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

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| --- | --- |
| Requested information | Answer |
| Institution | Georgia Highlands College |
| Applicant name | Brandy Rogers |
| Applicant email  | brogers@highlands.edu |
| Applicant position/title | Assistant Professor of Biology |
| Submitter name  |  |
| Submitter email  |  |
| Submitter position/title |  |

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 | Brandy Rogers | brogers@highlands.edu |
| Team member 2 | Ericka Walczak | ewalczak@highlands.edu |
| Team member 3 | Sharryse Henderson | shenders@highlands.edu |
| Team member 4 | Jason Christian | jachrist@highlands.edu |
| Team member 5 | Jessica Osborne | josborne@highlands.edu |

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* | $2,000 per content expert x 4 members = $8,000$2,000 per librarian/instructional design expert X 1 = $2,000GRAND TOTAL = $10,000 |
| Course Titles and Course Numbers | BIOL 1012K: Introduction to Biology II |
| Final Semester of Project | Spring 2022 |
| 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.* | OpenStax Concepts of BiologyFoundations of Biology Lab Manual<https://oer.galileo.usg.edu/biology-textbooks/18/> |

# Project Goals

In the fifth round of Affordable Learning Georgia Textbook Transformation Grants (ALG 219), Georgia Highlands College adopted and revised an OER textbook, OpenStax Concepts of Biology, in order to provide a free and open-source replacement for high-cost, student-purchased course materials for Foundations of Biology (BIOL 1010) and General Zoology (BIOL 2154). In the twelfth round of ALG Continuous Improvement Grants (ALG M51) GHC created the Foundations of Biology Lab Manual, a no-cost collection of experiential lab activities to support the course objectives of BIOL 1010. With 1,820 downloads since its publication in the GALILEO Open Learning Materials Repository in August 2019, this lab manual has been very popular with students and faculty. The lab manual proposed here will be designed to serve as the follow-up to the Foundations of Biology lab manual and the second in a two-part sequence.

Since the adoption and creation of the OER course materials described above, the School of STEM has restructured Foundations of Biology (BIOL 1010) into a two-course sequence for students in non-STEM pathways; the new sequence consists of Introduction to Biology I (BIOL 1010K) and Introduction to Biology II (BIOL 1012K). General Zoology (BIOL 2154) is now offered as an elective course and is no longer considered part of the Introductory Biology sequence. The primary goal for this project is to create a no-cost lab manual that includes hands-on, experiential lab activities to support the course objectives of BIOL 1012K. To date, BIOL 1012K has been offered solely as a web-based course with virtual lab simulations, and the creation of this lab manual will allow GHC to expand course offerings to include hybrid and face-to-face options for students. Consistent with the purpose of ALG Continuous Improvement Grants, the newly created Introduction to Biology II Lab Manual will align with content from the OpenStax Concepts of Biology textbook and support student comprehension and engagement with the material. Additional goals of the project include the following:

* Develop a series of hands-on, experiential lab activities related to and supporting course objectives for BIOL 1012K
* Curate a collection of supporting materials (primary and secondary articles, websites, etc.) and embed links to supporting materials within the text of lab activities
* Utilize ADDIE principles of instructional design during the revision and/or creation of ancillary materials to allow learners to better navigate resources using a methodical and researched strategy
* Incorporate student surveys in the pilot semester to evaluate each lab activity for clarity, applicability to course content, and usefulness in achieving course learning objectives and integrate student survey feedback into revisions
* Ensure lab manual and all supporting resources adhere to required accessibility design principles for documents, video, audio, images, and PowerPoints
* Ensure lab manual and all supporting documents and resources possess the Creative Commons Attribution License (CC-BY)

# Action Plan

During the progress of this project, we will utilize the ADDIE Instructional Design Model to guide our work. As such, our action plan reflects the five phases of this model:

**ANALYSIS PHASE**: First, we will conduct a detailed needs assessment by administering surveys among the Georgia Highlands College (GHC) STEM faculty. Faculty surveys will focus on the identification of course objectives to be addressed in the new laboratory manual, suggestions for possible inquiry-based activities to be included, and recommendations for formatting and aesthetics. Furthermore, content experts will collaborate with the librarian assigned to the grant team in order to identify any currently available, open laboratory manuals that might contain experiential activities that are not only appropriate for the curriculum of the course but also could be easily incorporated into the new laboratory manual.

