

Students Learning Outcome and Assessment Plan Rio Hondo College

Department/program: Psychology Date: January 24, 2007

Course title/number: Biological Psychology/PSY 210 and PSY 210H

Participating Faculty: Michelle Pilati, Chris Sutow, Debra Kaiser

State Student Learning Outcome:

Students will apply the concepts of equilibrium potential, diffusion, electrostatic forces, and selective permeability to make predictions about the movement of ions.

Proposed Types of Assessment to be used:

∞ In-class small group assignments: Students will complete group papers in which they will describe the concepts of ion motility. Also, students may be given fictitious scenarios and be asked to make a prediction about the outcome, based on the concepts in the SLO. These papers will be evaluated by a point system.

∞ Objective and/or written tests: Students will be tested on a regular basis on the concepts regarding ion movement and the predictions that can be made given a cellular environment. There will be objective questions and/or essay questions asking for an evaluation of the contribution of equilibrium potential, diffusion, electrostatic forces and selective permeability on the movement of ions.

Collection and Evaluation Process:

Group assignment papers will be collected and students' knowledge evaluated by the clarity of their description concepts important for ion motility. Further, students' understanding of these concepts will be evaluated on a regular basis throughout the course through testing. Test scores will be based upon a point system.

Changes being considered (if any):

None

Review and recommendations; scheduled completion date:

In fall, 2007, this SLO will be reviewed.

Rubric for Evaluation of a Student Learning Outcome

Course: *Biological Psychology 210*

SLO: Students will apply the concepts of equilibrium potential, diffusion, electrostatic forces, and selective permeability to make predictions about the movement of ions.

Faculty participating: Michelle Pilati, Kevin Smith

Performance standard	<i>Excellent</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>
Standard 1: Student is able to understand the concepts of ion motility (equilibrium potential, diffusion, electrostatic forces, and selective permeability).	Student demonstrates a complete understanding of the definition and meaning of these concepts and how each relates with the other.	Student provides an adequate definition for these concepts but lacks the understanding of how each relates with the other.	Student is unable to provide either an adequate definition or understanding of the concepts of ion motility.
Standard 2: Student is able to correctly apply the concept of ion motility in relation to a particular cellular / electrochemical environment.	Student is able to correctly predict the direction of movement of ions given a specific cellular environment / electrochemical situation.	Student clearly identifies the concepts given the scenario, but is unable to make the correct prediction for the direction of movement of the ions.	Student is unable to provide an adequate application of the concepts of ion motility and is unable to relate them to a specific cellular situation / environment.
Standard 3: Student is able to provide example(s) of the concept of ion motility in the context of the resting / action potentials.	Student provides appropriate example(s) of the concepts of ion movement and flow during the resting / action potentials.	Student is able to identify some (at least 3) of the concepts of ion flow and movement to the resting potential and action potential, but does not apply all of the concepts.	Student is unable to identify enough of the concepts (2 or fewer) of ion movement and flow to the resting potential and action potential.

For multiple choice answers:

Rubric for Evaluation of a Student Learning Outcome

Course: *Biological Psychology 210*

SLO: *Students will apply the concepts of equilibrium potential, diffusion, electrostatic forces, and selective permeability to make predictions about the movement of ions.*

Faculty participating: *Michelle Pilati, Kevin Smith*

Performance Standard	<i>Excellent</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>
	80% or more correct of 6 questions (a minimum) across both standards	66% or more correct of 6 questions (a minimum) across both standards	50% or less correct of 6 questions (a minimum) across both standards
Standard 1 Student understands the concept(s) of ion motility	Using three questions, student correctly identifies the definitions of the concepts of ion motility with a particular cellular environment	Using three questions, student correctly identifies the definitions of the concepts of ion motility with a particular cellular environment	Using three questions, student is unable to correctly identify the definitions of the concepts of ion motility with a particular cellular environment
Standard 2 Student understands and recognizes an example of the concepts of ion movement / motility within a particular context	Using three questions with an example, the student understands and recognizes an example of the concepts of ion movement / motility within a particular context	Using three questions with an example, the student understands and recognizes an example of the concepts of ion movement / motility within a particular context	Using three questions with an example, the student is unable to understand and recognizes an example of the concepts of ion movement / motility within a particular context