Assessment: Course Four Column

SPRING / SUMMER 2016

El Camino: Course SLOs (NSC) - Chemistry

ECC: CHEM 21B:Survey of Organic and Biochemistry

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Structures of Reactants for a Reaction - On a written exercise, given the structures of reactants for a reaction, students will be able to write the correct structures of products and identify the reaction type. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2016-17 (Fall 2016) **Input Date:** 07/01/2013	**Exam/Test/Quiz -** Students were given a word problem (a pair of reactants). They were then asked to write the correct reactant formulas, states of matter (when required), identify reaction type, predict the product formula, and balance the chemical equation. **Standard and Target for Success:** The rubric had 4 levels. Level 1: No formulas (reactants or products) correct; Level 2: Some formula errors, but at least one formula correct (not including regiochemistry, if applicable); Level 3: All formulas correct, but at least one error in states (if applicable), balancing, or regiochemistry (if applicable); Level 4: No errors. It is expected that 80% of students score 3 or higher on the rubric.		
SLO #2 Molecular Models and	**Exam/Test/Quiz -** Students were	**Semester and Year Assessment Conducted:** 2015-16	**Action:** Review nomenclature later in

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Drawings - Students will be able to create (via molecular models or drawings) accurate representations of compounds. The representations will contain appropriate bonds, lone pairs, and geometry. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Spring 2016) **Input Date:** 07/01/2013	given the chemical formula or name of a molecule. They were then asked to draw a Lewis Structure of the molecule, including charges, lone pairs, and correct geometry. **Standard and Target for Success:** The rubric had 4 levels. Level 1: Errors in connectivity, numbers or types of atoms; Level 2: Errors in bonds, lone pairs, or octets; Level 3: All correct except for geometry; Level 4: No errors. It is expected that 80% of students score 3 or higher on the rubric.	(Spring 2016) **Standard Met? :** Standard Not Met One section of Chem 21B were assessed in Fall 2015, for a total of 22 students. 7 students scored rubric level 1 (31.8%), 7 students scored rubric level 2 (31.8%), 3 students scored rubric level 3 (13.6%), and 5 students scored rubric level 4 (22.7%). 36.4% of students overall scored level 3 or higher indicating the standard was not met. The instructor indicated that about one third of the students did not know how to name an ester. This was surprising given the amount of time spent on ester nomenclature. (01/15/2016) **Faculty Assessment Leader:** Ryan Turner **Faculty Contributing to Assessment:** Ana Tontcheva	the course (05/12/2017) **Action Category:** Teaching Strategies **Follow-Up:** No updates at this time. (01/18/2017)
SLO #3 Safety Protocol - Students will adhere to safety protocol in the laboratory regarding eye protection. Students will follow the proper procedure regarding wearing goggles in the laboratory, and keeping them on to protect their eyes. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Fall 2014) **Input Date:** 07/01/2013	**Multiple Assessments -** Students will be assessed for the number of times they must be reminded to wear their goggles in a laboratory period. Whenever a student must be reprimanded for failing to comply with the goggle policy, the instructor will make a notation. The instructor will report the number of notations made in the lab period. This assessment will happen towards the beginning of the semester, and again near the end of the semester. **Standard and Target for Success:** It is expected that no more than 5% of students will have their goggles off during the early semester goggle-compliance check, and no more than 2% of students will have their goggles off during the late semester goggle-compliance check.		