OER Revisions and Ancillary Materials Creation Mini-Grant Application

Affordable Learning Georgia aims to support the sustainability of previous Textbook Transformation Grants implementations through revisions of created open educational resources or the creation of new ancillary materials for existing OER. Individuals or teams who would like to apply for an OER Revisions or Ancillary Materials Creation. Mini-grant participants do not need to be the original creators of the resource(s). While we welcome original authors to revise their original materials, the nature of open licenses allows for the revision and remixing of OER materials by anyone as long as the terms of the license are adhered to.

The final deliverable for this category is the revised or newly-created materials as proposed in the application, which will be hosted through GALILEO Open Learning Materials. All revised or newly-created materials will be made available to the public under a Creative Commons Attribution License (CC-BY), unless the original materials were under a more restrictive license such as the inclusion of SA (Share-Alike) or NC (Non-Commercial).

For the purposes of this grant, we define revision as the major improvement of a resource through updates for accuracy, accessibility, clarity, design, and formatting. We define ancillary materials as any materials created to substantially support the instruction of a course using an existing open educational resource(s).

Applicant Name *

Mark Pergrem

Applicant Position *

Physics Professor

Applicant Institution *

Georgia Highlands College

Applicant Email Address *

Please use your institutional email address.

mpergrem@highlands.edu

Other Team Members

Individuals can apply for mini-grants; a team is not required. If you do want to add team members to your grant, please provide the names and email addresses here.

Sharryse Henderson, Biology Professor, Georgia Highlands Collge

Type of Project *

- ○ Revision of pre-existing OER
- ◉ Creation of ancillaries for pre-existing OER
- ○ Other:

Final Semester of the Project *

This is the semester in which the materials created/revised will be completed.

- ○ Fall 2019
- ○ Spring 2020

Proposed Grant Funding Amount: *

This is the total (in a dollar amount) of funding you are requesting for the mini-grant. There is a maximum of $4800, with a maximum of $2000 per team member and $800 for project expenses.

$4800

Currently-Existing Resource(s) to be Revised / Ancillaries Created *

Please provide a title and web address (URL) to each of the currently-existing resources that you are either revising or creating new ancillary materials for below.

https://oer.galileo.usg.edu/physics-collections/1/

Project Description *

In at least one paragraph, describe your project's goals and deliverables.

The subject of physics continues to be one of the most difficult for undergraduate students to master and physics courses experience some of the highest DFW rates of all undergraduate courses. Students struggle both with the conceptual application of physics principles and with mathematical problem solving based on these principles. This effort will create resources aimed at addressing these two areas.

Specifically, a series of videos and narrated whiteboard presentations will be created. Specific topics that have traditionally proven to be especially difficult for students will be addressed in short (generally 3-5 minute) mini-lectures. These will be basic introductions of topics using accessible language and common examples. In addition, accompanying whiteboard presentations will step students through problem solving related to these topics.

The whiteboard presentations will be structured so that students are asked to tackle problems in small steps, first having a go on their own and then seeing the solution as it unfolds. This approach takes the idea of a worked example to the next level. Many students simply read through solutions presented in textbooks rather than trying the problem first and then using the printed solution for hints as needed. This often does more harm than good. This approach will be to present a problem and ask students to complete just the first step in arriving at a solution. The presentation will then show the next step and ask the students to work ahead a bit farther, again and again, until the end result is attained. This approach will emphasize each critical step of problem solving, and will encourage working through examples rather than simply reading through them.

All videos and whiteboard presentations will be closed captioned and transcribed for accessibility.

Timeline and Personnel *

Provide a project timeline with milestones below, keeping in mind your selected Final Semester above. Provide a short description of the roles any additional team members will take on during the activities in your timeline.

Materials will be developed and published throughout Fall 2018 and Spring 2019, with all material completed no later than the end of Summer 2019.

Mark Pergrem, Professor of Physics, GHC
- content expert, presentation creator

Sharryse Henderson, Professor of Biology, GHC
- editing, transcription, closed captioning

Budget *

Please enter your project's budget below. Include personnel and projected expenses. The maximum amounts for the award are as follows: $4,800 maximum award, $2,000 maximum per team member, $800 maximum for overall project expenses. Unlike standard-scale and large-scale transformations, the maximum of $800 is not a required element of the budget, but rather meant primarily for the purchase of specific tools and software which would help with improving resources.

Personnel:
$4000 ($2000 for Mark Pergrem and $2000 for Sharryse Henderson)

Project Expenses:
$800 (iPad Pro)

Creative Commons Terms *

- [x] I understand that any new materials or revisions created with ALG funding will, by default, be made available to the public under a Creative Commons Attribution License (CC-BY), with exceptions for modifications of pre-existing resources with a more restrictive license.