Department of Human Physiology

Undergraduate Assessment Report

November 21, 2018

# Assessment Procedures

In fall term of 2017 the Department’s Teaching Effectiveness Committee met to discuss potential targets for assessment during the 2017/2018 academic year using the Department’s Curriculum Map and Aligned Learning Outcomes as the basis for discussion.

The target for assessment was to revisit the Department’s General Education offerings and write learning objectives applicable to all of our 100 level courses. Dr.’s Robin Hopkins and Elinor Sullivan were nominated as leads on this work as they are involved with the UO Science Literacy Program and teach general education courses in the department.

Dr.’s Hopkins and Sullivan reviewed the Department’s Curriculum Map and aligned Learning Outcomes which was dated to 2014. Consulting the guiding principles of the UO Science Literacy Program1 and the Core Competencies and Disciplinary Practices from Vision and Change2, Hopkins and Sullivan wrote six learning objectives applicable to all general the general education course offering in the Department.

Their work was brought back to the Teaching Effectiveness Committee and the Department’s Curriculum Map was revised to reflect these new learning outcomes (Appendix 1 pg.5).

# Next Steps

Due to significant changes in faculty and a re-structuring of Department committees, the Department Assessment Plan will now be governed by the Undergraduate Program Committee as opposed to the Teaching Effectiveness Committee. The Undergraduate Program Committee will meet in early December to revisit the assessment plan and decide on next steps for collecting data and targeting other areas of the curriculum for assessment during the 2018/2019 academic year.

1 – UO Science Literacy Program (<https://scilit.uoregon.edu/>)

2 – Vision and Change Final Report (<http://visionandchange.org/finalreport/>)

APPENDIX 1

**Curriculum Map**

*Human Physiology (HPHY) Undergraduate Major*

**Learning outcomes (LOs):** Having completed a major in human physiology, a student will be able to:

1. **Content & Intellectual Breadth:** Demonstrate content knowledge and understanding of terminology, concepts, and relationships in human anatomy and physiology.
2. **Inquiry:** Utilize a broad foundation of anatomical relationships and physiological principles in analysis, application, and synthesis related to human physiology and pathophysiology.
3. **Critical Thinking:** Critically evaluate scientific information to help make decisions with respect to personal health, clinical applications, and research in human physiology.
4. **Life-long Learning:** Demonstrate life-long learning skills, which include deciding what needs to be learned, articulating a learning plan, and implementing this plan.
5. **Communication:** Communicate effectively, to a variety of audiences, in various modes.
6. **Ethics & Professionalism:** Demonstrate knowledge of ethical and professional behavior related to academic integrity, communication with others, and during individual and cooperative work.

**Key:** I = introduces outcome; D = develops outcome; A = assesses mastery of outcome

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course(s)** | **Title/description** | **LO 1** | **LO 2** | **LO 3** | **LO 4** | **LO 5** | **LO 6** |
|  | *200-level required courses* |  |  |  |  |  |  |
| HPHY 211 | Medical Terminology | I |  | I | I | I | I |
| HPHY 212 | Evidence, Inference, & Biostatistics | I | I | I | I | I | I |
|  | *300-level required courses* |  |  |  |  |  |  |
| HPHY 321 | Human Anatomy I | D |  | I | D |  | D |
| HPHY 322 | Human Physiology I | D | I/D | I/D | D | I/D | I/D |
| HPHY 323 | Human Anatomy II | D |  | D | D |  | D |
| HPHY 324 | Human Physiology II | D | D | D | D | D | D |
| HPHY 325 | Human Anatomy & Physiology III | D/A | D/A | D/A | D |  | D |
| HPHY 371 | Physiology of Exercise | D/A | D/A | D/A | D/A | D/A | D/A |
|  | **300-level electives** | D/A | D/A | D/A | D/A | D/A | D/A |
|  | **400-level capstone** | A | A | A | A | A | A |

