Course Outcomes Guide (COG)

Course Title: Biology 110, Human Biology Date: May 17, 2017

Course Team: Cindy Dove, Vennece Fowlkes adjuncts: Mindy Rouzer, Gregg Mason, Michael Chase, Eileen Stein, Marcy Kleinman

Expected Learning Outcomes:

The student will:

- 1. Discuss cell structure and function and apply an understanding of the cell to human physiology.
- 2. Apply fundamental knowledge of structure and function of each body system to an understanding of how homeostasis is maintained
- 3. Relate fundamental knowledge of the human body in homeostasis to clinical applications and common medical disorders.
- 4. Explore current areas of medical research and their relationship to social and ethical issues.
- 5. Students will apply reading, writing, and information literacy skills to course activities including: reading text, case studies, computer based research, and classroom activities.

Assessment (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

This course has been taught entirely by adjuncts for the past several years and has not had common outcomes, objectives, or a common assessment. This summer, I will work with the adjuncts to develop common objectives for each chapter. This course is also being taught on-line.

A common comprehensive final was adopted in Fall 2011, but has not really been evaluated. Five general education questions are also given to each in student beginning in Fall 2012.

A common comprehensive final exam was edited in the Spring 2017.

Validation (What methods have you used or will you use to validate your assessment?) The test currently does not have external validation.

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

Please see the results in the attached data sheet.

Item analysis Comprehensive final

Areas of weakness:

Cell transport – tonicity, blood, innate immune system, endocrine system

Item analysis General Education component

Students struggled with question #2 and #4. This question was also difficult for BIO103 (Anatomy and Physiology I) students.

We need to include more scientific reasoning in this course. I will need to work with the adjuncts to address this.

Follow-up (How have you used or how will you use the data to improve student learning?) Assessment results will be analyzed for each faculty member to see if they correlate with grade. Results will also be compared amongst instructors to see if results are consistent. Finally each instructor will get a read out that will show their results for each section to see if students are missing any outcomes and come up with new learning techniques.

Budget Justification (What resources are necessary to improve student learning?) Release time to complete extra projects will become necessary as the class enrollments continue to grow. Full-time faculty will work on establishing chapter learning outcomes and assessment validation.

Course: BIO 110 SLOA Data Faculty Team

| Course. BIO 110 | | SLOA Dala | | | | raculty realli | | |
|---|------------|-------------|------------|------------|-------------|----------------|-------------|--------------|
| | SU 2011 | FA 2011 | SP 2012 | SU 2012 | FA 2012 | SP 2013 | SP 2016 | SP 2017 |
| # Active students | 20 | 113 | 107 | | | | 73 | 128 |
| %W | 0 | 8 | 22.4 | | | | N/A | N/A |
| *% walk-away Fs No final exam/grade = F | | | | | | 11% | 4% | 12.5 N=12 |
| Common Comprehensive Final Exam Score | | 72% N=55 | ** | ** | 68% N=89 | 68.5% N=104 | 71% N=74 | 64% N=112 |
| Gen Ed Questions | | | | | 65% N=89 | 59% N=104 | 60% N=74 | 68% N=112 |
| Mean course grade | 3.30 | 2.77 | 2.53 | | | | 3.71 | 3.4 |

^{*%} Walk-away Fs = Did not take the final exam and received a grade of F.

***General Education Assessment

General Education Assessments: Demonstrate the ability to access, process, analyze and synthesize scientific information.

- a. Relate a basic core of scientific principles to an open ended framework
- b. Demonstrate observational and analytic skills in a structured situation.
- c. Formulate conclusions based on observations and information.

^{**}not recorded on proper scantron forms

GEN ED RESULTS FACULTY TEAM

The average score for the BIO110 students who took the general education questions was 68%. The item analysis is broken down below.

| | % Correct | % Correct | |
|-------------------|-----------|-----------|--|
| Level of question | SP2016 | SP2017 | |
| | N=73 | N=112 | |
| 1 - knowledge | 95% | 84% | |
| 2 - application | 37% | 31% | |
| 3 - application | 63% | 73% | |
| 4 - evaluation | 32% | 31% | |
| 5 - synthesis | 66% | 84% | |