Affordable Materials Grants, Round 19:

Continuous Improvement Grants

(Spring 2021 -Spring 2022)

Proposal Form and Narrative

# Notes

* The proposal form and narrative .docx file is for offline drafting and for our review processes. Submitters must use the online Google Form for proposal submission, including uploading this document.
* The only way to submit the official proposal is through the Google Form. The link to the online application is on the [Round 19 RFP Page](https://www.affordablelearninggeorgia.org/about/rfp_r19).
* The italic text provided below is meant for clarifications and can be deleted.

The Round 18 Kickoff will include an asynchronous training module, required for all team members to complete, followed by the synchronous Kickoff Meeting on March 26, 2021 from 1pm-4pm. At least two team members from each awarded team (unless the award is for one individual) are required to attend the synchronous Kickoff Meeting.

# Applicant and Team Information

*The* ***applicant*** *is the proposed Project Lead for the grant project. The* ***submitter*** *is the person submitting the application (which may be a Grants Officer or Administrator). The submitter will often be the applicant—if so, just leave the submitter blank.*

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| --- | --- |
| Requested information | Answer |
| Institution | Perimeter College, Georgia State University |
| Applicant name | Hong Du |
| Applicant email | [hdu7@gsu.edu](mailto:hdu7@gsu.edu) |
| Applicant position/title | Assistant Professor |
| Submitter name | Hong Du |
| Submitter email | hdu7@gsu.edu |
| Submitter position/title | Assistant Professor |

Please provide the first/last names and email addresses of all team members within the proposed project. Include the applicant (Project Lead) in this list. Do not include prefixes or suffixes such as Ms., Dr., Ph.D., etc.

|  |  |  |
| --- | --- | --- |
| Team member | Name | Email address |
| Team member 1 | Hong Du | hdu7@gsu.edu |
| Team member 2 |  |  |
| Team member 3 |  |  |
| Team member 4 |  |  |
| Team member 5 |  |  |

If you have any more team members to add, please enter their names and email addresses in the text box below.

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# Project Information

| Requested information | Answer |
| --- | --- |
| Type of Project | *Revision of open educational resources (OER) used in existing courses* |
| Requested Amount of Funding | *$2000* |
| Course Titles and Course Numbers | Elementary Statistics Math 1401 |
| Final Semester of Project | *Fall 2021* |
| 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 revising, creating new ancillary materials for, or replacing. If replacing, please include a title and web address (URL) to the new OER as well.* | The Elementary Statistics Math 1401 Master Online Course uses low cost materials and a platform called OLI (Open Learning Initiative), offered by Carnegie Melon University. A course description may be found at this URL: <https://oli.cmu.edu/courses/concepts-of-statistics/>. The course is integrated with iCollege as an external learning tool. |

# Project Goals

*In at least one paragraph, describe your project’s goals and what materials will be created or revised.*

The textbook currently used for Math 1401 is *Fundamentals of* *Statistics* 5th edition by Michael Sullivan. The paperback textbook is $150.25 in GSU bookstore. If students choose to purchase 18 weeks of access to the digital textbook only, it still costs $93.50. Additionally, students need to purchase T1-84 calculators for problem solving involved in this course. It is another $90 - $120 expense depending upon where they purchase it. The cost of required material of Math 1401 is at least $200.

Since fall 2020, two other colleagues and I from Perimeter College have piloted the low cost material and platform called OLI. About 12 sections from Perimeter College and all 15 sections of Math 1401 from the Atlanta campus are using OLI as of spring 2021. This OLI courseware currently costs students $40/semester. We do not require students to purchase T1-84. Instead we teach students to do the problem solving using Excel. The Excel software is free to GSU students and is part of their Microsoft 365 package. It can do everything the T1-84 does and, more importantly, it is widely used in industry, which ties into the College-to-Career emphasis of GSU. The required material cost to students in this format is only $40 per semester.

This OLI courseware has great features including:

* Interactive contents such as applets, games, etc.
* A variety of assessments types, including formative, summative, reflective, etc.
* A learning dashboard with tools to analyze student participation and performance

However, some of the OLI course content needs to be revised, improved, or created from scratch to better suit the students in online and face-to-face environment. These include:

* Revision of some chapters to increase readability and clarity. For example, the following chapters and pages need to be reorganized or reformatted, or better examples need to be used.
  + Chapter 3
  + Chapter 4 - page14, 18,20,23, 26, 37
  + Chapter 5 – page 61
  + Chapter 6 – page 67,69
  + Chapter 7 – page 72, 77
  + Chapter 8 – page 81,84,85,92,93, 96
  + Chapter 9 – page 100, 102, 104
* Modification of some data sets and links, which are outdated, need to be modified or removed. For example the link to the data set “Best Actress Oscar Winners” in chapter 4 page 23 is broken and says “Not Authorized” when clicked.
* Development of guided notes to provide students with an outline of the contents and key points of the lessons. In the current OLI contents, students are bombarded with information. Without an outline, the students are not able to easily identify the key points and key takeaways within the chapter. It is also hard for them to connect the current chapter to previous chapters.
* Development of PowerPoint slide decks and lecture notes. The current OLI does not have PowerPoint as an instructor resource. Slide decks and lecture notes must be added to encourage more wide scale adoption in face-to-face and online courses.
* Recording of more videos on how to solve statistical problems using Excel.

