

Affordable Learning Georgia: Scaling Up OER Pilot

This is an invited pilot program to scale up select Textbook Transformation Grants projects from an individual faculty / team implementation to a department-wide, all-sections implementation. The deadline for a first departmental semester of implementation will be Fall 2019. For details, please read the Scaling Up OER Pilot Description Page. <https://www.affordablelearninggeorgia.org/about/scaling/>

The maximum award will be \$30,000 per department / team, with a \$5000 maximum per team member if going toward a course release/overload/etc., but project expenses can take up as much of this maximum award as needed. For example, a majority of a team's budget could go toward building a department-wide OER platform, or technology and equipment needed to create ancillary materials.

The completion of this form indicates that your department is agreeing to complete this project. Awards are contingent upon receiving a letter of support from the Department Chair and/or the Dean for this project, sent to Jeff Gallant at jeff.gallant@usg.edu.

Contact Information

Applicant Name *

DeLoris Hesse

Applicant Email Address *

hesse@uga.edu

Applicant Institution *

University of Georgia

Team Members (name, email address) *

These are the team members who will be participating in the work described below. This does not need to be a list of your entire department.

Lindsey L Beebe <lindsey.beebe@uga.edu>

Ann H Massey <ANN.MASSEY@uga.edu>

Daniel McNabney <Daniel.McNabney@uga.edu>

Rob Nichols<rob10367@uga.edu>

Adam Brett Safer <Adam.Safer@uga.edu>

Award and Course Statistics

Award Amount Requested *

This is your requested overall grant amount. Please ensure that this requested amount aligns with your Budget section below.

\$30,000

Course(s) Affected: Course Number *

CBIO2200L, CBIO2210L, CBIO3010L

Course(s) Affected: Course Title *

Anatomy and Physiology I Lab, Anatomy and Physiology II Lab, Human Gross Anatomy Lab

Pre-Project: Average Number of Students Currently Affected Per Academic Year *

Pre-project numbers are current numbers for your own Textbook Transformation Grant project.

1052

Pre-Project: Average Cost Savings Per Student *

\$44.50

Pre-Project: Total Cost Savings Per Academic Year *

\$46,814

Department-Wide: Average Number of Students to be Affected Per Academic Year *

2058

Department-Wide: Average Cost Savings Per Student *

\$47.88

Department-Wide: Total Cost Savings Per Academic Year *

\$98,537.04

Narrative Descriptions

Description of Department *

Please describe your department as it pertains to the instruction of the course(s) affected. Include any unique circumstances, such as a large proportion of part-time / adjunct / graduate instructors, the number of instructors within the department for the course, whether or not instructors shift from one course to another often, etc.

Our department teaches an average of 23 separate laboratory courses that will be affected by this project. All of these laboratories are taught by graduate teaching assistants (GTA) ; we average 16-20 graduate assistants per semester. We also have between 10-15 undergraduate teaching assistants ("peer instructors") that help the GTAs. In addition, the laboratory courses are overseen by five separate faculty instructors.

Faculty are assigned laboratories for an entire academic year. Their assignments may change between years. Graduate and peer instructors shift from course to course and every semester.

Description of Work *

Please describe the new work that would need to be done in order to successfully implement OER and low-cost materials in all sections of the course(s).

There are two aspects of this project. First, there is the writing of new laboratory exercises for the classroom and second is the creation of an instructional manual for the large number of instructors assigned to these courses.

We propose to redesign and re-write the laboratory component of our courses to include inquiry-based laboratory exercises that require students to collect, analyze and interpret real-life data. The goal of these inquiry-based laboratory exercises is to engage students as active participants in the laboratory, and research has demonstrated that inquiry-based laboratory exercises increase undergraduate student engagement, collaboration, and critical thinking skills. Once completed, these laboratory exercises and an accompanying instructional guide will reside in the public domain as open educational resources.

Currently, our laboratories are housed in standard classrooms with no “wet lab” facilities and no possibility of converting this space to accommodate a wet lab. Therefore, there are limited physiology experiments that our students can complete. The laboratory exercises we propose to incorporate into our curriculum use physiology data acquisition systems (ADInstruments’ Advanced Teaching System) that can be used in a dry lab setting and will provide our students with the opportunity to complete a variety of modern anatomy and physiology experiments.

