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 *

Shuting Xu

Applicant Position *

Associate Professor

Applicant Institution *

Georgia Gwinnett College

Applicant Email Address *

Please use your institutional email address.

sxu@ggc.edu

Other Team Members

Please provide both names and email addresses here.

Shuhua Lai, slai@ggc.edu

Type of Project *

🔘 Revision of pre-existing OER

⚪ Creation of ancillaries for pre-existing OER

⚪ Other: ....

Course Number(s)

ITEC 2130

Course Title(s)

Web Technologies

Final Semester of the Project *

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

⚪ Summer 2020

🔘 Fall 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.

$4,800

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.

URL: https://oer.galileo.usg.edu/compsci-collections/15/

Project Description *

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

1. Project Title: Revising No-Cost-to-Students Course Materials for ITEC 2130 Web Technologies

2. Goals of the Project:
The goals of the project are to:
- To revise the current course materials developed for ITEC 2130;
- To add auxiliary materials, such as the portal web page;
- To assist potential instructors teach the course more efficiently through the revised and new resources; and
- To improve student engagement in classroom learning.

3. Deliverables:
As a result of the project, we will deliver the following products:
- More instructor-friendly ancillary materials that will contain teaching suggestions and hints on technologies;
- A portal web page; and
- In-class activities, labs, and projects with extra credit parts at increasing level of difficulty/capabilities to suit advanced students in particular.

Project Description:

The no-cost-to-student course learning materials developed for the ALG Proposal "Developing No-Cost-to-Students Course Materials for ITEC 2130 (Web Technologies) at GGC" was completed in spring 2017. Since we started using the developed course materials to the present, the course materials have been used in 20 sections of ITEC 2130 and over 400 students have benefited, which translate to savings to students of approximately $113,080. Two full-time and one part-time IT faculty teaching the ITEC 2130 course have used and are currently using the OER materials. Aside from that, the team recently published a paper entitled "Exploring Open Educational Resources for Teaching Web Technologies", in Proceedings of Information Systems Education Conference 2019. After the presentation at the conference, many audience participants asked questions on how we created the materials, the students' reaction, and the overall impact of the project. It is interesting to note that even GGC IT colleagues who were presenting on other topics were bombarded with questions about our project, even though they were not involved in it. The presentation certainly generated a lot of interest.

The GGC course evaluation results showed that students thought the course materials were

informative, helpful, and engaging. Moreover, we noted higher performance outcomes compared to previous semesters. However, there is still room for improvement based on feedback we have received from students and our part-time faculty who have utilized the materials.

Based on the feedback from faculty and students using the course materials, we would like to revise the course materials in the following ways:

1.   Make the course materials more instructor-friendly. We will add more teaching suggestions and hints on technologies to help instructors teaching the course activities. We will also create a portal web page to organize all of the learning materials more efficiently. Previous in-class activities were organized for each class period. On the new portal web page, the course materials will be organized in a variety of ways: class-period based, chapter based, or category based (slides/in-class activities/labs/projects).
2.   Create real-world scenarios for in-class activities/labs/projects. For example, we will ask students to design a Valentine's Day e-card in the spring semester and a Halloween Party poster in the fall semester. Similarly, for in-class activities, we will create an animated snowman in the fall semester and a moving sailboat at the beach in the spring semester. We hope students will have more fun and thus be more engaged in working on these real-world scenario-based exercises.
3.   Create extra-credit work for in-class activities/labs/projects. For advanced students or students who want to do more practices, we will create more in-class activities/labs/projects with higher levels of difficulty.
4.   Perform editing on all course materials and correct any coding problems.

The team will generate materials that would address the 10 topics in the transformed ITEC 2130 course that we created and continue to update.

Topics and Person Responsible:

•   HTML Basics: Shuting Xu
•   Color and Format using CSS: Shuting Xu
•   Visual Elements: Shuting Xu
•   Page Layout: Shuting Xu
•   Tables: Shuting Xu
•   Forms: Shuhua Lai
•   Multimedia: Shuhua Lai
•   JavaScript: Shuhua Lai
•   jQuery: Shuhua Lai
•   Game design: Shuhua Lai

Dr. Xu is the course coordinator of ITEC 2130 for the past three years. As course coordinator, she is responsible for identifying the textbook used for ITEC 2130. Thus, the proposed course materials will be used in all four IT classes starting in fall 2020. The developed course materials will be stored at the web site https://en.altervista.org (login required) and will be hosted through GALILEO Open Learning Materials.

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.

Project start: November 2019, after the October 28, 2019 kickoff.

The creation of new materials will take the remaining fall and the entire spring semester to complete. We expect to pilot the materials in the fall 2020.

Fall 2019: Dr. Xu will be responsible for developing real-world scenarios for in-class activities/labs/projects used for 5 topics listed before. Dr. Lai will be responsible for developing real-world scenarios for in-class activities/labs/projects used for another 5 topics. Both Dr. Xu and Dr. Lai will also add teaching suggestions and hints for instructors for the topics they take charge.

Spring 2020: Dr. Xu will be responsible for developing extra-credit work for 5 topics, and Dr. Lai will be responsible for developing extra-credit work for another 5 topics. In addition, Dr. Xu will pilot the course materials in spring to one section.

Summer 2020: Revisions will be made on the course materials for full implementation in fall 2020.

Fall 2020: Dr. Xu will be responsible for making the portal web page for course materials. Revised course materials will be used in all sections of ITEC 2130. Both Dr. Xu and Dr. Lai will conduct surveys in classes taught by them and the part-time faculty, and analyze survey data. Dr. Xu will compose final report.

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.

Compensation for two faculty: $2,000 *2 = $4,000

Dr. Xu serves as PI. She will oversee the management of the grant and its reporting. In addition, she will be responsible for creating the proposed resources, teaching suggestions and hints, and extra credit work for five topics. Along with Dr. Lai, she will assess the success of the project. After the grant, Drs. Xu and Lai will continue to update the online course materials and newly created ancillary materials.

Dr. Lai will be responsible for creating the proposed resources, teaching suggestions and hints, and extra credit work for another five topics. He will assist in assessing the grant's challenges, accomplishments, and need for improvements.

Travel: $800

Travel funds are requested for the PIs to attend the Information Systems Education Conference in spring 2021 to present the revised course materials and assessment results.

Total: $4,800

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