
Name of Area: Academic Affairs
Date Completed: 11/6/2013

Program's Mission Statement

The Chemistry Department at Rio Hondo College provides a challenging academic experience for students with diverse backgrounds and educational goals. The Department supports enrollment in other programs at the College, particularly the Biological Sciences and Nursing, through its offering of Chemistry 110, a key prerequisite course. The program provides a safe and engaging laboratory experience for students to learn the fundamentals of the subject through quality instruction using modern techniques and equipment. Common themes are addressed in all courses, including the relevance of chemistry to everyday life; its connections with the life sciences and human health; the use of the scientific method to solve problems; and the ability to communicate technical data and results.

Program's SLO Information - Assessment Results (1a)

A common subject of assessment in our courses relates to measurement skills. Even though these skills are required for all laboratory courses, students do not seem to retain these skills at the level that they should from course to course. We must invariably spend time revisiting these subjects at the expense of introducing new material. This is a common theme for a significant amount of other material as well, particularly molarity and the limiting reagent concept. Although many students are proficient in the outcome by the end of a given course, those skills are lost at the beginning of the next course. Students are rarely able to employ abstract conceptual concepts learned in general chemistry courses (e.g. enthalpy, equilibrium, kinetics, hybridization, applications of spectroscopy) at a sufficiently high level when they enroll in Chemistry 230.

Program's SLO Information - Changes in Instruction (1b)

We strongly emphasize measurement skills in our introductory courses (Chemistry 110 and 120) in the hopes that this will carry through to further semesters. This strategy has been successful in some semesters, but student performance still varies between groups of students. Students who are members of the MESA program and which are classified as "at risk" on the basis of their final grades are required to complete additional online instruction as part of an intervention before continuing on to the subsequent course. This has benefited several students, although it is not a successful solution in all cases.

Program's SLO Information - Requested Resources (1c)

Additional balances were requested and acquired to address problems of mass measurement in the Chemistry 110 course. This has generally led to better achievement of the measurement outcome as students are not as rushed and are more careful in recording their results. To address an outcome in the Chemistry 230 and 231 courses (not discussed in the narrative above) we requested and obtained funding to repair the detector for our infrared spectrometer.

Program's SLO Information - Assessment Reports (2)

Assessment reports have been written for all regularly offered courses. Chemistry 101, which has not been offered in several years, does not have any completed assessment reports.

Program's SLO Information - Online Results (3)

None of the courses in the Chemistry Department are offered online.

Program's SLO Information - Degrees and Certificates (4)

The Chemistry Department does not currently offer any degrees or certificates.