## **Course Outcomes Guide**

Course Title: Bio 104 (Course # changed to Bio 204 for Summer 2017) Date: May 12, 2017

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## **Expected Learning Outcomes:**

Upon completion of Human Anatomy and Physiology II, students will:

- 1. Exhibit the ability to use core content of the Anatomy and Physiology curriculum
- 2. Apply physiological and anatomical principles to the diseased state.
- 3. Demonstrate transfer of information from diagrams, models and non-human models to the human organism.
- 4. General Education: 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.
  - d. Use technology to access scientific information, generate and analyze empirical data, and solve problems.

Assessment (How do or will students demonstrate achievement of each outcome?)

- Cumulative HAPS exam for Bio104
- Comprehensive lab final exam
- General education assessment

Validation (What methods have you used or will you use to validate your assessment?)

- The HAPS exam is nationally normed.
- The comprehensive lab final was developed by the full-time faculty who teach A & P.

**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 data sheet at the end of COG.
- Our students score as high as 13 points above the national HAPS exam average.
- Areas of weakness: blood pressure, endocrine, integumentary, central nervous system, neuron physiology.
- General education questions: See results on the following page.

Follow-up (How have you used or how will you use the data to improve student learning?)

- Individual instructors exam results for each item and then adjust their teaching based on areas where students under achieve.
- We will require more student engagement by requiring Connect activities.

## **Budget Justification**

- Fee added to students enrolling in Bio 103 and Bio 104 (now Bio 203 and Bio 204) for the administration of the HAPS (Human Anatomy and Physiology) Exam.
- Prerequisites are now: Bio 119, Chm 101, or passing of anatomy and physiology exam with a score of 70%.

## Bio 104 Gen Ed SLOA Data (See graphs for individual instructors.)