The experiments that we propose will be incorporated into three separate courses (Anatomy and Physiology I, Anatomy and Physiology II, Gross Anatomy).

With the influx of so many new teaching assistants into our courses, this project also proposes to write laboratory guides that ensure teaching and student success. These instructional manuals and guidelines will provide uniformity between all labs and support for the graduate students in charge of these courses.

Quantitative and Qualitative Measures *

Each team will need basic measurements of student perceptions, student learning outcomes / performance, and course-level retention pre- and post-transformation. These are identical to the uniform measurements in a Textbook Transformation Grants Final Report. Please describe how you will collect and analyze data in order to provide these measurements and any additional measures.

Four evaluative processes and measures will be employed to measure the success and impact of the resulting courses. They include

- Measures of cost savings for each student, for each class, and for the semester across participating classes (these are descriptive statistics);
 - Student learning outcome / course success when using our newly authored materials compared against previous semesters/other classes not using these materials (t-tests comparisons of tests/grades);
 - Interviews/surveys with students using new course materials to determine satisfaction, perceived quality, and the student experience of using e-textbooks (qualitative data) and
 - Interviews with the graduate instructors teaching with these newly authored materials, gathered at various points throughout the project (development and execution).
-

Description of Team Roles *

This is a section to describe who within the team is responsible for a particular part of the project - it varies from the team members list above, which is just a name / email address list.

Drs. DeLoris Wenzel Hesse and Dan McNabney will serve as subject matter experts in the creation of laboratory exercises. Drs. Rob Nichols, Lindsey Beebe and Adam Safer will serve as both subject matter experts and instructors of record during implementation. Drs. Dan McNabney and Ann Massey will write and edit the instructor's manual.

Sustainability Plan Beyond Fall 2019 *

Please describe how the project will be sustained past the semester of implementation, including any plans for updates and revisions.

The Department of Cellular Biology plans to continue this lab text into the future. Anatomy and Physiology I, Anatomy and Physiology II, and Gross Human Anatomy are taught every semester, including summer, and will be for the foreseeable future. The newly created lab texts will be hosted on Galileo and available to distribution to other interested institutions.

Accessibility Considerations (optional)

If your team is creating new OER for the course, please describe any steps your team will need to take in order to make newly-created materials accessible to all students.

These materials will be hosted by Galileo. Laboratory exercises will be freely available on eLC (UGA's course management system).

Project Plans

Timeline *

Please provide an overall timeline from the start of the project to the Final Report (due at the end of Fall 2019) with milestones.

April 2018 --Content evaluation and selection of laboratory exercises (currently in progress)

Summer 2018 -- Writing of laboratory exercises.

Aug to Dec 2018 -- Testing of all created labs by an undergraduate team and instructors, exercises edited based upon results.

Dec 2018 - Student satisfaction survey (old labs); graduate instructor surveys (old labs)

Dec 2018- Organizing and uploading new laboratory materials to eLC

Jan 2019 - Launch new labs during Spring 2019

May 2019 - Student satisfaction survey (new labs); graduate instructor surveys (new labs)

May 2019 - Evaluation of effect of new labs on learning outcomes

Summer 2019 - Editing of laboratory exercises and instructor's manual based upon results.

July 2019 - Updated laboratory exercises uploaded to eLC

December 2019 - Student satisfaction survey

December 2019 - Submit final report of findings to ALG

Budget *

Please provide an overall breakdown of where funds within the award would go. Include both personnel and project expenses.

Faculty Department Stipend

Dr. DeLoris Hesse - \$5000

Dr. Dan McNabney - \$5000

Dr. Lindsey Beebe - \$5000

Dr. Ann Massey - \$5000

Dr. Rob Nichols - \$5000

Dr. Adam Safer - \$5000

Submit Application

Grant Application Acceptance Statement *

- I understand and acknowledge that acceptance of Affordable Learning Georgia grant funding constitutes a commitment to comply with the required activities listed in the Pilot Description, and that my submitted proposal will serve as the statement of work that must be completed by my project team. I further understand and acknowledge that failure to complete the deliverables in the statement of work may result in termination of the agreement and funding.

This content is neither created nor endorsed by Google.

Google Forms