**DESIGN PHASE**: Based upon the analysis phase, grant team members will make informed decisions about which course objectives to address in the laboratory manual. Grant team members will identify appropriate inquiry-based or experiential activities to support the topics and then link them to the overall course objectives/outcomes. Content experts on the grant will collaborate with the librarian to determine appropriate instructional strategies and accessibility principles that should be utilized in the creation of the laboratory manual to ensure clarity, ease of use, and accessibility. Finally, grant team members will agree upon a formatting style and design aesthetic to ensure a consistent look and feel throughout the laboratory manual and any supporting ancillary materials created as part of this project.

**DEVELOPMENT PHASE**: Content experts will be assigned a minimum of two topics for which to create and/or revise appropriate laboratory activities/exercises. Each activity will include some combination of the following sections: Introduction & Background, Materials & Methods, Probing Questions & Discussion, Data Tables & Observations, and Analysis & Conclusions. The librarian will curate and embed supporting resources throughout each lab activity. As each activity is completed by the content experts, they will be shared among the grant team members and other GHC faculty, lab staff, and students for peer-review and quality control. The librarian will be responsible for reviewing each lab activity to ensure it is accessible with proper color, font, alt text, and more.

**IMPLEMENTATION PHASE**: All GHC instructors assigned to teach BIOL 1012K will be provided with the new laboratory manual and any supporting ancillary materials through the college’s Learning Management System (LMS). Instructors will pilot the new laboratory manual in their fall 2021 courses. After each laboratory activity is conducted during the semester, students and faculty will complete a brief survey regarding the lab activity. This survey will not only give students and teaching faculty the opportunity to contribute feedback regarding clarity and ease of use but will also allow for yet another review of content for quality control purposes.

**EVALUATION PHASE**: Student and faculty surveys will be analyzed to identify any final revisions to the new laboratory manual. Once revisions are completed, the new laboratory manual and any supporting ancillaries will be uploaded to the GHC Introduction to Biology II LibGuide for public use. Appropriate CC-BY will be assigned to each item. The final grant report will be submitted to the USG and the new laboratory manual for BIOL 1012K - Introduction to Biology II will be uploaded to Galileo Open Learning Materials repository (Manifold).

Five team members (four Biology Faculty and one Asst. Professor of Library and Information Science) have been identified for the completion of this project. The roles and responsibilities of each team member and the estimated time for completion of assigned tasks are outlined below:

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| --- | --- | --- | --- |
| Team member | Role | Tasks | Estimated time  |
| Brandy Rogers  | Project Lead and Content Expert | Generate grant reports and serve as liaison between GHC and USG on grant correspondenceSchedule and facilitate team meetingsDevelop **a minimum of two** lab activities to support BIOL 1012K course objectivesContribute to curation of related resources for each lab activityDevelop and administer faculty surveys to assess needs and priorities for topics/design of lab activities Develop student surveys to capture feedback on clarity, applicability, and usefulness of each lab activityParticipate in peer-review of each lab activity created by team members | **TOTAL = 80 hours** |
| Ericka Walczak | Content Expert | Develop **a minimum of two** lab activities to support BIOL 1012K course objectivesContribute to curation of related resources for each lab activityDevelop and administer faculty surveys to assess needs and priorities for topics/design of lab activities Develop student surveys to capture feedback on clarity, applicability, and usefulness of each lab activityParticipate in peer-review of each lab activity created by team members | **TOTAL = 75 hours** |
| Sharryse Henderson | Content Expert | Develop **a minimum of two** lab activities to support BIOL 1012K course objectivesContribute to curation of related resources for each lab activityDevelop and administer faculty surveys to assess needs and priorities for topics/design of lab activities Develop student surveys to capture feedback on clarity, applicability, and usefulness of each lab activityParticipate in peer-review of each lab activity created by team members | **TOTAL = 75 hours** |
| Jason Christian | Content Expert | Develop **a minimum of two** lab activities to support BIOL 1012K course objectivesContribute to curation of related resources for each lab activityDevelop and administer faculty surveys to assess needs and priorities for topics/design of lab activities Develop student surveys to capture feedback on clarity, applicability, and usefulness of each lab activityParticipate in peer-review of each lab activity created by team members | **TOTAL = 75 hours** |
| Jessica Osborne | Librarian and Accessibility Consultant | Advise and assist content experts on effective instructional design practices to consider and utilize throughout the design and development phases of the projectAdvise and assist content experts on incorporation of accessible document design, inclusion of images with appropriate alt-text, producing accurate closed-captioning video and audio transcripts, and creating accessible PowerPointsAssist in development and distribution of faculty and student surveysContribute to curation of related resources for each lab activity and assist content experts with embedded linksParticipate in peer-review of each lab activity created by team membersUpload lab manual to the LMS, GHC BIOL 1010/1012 LibGuide, and the Galileo Open Learning Material RepositoryEnsure CC-BY added to text and all ancillaries | **TOTAL = 75 hours** |