After completion of this project, the revised and amended OLI courseware will be piloted by at least 3 faculty members (Cynthia Box, Kim Bennett, Hong Du) across at least 15 sections of Math 1401 at Perimeter College. That is about 300 students. Since all of the sections of Math 1401 at the Atlanta campus already use the current OLI as their course material, it should be relatively straightforward to recruit downtown faculty to pilot this improved version.

# Action Plan

*Describe the tasks needed to complete the project in as much detail as possible. If this application has more than one team member, include the major roles for each person and which tasks this role is assigned. Estimate the amount of time (e.g. number of hours) each task will take. Include plans for open licensing and plans for making your materials accessible. Indicate if you are using other platforms in addition to the repository to host your created materials.*

Anticipated amount of time for each task:

* Attend OLI “create contents using Echo authoring tool” training webinars. These webinar are offered by the OLI team once every two weeks. (5 hours)
* Revise chapter contents including rewriting some paragraphs, update data sets used in OLI and replace/remove outdated applet links (15 hours)
* Develop guided notes that align with the OLI contents (15 hours)
* Develop PowerPoints that align with the OLI contents (15 hours)
* Record videos on solving statistical problems using Excel (15 hours)

Open licensing and material accessible:

The materials and contents will be developed using the OLI authoring tool Echo. I will be using other existing OER materials as reference and as a resource or create my own. There might be other OER materials from which we can pull better examples, data sets or applets. However, most of the videos will be created from scratch.

The revised / developed course materials will be integrated into the current OLI and can then be accessed in iCollege as an external learning tool. I will be using the Echo authoring tool to make revisions and editing. Once it is complete, the course can be deployed into iCollege course and available for students to enroll. To make the material available to instructors to preview, we can have this OLI course added into an iCollege building section.

# Timeline

*Provide a project timeline aligned with the action plan above. Include major milestones and deadlines, keeping in mind your selected Final Semester.*

* May 1, 2021 – May 31, 2021

Attend OLI “create contents using Echo authoring tool” training webinars. These webinars are offered by the OLI team once every two weeks.

* May 1 2021 – May 31, 2021

Revise chapter contents including rewriting some paragraphs, update data sets used in OLI and replace/remove outdated applet links

* June 1, 2021 – July 15, 2021

Develop guided notes that align with the OLI contents

* July 16, 2021 – July 31, 2021

Develop PowerPoint that align with the OLI contents

* August 1, 2021 – August 15, 2021

Record videos on solving statistical problems using Excel

* August, 2021

Ready for piloting

# Budget

*Please enter your project’s budget below. Include personnel and projected expenses, keeping in mind that this grant funds the estimated time in your Action Plan. The maximum amounts for the award are as follows:*

PERSONNEL and FRINGE BENEFITS

Hong Du will receive summer pay in the amount of $1,482 plus $518 in fringe benefits (35% negotiated rate) for the development of the ancillary materials = $2,000.

TOTAL PERSONNEL AND FRINGE BENEFITS = $2,000

TOTAL REQUEST = $2,000

# Creative Commons Terms

*I understand that any new materials or revisions created with Affordable Learning Georgia 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.*

# Accessibility Terms

*I understand that any new materials or revisions created with Affordable Learning Georgia funding must be developed in compliance with the specific accessibility standards defined in the* [*Request for Proposals*](https://www.affordablelearninggeorgia.org/about/rfp_r18)*.*

# Letter of Support

*The Department Chair from the corresponding project, or the Department Chair’s direct report such as the Dean or Provost, must provide a signed Letter of Support for the project. This letter should acknowledge the following:*

* *The department will provide support for fund disbursement in correspondence with the Grants/Business Office.*
* *The department approves of the work on the proposal by the applicant(s).*
* *The department acknowledges the sustainability of these affordable resources after the grant work is complete.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide a letter of support.*

*Please provide the name and title of the department chair (or other administrator) who provided you with the Letter of Support.*

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| *Dr. Barrett Walls*  *Chair of Department of Computer Science and Engineering* |

# Grants or Business Office Letter of Acknowledgment

*Institutional Grants/Business Offices will be responsible for fund disbursement, often in correspondence with the Department Chair, including expense and travel reimbursement. Applicants will need to provide a short Letter of Acknowledgment stating that the Grants/Business Office knows about the applicant’s intent to apply for an Affordable Materials Grant. Either the Department Chair or the Project Lead can work with the Grants/Business Office to get this signed letter.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide a letter of acknowledgment.*

*Please provide the name and title of the grants or business office representative who provided you with the Letter of Acknowledgment.*

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| Glenn Pfeifer  Director  Office of Grants Development and Administration |