Student Learning Outcomes (SLOs) for Instruction Programs Phase I

Program Outcomes Assessment Report

"Program/Degree/Certificate Description or Mission Statement & Identification of Outcome(s)"

Date:	**May 6, 2011**

Degree or Certificate Grid needs to also be submitted (blank Grid on final page – see SLO Coordinator for assistance. The SLO Coordinator can make a grid for your specific degree/certificate program – just contact her.

Has SLO Grid been completed? Yes_X_____No_____ Is it Attached? Yes____X____No_____

Please write a couple of sentences describing what information the completed Grid provides. You may want to comment on ISLOs which are being covered well or not covered at all, changes to be made to outcomes or assessments, or, if possible, you may want to compare Grid to previous years.:

The matrix includes 22 courses. The average ISLO ratings are: Critical Thinking (3.5), Communication (2.5), Personal Responsibility (2.5), Information Literacy (2.5), and Global Awareness (2.2). These data suggest that the most important focus of the degree is critical thinking and that the other program outcomes are deemed slightly less important.

Please include the outcomes that have been designed for your courses.

Course Number	Outcomes
ANTH 100	1) Define the main goals and aims physical anthropology. 2) Demonstrate a measurable understanding of the Theory of Evolution by Natural Selection. 3) Illustrate a measurable understanding of Mendelian Inheritance Rules and biological variation based on the study of modern genetics. 4) Recognize anatomical changes in the evolutionary history of humankind based on the fossil record. 5) Explain biological and cultural diversity.
BIOL 120	1) Display oral communication effectiveness. 2) Display ability to show critical thinking on subject, answering short answers on exams. 3)

	3) Display ability to understand written and illustrated information on subject matter. 4) Display an understanding of global impact on and by **vertebrate** animals.
BIOL 140	1) Identify an important issue in botany, conduct research via literature, interviews with experts and hands-on projects, and clearly communicate content learned about the project by writing a research paper. 2) Identify an important issue in botany, conduct research via

2) Display

	5) Students demonstrate knowledge of atomic structure and quantum mechanics and apply these concepts to the study of periodic properties of the elements.
CHEM 202	1) Students examine and develop concepts of covalent bonding, orbital hybridization and molecular orbital theory. 2) Students identify and perform organic addition and elimination reactions. 3) Students compare and analyze Thermodynamics properties and differentiate between spontaneity and maximum useful work heat and Free energy. 4) Students develop ideas of Chemical Kinetics from experiments using concentration dependence then determining rates and rate law. 5) Students recognize oxidation reduction reactions in electrolytic cells, sacrificial anodes, the use of the Nernst equation, and how to balancing red ox reactions.
CHEM 204	1) Students demonstrate knowledge of covalent bonding and molecular geometry. 2) Students analyze the structure, nomenclature, physical properties and synthesize alkanes and cycloalkanes. 3) Students evaluate and measure the difference between organic acids and bases. 4) Students demonstrate knowledge of stereochemistry and its effects on molecular properties. 5) Students analyze the structure, nomenclature, physical properties and synthesize alkenes.
CHEM 206	1) Students analyze the structure, nomenclature, physical properties and synthesize aldehydes and ketones. 2) Students analyze the structure, nomenclature, and physical properties and synthesize

Please identify at least one outcome and assessment method, and estimated date for the completion of Section II. Please keep in mind the Comprehensive Program Review Schedule.

<u>Instructional Programs</u> (degrees, certificates): You are asked to complete Course-level Outcomes & Assessments for the two and half years leading up to your Program Review due date, and then Program-level Outcomes can be assessed during your Program Review Fall Semester. Still, even if your Program Review isn't due this fall, you will

Display competency with respect to the use of standard laboratory equipment and techniques common to life science labs.

Est. Completion Date: Way(s) to assess: Exams, laboratory exercises, presentations, and/or assignments

3.Outcome #3:

Understand the process of scientific research and display critical thinking skills related to hypothesis development, experimentation and data interpretation.

Est. Completion Date: Way(s) to assess: Exams, laboratory exercises, presentations, and/or assignments

Program Outcomes and Course Alignment Matrix for Imperial Valley College

Program: Life Science Associates Degree Completed on: 10/13/10

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Course	Communication	Critical Thinking	Personal Responsibility