# Timeline

**Spring 2021 (April – May)**

Analysis phase – Conduct faculty surveys; Compile a list of learning objectives, develop a shared access platform for laboratory ideas; discuss chapter topics and coordinate those topics to laboratory activities/modules; conduct team member meetings for collaborative work and planning (minimum of 2)

**Summer 2021 (May -July)**

Design phase – Finalize learning objectives based on faculty survey and team research; meet with library faculty/ instructional design expert to discuss design and accessibility; agree upon formatting design and consistent aesthetics of laboratory manual; conduct additional team member meeting for collaborative work and planning (minimum of 2)

**Summer 2021 (July – August)**

Development phase – assign activities/modules to each group member (minimum 2 per member); each team member works to create and/or revise their activities/modules; meet with librarian/ instructional design expert to address accessibility issues; team members will submit their laboratory modules to the group for collaborative peer review **no later than** **August 1**; conduct team member meetings as needed (minimum of 2)

**Fall 2021**

Implementation phase – distribute reviewed materials to all instructors of BIOL 1012 laboratories via LMS so instructors can pilot materials in their fall 2021 courses; seek feedback and revision from course instructors, survey students on clarity and understanding after each lab activity/module

**Spring 2022**

Evaluation phase – Completion of survey analysis; use survey results to guide final revisions of lab manual and accompanying ancillaries

Reporting phase - generate and submit the final grant report to USG; upload BIOL 1012K Lab Manual to LMS, GHC LibGuide, and Galileo Open Learning Materials repository

# Budget

All grant funds will be used to support team members in the form of supplemental pay/stipend. No other projects expenses are anticipated. Distribution of funds is outlined below:

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| Team member | Tasks | Budget Amount |
| Brandy Rogers | Generate grant reports and serve as a liaison between the USG and GHC in grant correspondencesCreation and revision of lab activities; faculty/student surveys; other tasks as outlined in Action Plan | $2,000 stipend |
| Ericka Walczak | Creation and revision of lab activities; faculty/student surveys; other tasks as outlined in Action Plan | $2,000 stipend |
| Sharryse Henderson | Creation and revision of lab activities; faculty/student surveys; other tasks as outlined in Action Plan | $2,000 stipend |
| Jason Christian | Creation and revision of lab activities; faculty/student surveys; other tasks as outlined in Action Plan | $2,000 stipend |
| Jessica Osborne | Curate collection of supporting online content for each lab activity and create embedded links to those resourcesAdvise and assist team members on effective instructional design practices and incorporation of required accessibility design principlesUpload all revised materials to the BIOL 1010/1012 LibGuide and Galileo Open Learning Material RepositoryOther tasks as outlined in Action Plan | $2,000 stipend |
| TOTAL |  | $10,000 |

# 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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| Sarah Coakley, Dean, School of STEM |

# 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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| Krissy Shanahan, Grants Administrator |