Affordable Materials Grants, Round 21:

Continuous Improvement Grants

(Spring 2022-Spring 2023)

Proposal Form and Narrative

# Applicant and Team Information

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| --- | --- |
| Requested information | Answer |
| Institution | Georgia Gwinnett College |
| Applicant name | Alessandra Barrera |
| Applicant email  | abarrera@ggc.edu |
| Applicant position/title | Associate Professor of Biology |
| Submitter name  | Helen McDaniel |
| Submitter email  | hmcdanie@ggc.edu |
| Submitter position/title | Project Coordinator, Office of Research and Sponsored Programs |

Team Members

|  |  |  |
| --- | --- | --- |
| Team member | Name | Email address |
| Team member 1 | Alessandra L. Barrera | abarrera@ggc.edu |
| Team member 2 | Shoshana Katzman | skatzman@ggc.edu  |
| Team member 3 | Jennifer Hurst-Kennedy | jhurstkennedy@ggc.edu |
| Team member 4 | Jennell Talley | jtalley@ggc.edu |
| 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 | *Creation of ancillaries for existing OER courses* |
| Requested Amount of Funding*$10,000 maximum total award per grant* | *$8,000* |
| Course Titles and Course Numbers | Cell Biology BIOL3400K |
| Final Semester of Project | Spring 2023 |
| 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.* | Fundamentals of Cell Biology <https://oer.galileo.usg.edu/biology-textbooks/22/> |

# Project Goals

Georgia Gwinnett College (GGC) has recently completed and adopted the OER textbook, Fundamentals of Cell Biology (<https://oer.galileo.usg.edu/biology-textbooks/22/>) through the ALG grant process (Round 15). The text has been tested and used since Summer 2020 (five semesters) and has positively impacted 22 sections of Cell Biology and over 500 students.

A need for additional materials to supplement the textbook has been determined. The purpose of these materials is to further engage students in the material and support the text content. Goals for the proposed ancillary materials are to:

1) include learning outcomes to identify the main points of each chapter,

2) develop PowerPoints in a standard template to support the faculty and schools adopting this text,

3) write worksheets to support active learning in the classroom, and

4) create content assessment questions that are directly linked to engage students further into the material.

For faculty at GGC and other institutions, the benefit of the generation of these materials is that it will provide easier adoption of this no-cost textbook. One of the largest challenges to adopting new textbook is having to redesign lectures, PowerPoints, and activities to fit the new textbook. These ancillary materials will make this process much easier for faculty and encourage others to use a no cost textbook for their students.

The purpose of this proposal is to develop supplemental materials to support the current OER textbook as it is used by both student and faculty. And to provide new faculty or schools an easier adoption and implementation process of the textbook by the inclusion of these ancillary materials.

# Action Plan

Project Tasks to complete:

* Develop learning outcome topics for each chapter.
* Generate PowerPoint files for each chapter in a standardized format.
	+ The PowerPoint files will have titles slides and subheading slides to identify the chapter and learning outcome topic associated.
	+ The PowerPoint files will have a standardized format to ensure continuity and understanding.
	+ Additional links to publicly available videos that support the content will be embedded in the text.
* Generate active-learning worksheets for faculty to use during class time to support and engage the student in the content.
* Content assessment questions will be written for each chapter to support the learning outcomes and textbook content.
	+ These assessment questions are planned to go below each chapter, but could also be added to the PowerPoint files to support active engagement in class.

***Team members’ roles***

All four team members, Drs. Barrera, Katzman, Hurst-Kennedy, and Talley have taught Cell Biology over several semesters/years during their time at GGC. Each team member will serve as a subject matter expert and instructional designer for the individual learning outcomes that they will be responsible for during the supplemental materials development.

Each team member will:

* Determine the learning objectives for each chapter.
* Determine the standard template for the PowerPoint slides, worksheets and assessment questions to ensure consistency.
* Edit and refine the materials generated by the other team members.
* Pilot the materials in their Fall 2022 Cell Biology sections.

***Additional Roles***

Alessandra L. Barrera, Associate Professor of Biology. As PI of this grant, she will act as the Lead instructional designer for the course, compiling materials, and ensuring continuity of instructional delivery from all modules contributed by team members. This includes, developing a schedule for content submission by team members, distribution to team members for editing, and serve as the subject-matter expert in educational teaching tools. Dr. Barrera will also generate any reports needed for the ALG and coordinate with the ALG website person in the upload of the final materials to the ALG site. Her additional roles will be:

* Generating the initial chapter PowerPoint files, assessment questions, and worksheets for eight of the sixteen chapters.

Shoshana Katzman, Associate Professor of Biology, will serve as a subject matter expert in the development of the initial chapter PowerPoint files, assessment questions, and worksheets for the other eight of the sixteen chapters.

Jennifer Hurst-Kennedy, Associate Professor of Biology and Chair of Studies. As the Chair of Studies of the biology discipline, she can ensure that both PIs are scheduled to teach Cell Biology for all semesters of the grant. Toward the project, she will work to manipulate the generated files produced by Dr. Katzman and Barrera into the standardized format of the PowerPoint slides, worksheets and assessment questions to ensure consistency. Dr. Hurst-Kennedy will be responsible for eight of the sixteen chapters. She will also develop these tools to be accessible to all students (508 compliance). **We will also receive professional support from and work with Ms. Chris Robinson’s Office (GGC Technical Trainer/Writer) who will do a final check of 508 compliance**.

Jennell Talley, Associate Professor of Biology, she will work to manipulate the generated files produced by Dr. Katzman and Barrera into the standardized format of the PowerPoint slides, worksheets and assessment questions to ensure consistency. She will also develop these tools to be accessible to all students (508 compliance). Dr. Talley will be responsible for the other eight of the sixteen chapters.

