GENERAL EDUCATION/CORE COURSE-LEVEL ASSESSMENT REPORT TEMPLATE/ REPORTING INSTITUTION: UNIVERSITY OF NEW MEXICO-V

UNM-Valencia Course: CHEM111 Semester: Sp2016 Assessment Period:

Provide comments on changes, if any, implemented this year from the previous assessment period.

*When you submit the report, attach a separate document entitled "Appendix_Course_Instructor". In this Appendix, attach evidence of changes –i.e., revised syllabus, additional or revised activities, etc.

First assessment for this instructor.

1: Student Learning
Outcomes Being
Measured

Provide a complete list of the SLOs being measured and identify the NM HED Core Area(s) and competency number(s) that the SLO targets (refer to *Numbered NMHED Core Competencies* document for guidance)

SAMPLE: By the end of the course, students will be able to edit their writing to achieve appropriate diction, syntax, grammar, and mechanics. (Area I, Competency #4)

Students will be able to describe the dynamic nature of chemical equilibrium and its relation to reaction rates; apply Le Chatelier's Principle to predict the effect of concentration, pressure and temperature changes on equilibrium mixtures. (HED Area III, Competency #2)

2: Description of Assessment Instrument(s) and Procedures

Provide a summary that addresses the following questions: 1) What assessment measures were used in the course? 2) What was the structure and/or process for assessing student learning in the course? 3) Who collects/reviews the assessment results? 4) What is the expected criteria for success or performance benchmark for successfully meeting the SLO?

SAMPLE: The rubric utilizes a 5-point scale. Students are rated from 1 (No Mastery) to 5 (Mastered). Five sections of English 102 were assessed. Each taught by a different instructor, three 16 week face-to-face, and one first 8 week hybrid and one second 8 week online. The results were collected at the end of the Fall and Spring semesters by the English program director. 70% of the students were expected to receive a rate of 3 or higher on at least 4 of the 6 categories on the rubric.

*Paste a BLANK copy of the assessment instrument(s) in the separate Appendix entitled "Appendix_Course_Instructor".

Four multiple choice questions were asked, with two assessing addition or removal of reactant or product, one assessing heat changes, and one assessing volume changes. Students were given credit only for the correct answer; no partial credit was given. This concept is known to be difficult for students, particularly when it comes to heat and volume changes. As such, 80% of students were expected to correctly answer the first two questions and 25% were expected to correctly answer the second two questions.

Column 3: Assessment Results

Provide a summary of the assessment results

SAMPLE: A total of 44 students were assessed from five sections of English 102. 0% of the students received a score of 1 (No Mastery). 14% of the students received a score of 2 (Attempted). 59% of the students received a score of 3 (Skilled). 20% received a score of 4 (Acquired). 7% received a score of 5 (Mastered).

*When you submit the report, attach a separate document of aggregated assessment data/results in the Appendix.

27 students were assessed across two sections. 65% correctly answered the first question, 82% correctly answered the second question, and 17.2% correctly answered questions 3 and 4. 44% answered that equilibrium would not shift given heat changes and 36% answered that equilibrium would not shift given volume changes.

Column 4: Analysis and Interpretation/ Reflection on Results

Provide an analysis of assessment results by discussing strengths and/or weaknesses in students' performance/learning

SAMPLE: Students scored the lowest at the level of Attempted and Mastered for this Student Learning Outcome. This implies students have improved since last year in this area but are still are not moving more into the Mastered area.

These results suggest that students have good understanding of how increasing and decreasing reactants and products will affect equilibrium (though the wording may have confused students on the first question, resulting in the 17% difference between questions 1 and 2, despite assessing exactly the same concept) but that students have very poor understanding of *how* heat and volume affect equilibrium; indeed, ~40% of students believed that neither would have any effect on equilibrium whatsoever.

Column 5: Plan for Improving Process and/or Student Learning

Provide a summary for improving assessment process and/or student learning

SAMPLE: Editing is large part of the curriculum, and a review of diction, syntax, grammar, and mechanics is now addressed in the curriculum. However, more focused attention on specific student improvement in these areas should be attended to.

*When you submit the report, attach available documentation of improvements/revisions made in the course's curriculum, syllabus, activitties, etc. in the Appendix.

In the future, more practice problems on heat and volume changes will be included. In the lab, a demonstration has been used to illustrate heat's effect on equilibrium; this will be changed to allow the students themselves to do the demo, and an experiment or demonstration of volume's effect will be sought out to add to the lab.