**Learning outcomes explanations**

*Human Physiology (HPHY) Undergraduate Major*

1. **Content & Intellectual Breadth:** Demonstrate content knowledge and understanding of terminology, concepts, and relationships in human anatomy and physiology.
   1. Identify problems, articulate questions or hypotheses, and determine the need for information.
   2. Access and collect the needed information from appropriate primary and secondary sources.
   3. Use quantitative and qualitative methods, including the ability to recognize assumptions, draw inferences, make deductions, and interpret information to analyze problems in context and draw conclusions.
2. **Inquiry:** Utilize a broad foundation of anatomical relationships and physiological principles in analysis, application, and synthesis related to human physiology and pathophysiology.
   1. Recognize complexity of problems and identify different perspectives from which problems and questions can be viewed.
   2. Evaluate and report on conclusions, including discussing the basis for and strength of findings, and identify areas where further inquiry is needed.
3. **Critical Thinking:** Critically evaluate scientific information to help make decisions with respect to personal health, clinical applications, and research in human physiology.
   1. Identify, analyze, and evaluate reasoning and construct and defend reasonable arguments and explanations.
4. **Life-long Learning:** Demonstrate life-long learning skills, which include deciding what needs to be learned, articulating a learning plan, and implementing this plan.
   1. Demonstrate in-depth knowledge and skills in Human Physiology.
   2. Identify the fundamental principles of Human Physiology.
   3. Apply the research methods and theoretical models of Human Physiology to define, solve, and evaluate problems.
   4. Transfer knowledge and skills gained from general and specialized studies to new settings and complex problems.
   5. Demonstrate life-long learning skills, including the ability to place problems in personally meaningful contexts, reflect on one's own understanding, demonstrate awareness of what needs to be learned, articulate a learning plan, and act independently on the plan.
5. **Communication:** Communicate effectively, to a variety of audiences, in various modes.
   1. Demonstrate general academic literacy, including how to respond to needs of audiences and to different kinds of rhetorical situations, analyze and evaluate reasons and evidence, and construct research-based arguments using Standard Written English.
   2. Effectively use the common genres and conventions for writing within Human Physiology.
   3. Prepare and deliver effective oral presentations.
   4. Collaborate effectively with others to share information, solve problems, or complete tasks.
   5. Produce effective visuals using different media.
   6. Apply the up-to-date technologies commonly used to research and communicate within Human Physiology.
6. **Ethics & Professionalism:** Demonstrate knowledge of ethical and professional behavior related to academic integrity, communication with others, and during individual and cooperative work.
   1. Assembling and analyzing a set of sources that students have determined are relevant to the issue they are investigating.
   2. Acknowledging clearly when and how they are drawing on the ideas or phrasings of others.
   3. Learning the conventions for citing documents and acknowledging sources appropriate to the field they are studying.
   4. Examine various concepts and theories of ethics and how to deliberate and assess claims about ethical issues.
   5. Apply ethical concepts and theories to specific ethical dilemmas students will experience in their personal and professional lives.

**Human Physiology (HPHY) General Education Course Offerings**

The Department of Human Physiology offers three 100-level general education courses that satisfy the Science Group requirement at the University of Oregon:

* HPHY 105 – Principles of Nutrition
* HPHY 111 – The Science of Sex
* HPHY 112 – The Science of Health

Our intention across these courses is to provide non-science majors with relevant knowledge and skills to make informed choices related to their health. Although only HPHY 111 and 112 are Science Literacy Program (SLP) affiliated courses, all of our 100-level offerings strive to exemplify the mission of SLP to foster student-centered learning and empower non-science majors to critique and communicate scientific information. At the end of every HPHY 100-level course students will be able to:

1. Access and assess the trustworthiness of various sources of information.
2. Use the evidence-based process of science to critically assess health information.
3. Explain the anatomy and/or physiology that underlies current health topics and conditions.
4. Communicate health and science concepts across disciplines.
5. Assess and develop goals for improving personal health.
6. Appraise lifestyle and health decisions based on knowledge of anatomy and physiology