***Summary of Faculty Roles with estimated work hours***

All faculty will determine the learning outcomes and the standardized format for each PowerPoint template and worksheet. The estimated number of hours that each team member will devote to these tasks will be approximately 5 hours.

In addition to the major tasks above, the first drafts of materials will be written by Drs. Barrera and Katzman. The estimated number of hours that each assigned faculty will devote this task will be approximately 30 hours.

Drs. Hurst-Kennedy and Talley will then edit and unify formatting and ensure 508 compliance. The estimated number of hours that each assigned faculty will devote this task will be approximately 30 hours.

The final materials will be further reviewed by all team members. The estimated number of hours that each team member will devote this task will be approximately 5 hours.

The finalized product will be disseminated internally through GGC’s learning management system and externally through the USG Open Learning Materials Repository.

The team will review similar materials from textbook publishers as well as from available OER ancillary content:

* + Open Textbook Library: <https://open.umn.edu/opentextbooks/>
	+ OpenStax: <https://openstax.org/>
	+ MERLOT: [https://www.merlot.org](https://www.merlot.org/)
	+ OER Commons: <https://www.oercommons.org/>
	+ GALILEO Open Learning Materials: <https://oer.galileo.usg.edu/>
	+ Course Source: <https://www.coursesource.org/courses/cell-biology>
	+ iBiology: <https://www.ibiology.org>
	+ Khan Academy: [www.khanacademy.org](file:///C%3A%5CUsers%5Cabarrera%5CDesktop%5CALG%20supplement%20grant%5Cwww.khanacademy.org)

# Timeline

* All team members will be involved in each of the tasks listed below. Each faculty member will teach one or more sections of Cell Biology during the development process (Spring 2022, Summer 2022, Fall 2022, and Spring 2023
* March 14 -March 18: Develop study guide questions, worksheet format, and PowerPoint Template. The 508 compliance will be discussed for worksheets and PowerPoint templates.
* March 19- April 19: Generate first drafts of all materials
* April 19 – June 1: Edit and unify formats of worksheets and PowerPoints and check for 508 compliance and adjust as needed.
* June 18 – August 1: Make any modifications necessary and update all materials
* August 8 – November 14: Test of materials in Fall 2022 Cell sections (six sections) and obtain feedback and suggested changes from faculty teaching the course.
* November 14- December 1: Make any modifications necessary and update all materials for the final time.
* Early Spring 2023: Submit final materials to ALG and coordinate with the staff member to upload materials onto the Textbook webpage.

# Budget

Georgia Gwinnett College requests for the following budget items:

**A. PERSONAL INDIVIDUAL AWARDS:**

* Dr. Alessandra L. Barrera individual award. Dr. Barrera will serve as project manager. Along with the other team members, she will develop the learning outcome topics for her assigned chapters and generate PowerPoint files for each chapter in a standardized format. Along with Dr. Katzman, she will write the first drafts of materials. She will take the lead in uploading materials, particularly in the USG Open Learning Materials Repository. In addition to the pay, we request funds to cover her fringe benefits. The fringe benefits include FICA MED, FICA SS, and retirement. (Fringe rates differ depending on retirement plans.) We request the following:
	+ Pay: $1,711.01
	+ Fringe benefits: $288.99
	+ Total: $2,000
* Dr. Shoshana Katzman’s individual award. Dr. Katzman will develop the learning outcome topics for her assigned chapters and generate PowerPoint files for each chapter in a standardized format. Dr. Katzman and Dr. Barrera will both write the first drafts of materials. Together with the other members, she will review the final drafts and assist in any other tasks requested by Dr. Barrera. In addition to the pay, we request funds to cover her fringe benefits. The fringe benefits include FICA MED, FICA SS, and retirement. We request the following:
	+ Pay: $1,711.01
	+ Fringe benefits: $288.99
	+ Total: $2,000
* Dr. Jennifer Hurst-Kennedy’s individual award. Dr. Hurst-Kennedy will also be assigned to develop learning outcomes topics for her assigned chapters, develop the chapters’ PowerPoint files, and assist with the review of the final drafts. Together with Dr. Talley, she will edit and unify formatting and ensure 508 compliance. In addition to the pay, we request funds to cover her fringe benefits. The fringe benefits include FICA MED, FICA SS, and retirement. (Fringe rates differ depending on retirement plans.) We request the following:
	+ Pay: $1,568.07
	+ Fringe benefits: $431.93
	+ Total: $2,000
* Dr. Jennell Talley’s individual award. Like her project team mates, Dr. Talley will be assigned to develop learning outcomes topics for her assigned chapters, develop the chapters’ PowerPoint files, and assist with the review of the final drafts. With Dr. Hurst-Kennedy, she will edit and unify formatting and ensure 508 compliance. In addition to the pay, we request funds to cover her fringe benefits. The fringe benefits include FICA MED, FICA SS, and retirement. (Fringe rates differ depending on retirement plans.) We request the following:
	+ Pay: $1,568.07
	+ Fringe benefits: $431.93
	+ Total: $2,000

**B. ADDITIONAL PROJECT EXPENSES: None requested**

**C. TOTAL REQUEST: $8,000**

# Creative Commons Terms

The grant team understands 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.*

All materials generated (worksheets and PowerPoints) will be 508 compliant to ensure accessibility for all students and faculty.

# Letter of Support

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

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| *Dr. Chavonda Mills, Dean of School of Science and Technology, Georgia Gwinnett College* |

# Grants or Business Office Acknowledgment Form

*Name and title of the grants or business office representative who provided you with the acknowledgement form.*

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| Marie L. Firestone, Associate Director, Office of Research and Sponsored Programs |