**Annual Departmental Assessment Report**

**Department of Human Physiology**

**Academic Year of Report: 2020-2021**

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**Learning Objectives Assessed for this Report**

For the undergraduate Human Physiology major:

Driven by the need to turn to online/remote teaching, the primary objectives for our 2020-2021 annual assessment were directed towards the subject of best practices for online teaching and learning.

**Assessment Activities & Actions Taken**

The task of switching quickly to remote teaching was daunting. To help focus our efforts and reign in the associated anxiety, we utilized many of the suggestions and resources available through the UO’s 2020 Intro to Online Course Design summer workshop. We prioritized aligned design, teaching toward inclusion, and active learning.

To help to apply the concept of backward design and alignment to our online courses hoping to create courses that flow, are easy to navigate, and result in students meeting the objectives of the course, we attempted the following:

* To focus upon the elements of backward course design (goals, objectives, summative assessments and formative assessments).​
* To clarify course objectives
* To match examples of course goals and objectives to activities that students experience in the course
* To explain how course assessments and activities are aligned with course objectives

To support our goals for teaching toward inclusion, we considered three different modes of online presence that support inclusion and belonging. [Based on the Community of Inquiry (COI)](https://coi.athabascau.ca/coi-model/) model, these modes include social presence, cognitive presence, and teaching presence. Designing courses with these modes in mind can identify common barriers and improve student engagement and belonging. This model addresses three key principles of inclusive teaching: reflective teaching practice, transparency, and community building.

Active Learning is any learning activity or modality in which the student participates or interacts experientially with the educational content, as opposed to passively taking in the information. When actively engaging with the information they're learning, students perform better. To promote active learning in our class rooms, we utilized multiple strategies and activities:

* Moderated online discussions to engage students with one another
* Polling – live class polling, ‘how do you know if you know what you should know?’
* Breakout room – small group discussions with questions prompts, ‘think-pair-share’, followed by calling upon a member of the breakout room
* Create public health service message on a topic of choice
* Facilitate a class or discussion
* Design and create a video presentation on experimental research findings

**Plans for Next Year**

Prior implementation of our annual departmental assessment (2019-2020) was moderately successful, but incomplete. The aim of the assessment was to create and implement the framework and teaching practices of “core concepts” across six courses in order to improve the educational experience of undergraduates by creating a new model of learning. The creation of materials and the implementation of the ‘core concepts’ went smoothly in the physiology courses (4 of 6 courses). Implementation of the ‘core concepts’ was less successful in the two anatomy courses. Most of the material developed supported the four physiology courses in the series. In addition, the anatomy instructor of record suffered a torn bicep tendon in his dominant hand on the eve of fall term, hindering his ability to update the course during the term, let alone open a door or eat. More significant to the success and completion of the project was the pandemic. By spring term, we were all in teaching survival mode. Completing the implementation of the ‘core concepts’ and following up with the planned assessment tools was not realistic.

For next year, we will hit the reset button on the 2019-2020 annual undergraduate assessment, and assuming no acute disability to an instructor of record or a pandemic, follow it as previously outlined. Much of the work has been done, the main project component to implement being the assessment tool.

Ultimately, the success of the “core concepts” project will be based on students’ knowledge and application of core concepts after having taken the anatomy and physiology sequence. To assess, we plan on utilizing a [Bio-MAPS](http://cperl.lassp.cornell.edu/bio-maps) (Measuring Achievement and Progress in Science) learning assessment tool. [Bio-MAPS](http://cperl.lassp.cornell.edu/bio-maps), specifically the Physiology assessment (Phys-MAPS), is an assessment tool developed to measure large-scale changes in student learning of core physiological principles. This will be administered to students currently taking the Anatomy and Physiology course series and compared to students taking the course following implementation of core concepts learning objectives and frameworks. Ideally, the Phys-MAPS assessments are given to students at several time points throughout the undergraduate major: at the beginning, after the Anatomy & Physiology core course series, and just before graduation. Through surveys and focus groups we also intend to assess the experience of students and G.E.’s engaging in the anatomy and physiology course sequence.

**Resources**

*Biology Measuring Achievement and Progression in Science or Bio-MAPS, is a suite of diagnostic assessments that aim to measure student understanding across a degree program and are aligned with the Vision and Change nationally-validated set of core biology concepts (AAAS, 2011), further elaborated in the BioCore Guide (Brownell et al., 2014).*

[*http://cperl.lassp.cornell.edu/bio-maps*](http://cperl.lassp.cornell.edu/bio-maps)

*American Association for the Advancement of Science (2011). Vision and change in undergraduate biology education: A call to action. American Association for the Advancement of Science, Washington, DC.*

*Michael, Cliff, McFarland, Modell, and Wright. (2017) The Core Concepts of Physiology: A New Paradigm for Teaching Physiology. Springer Publishing on behalf of the American Physiological Society*

*Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. The Internet and Higher Education, 2(2-3), 87-105.*

[*https://coi.athabascau.ca/coi-model/*](https://coi.athabascau.ca/coi-model/)