De Anza College

SLO Assessment Cycle for BIOL 40A

Human Anatomy and Physiology SLO Modified: [06/04/2010]

Jeff Schinske's Team Members:

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Additional Team members not on list/notes about team:

Additional Notes:

Outcomes:

Outcome 1: Statement Modified: [10/22/2010]

Demonstrate the scientific method as employed by health professionals to evaluate real-world problems involving the skin, skeletal, and muscle systems.

Assessment Cycle Records:

Outcome 1: Assessment Planning Modified: [04/15/2011]

Assessment Strategy Used:
Quarter: Spring 2010
Assessors: Jeff Schinske
Assessment Tools: Written Reports
Sections being assessed: 03, 04

Outcome 1: Reflect & Enhance Modified: [06/04/2010]

Number of people involved in Phase III: 6

Changes:
Based on last year's data, I revised my grading rubrics for the assignments (case studies) used for assessment. I clarified my expectations for students in terms of the cellular and molecular biology knowledge I expected them to demonstrate.

Methods:
I assigned a series of case studies centered around the SLOs. Students received patient data, diagnosed the patients, and explained to peers the cellular and molecular bases for diseases using poster presentations. Rubrics were designed to include categories related to each SLO. Students received rubrics at the time the case studies were assigned. In analysis, I averaged scores for each rubric area. One area of the rubrics scored students' abilities to apply patient data as evidence to support a diagnosis. Those rubric areas contributed to assessment of this SLO.

Summary:
Generally speaking, students did an excellent job of confronting confusing data and assembling it into evidence that supported a diagnosis. The average of scores for these rubric areas was a 96%. This indicates students demonstrated appropriate skills in "thinking like a scientist" and working collaboratively. However, some students still failed to effectively distinguish relevant evidence from tangential evidence. Rather than focusing on the patient data directly related to their diagnosis, they indiscriminately discussed all patient data.

Enhancement (Part I):
I will try to better model the process of evaluating evidence. Distinguishing highly relevant scientific evidence vs. tangentially relevant scientific evidence is a tricky skill, but I will try to provide more opportunities (assignments, case studies, etc.) that provide opportunities for student practice.

Enhancement (Part II):
The biggest improvement I need is better facilities for using teamwork and peer teaching in class. Fixed seating lecture halls make it extremely difficult to cultivate effective and equitable teamwork environments. I would love to work in a lecture hall with tables instead of desks, or at least a room with movable desks.

Outcome 2: Statement Modified: [10/22/2010]

Investigate the roles of molecules, organelles, and cells in the function of skin, skeletal, and muscle tissues.

Outcome 2: Assessment Planning Modified: [04/15/2011]

Assessment Strategy Used:
Quarter: Spring 2010
Assessors: Jeff Schinske
Assessment Tools: Written Reports
Sections being assessed: 03, 04

Outcome 2: Reflect & Enhance Modified: [06/04/2010]

Number of people involved in Phase III: 6

Changes:
Based on last year's data, I revised my grading rubrics for the assignments (case studies) used for assessment. I clarified my expectations for students in terms of the cellular and molecular biology knowledge I expected them to demonstrate.

Methods:
I assigned a series of case studies centered around the SLOs. Students received patient data, diagnosed the patients, and explained to peers the cellular and molecular bases for diseases using poster presentations. Rubrics were designed to include categories related to each SLO. Students received rubrics at the time the case studies were assigned. In analysis, I averaged scores for each rubric area. One area of the rubrics scored students' abilities to understand the cellular and molecular aspects of their diseases. Those rubric categories were analyzed for this SLO.

Summary:
I was happy to see that my revised rubrics for these areas of the course seemed to help students better understand my expectations of them. On average, students scored a 98% for these rubric categories. That is a marked improvement over last year's data. A few posters showed a lack of specificity in the ways cells interact or react in diseased vs. healthy individuals.

Enhancement (Part I):
I will continue to refine my rubrics and will talk with colleagues about ways to focus students more on specific cellular interactions related to physiology and pathology.

Enhancement (Part II):
The biggest improvement I need is better facilities for using teamwork and peer teaching in class. Fixed seating lecture halls make it extremely difficult to cultivate effective and equitable teamwork environments. I would love to work in a lecture hall with tables instead of desks, or at least a room with movable desks.

Outcome 3: Statement Modified: [10/22/2010]

Infer the homeostatic reactions of skin, skeletal, and muscle cells and tissues in reaction to external or internal changes in conditions.

Outcome 3: Assessment Planning Modified: [04/15/2011]

Assessment Strategy Used:
Quarter: Spring 2010
Assessors: Jeff Schinske
Assessment Tools: Written Reports
Sections being assessed: 03, 04

Outcome 3: Reflect & Enhance Modified: [06/04/2010]

Number of people involved in Phase III: 6

Changes:
Based on last year's data, I revised my grading rubrics for the assignments (case studies) used for assessment. I clarified my expectations for students in terms of the cellular and molecular biology knowledge I expected them to demonstrate.

Methods:
I assigned a series of case studies centered around the SLOs. Students received patient data, diagnosed the patients, and explained to peers the cellular and molecular bases for diseases using poster presentations. Rubrics were designed to include categories related to each SLO. Students received rubrics at the time the case studies were assigned. In analysis, I averaged scores for each rubric area. One area of the rubrics scored students' abilities to understand how the actions of cells and molecules impact tissues and whole systems in the human body. Those rubric areas were scored for this SLO.

Summary:
This quarter, all student posters scored full credit for these portions of their case studies. Health science students appear to be highly in tune with system-level issues - much more so than molecular and cellular issues.

Enhancement (Part I):
I plan to keep these aspects of my course the same for now, but will work with colleagues to find additional ways to incorporate more subtle system-level issues in my curriculum in the future. I also may try to implement pre-assessments on these issues to see how/when conceptual changes might take place on these subjects.

Enhancement (Part II):
The biggest improvement I need is better facilities for using teamwork and peer teaching in class. Fixed seating lecture halls make it extremely difficult to cultivate effective and equitable teamwork environments. I would love to work in a lecture hall with tables instead of desks, or at least a room with movable desks.

[Number of Outcomes for BIOL 40A: **3**]