Affordable Materials Grants, Round 21:

Continuous Improvement Grants

(Spring 2022-Spring 2023)

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 21 RFP Page](https://www.affordablelearninggeorgia.org/about/rfp_r21).
* The italic text provided below is meant for clarifications and can be deleted.

The Round 21 Kickoff will include an asynchronous training module, required for all team members to complete, followed by the synchronous Kickoff Meeting on March 25, 2022 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 | Clayton State University |
| Applicant name | John Meyers |
| Applicant email  | JohnMeyers@clayton.edu |
| Applicant position/title | Associate professor of chemistry |
| Submitter name  | John Meyers |
| Submitter email  | JohnMeyers@clayton.edu |
| Submitter position/title | Associate professor of chemistry |

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 | John Meyers | JohnMeyers@clayton.edu |
| Team member 2 | Aubrey Dyer | AubreyDyer@clayton.edu |

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

|  |
| --- |
| N/A |

# Project Information

| Requested information | Answer |
| --- | --- |
| Type of Project | * *Revision of open educational resources (OER) used in existing courses*
* *Creation of ancillaries for existing OER courses*
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| Requested Amount of Funding*$10,000 maximum total award per grant* | *$4,000* |
| Course Titles and Course Numbers | Survey of Chemistry I (CHEM 1151) |
| 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.* | 1. Chemistry for Allied Health (Soult). (2020, August 13). University of Kentucky. [https://chem.libretexts.org/@go/page/155628](https://chem.libretexts.org/%40go/page/155628)
2. The Basics of GOB Chemistry (Ball et al.). (2021, November 4). [https://chem.libretexts.org/@go/page/15919](https://chem.libretexts.org/%40go/page/15919)
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# Project Goals

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

This proposal serves as an extension of the work conducted during a Round 17 Textbook Transformation Grant (Grant #544), in which the team members were directly involved. During this grant, our team focused on Survey of Chemistry I (CHEM 1151), which is the first course of a two-semester sequence taken primarily by undergraduate students majoring in health sciences (e.g, pre-nursing and pre-dental hygiene students). Students looking to fulfill the Area D science course requirement as well as dual-enrollment students also enroll in this course. As a result of the previously awarded grant, the team redeveloped the course learning objectives, examined already existing OER, created course material independent of a textbook, and implemented the use of a low-cost online homework system. These efforts came as a huge cost savings to our students, who are typically first-generation college students relying on Pell Grants and Hope scholarships to afford college. Specifically, Grant #544 started in the Fall 2020 semester and ended in the Summer 2021 semester. Since the start of the grant, we have saved about 460 students approximately $69,000. Our proposal aims to sustain cost savings and student success by providing our students with an oft-requested free textbook.

While there are commercially available textbooks for this course sequence, there are limited options for OER resources. There are no such options for this level of instruction available through OpenStax (only for STEM majors). The cited textbooks of Ball et al. and Soult are currently available through LibreText, but the layout of these sources do not align with the layout of the new course learning objectives. In addition, these texts are designed for a one-semester GOB whereas our course is the first semester of a two-semester sequence. As such, the goal of this proposal is to adapt already existing OER textbooks to create a custom electronic textbook for Chem 1151. By combining and modifying components of various OER sources as well as supplementing with our own additions, we aim to create a free and living textbook designed for the needs of our students. This will allow us to regularly update our textbook in order to provide our students with new and engaging resources and technologies.

As we both regularly teach Chem 1151 and played a large role in redesigning the course learning objectives, we are knowledgeable in the content to include, the areas in which our students struggle (so we know where to focus supplementation), and are genuinely interested and invested in producing a quality resource. Results from attitudinal surveys of previous students during the previous grant period showed a strong favorable reaction toward our newly created lecture materials (e.g., lecture notes, handouts, and lecture slides). We are confident that we can continue the trend with this new customized OER textbook.

# 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.*

The required tasks include reevaluating already existing OER textbooks (Meyers and Dyer). Sources such as Ball et al. and Soult have been examined during a preliminary review, but other sources may be identified during a more in-depth search. Once the sources are identified, we will create a correlation guide for each source in order to align the sources’ topics with our new course learning objectives (Meyers). We can then combine and rearrange the already existing material to create an order in line with our topics list (Dyer). At this point, we can then start editing (Meyers and Dyer). We will identify areas where fortification of information is required based on our students needs and supplement accordingly. Our goal is to focus on students in the health sciences. We will ensure examples and topics relevant to that field are included and emphasized. We plan on biweekly meetings to keep each other accountable.

The assignment of tasks is listed in parentheses above. We are expected to teach 14 contact hours per fall/spring semester, which usually amounts to an assignment of 5 classes per semester. Considering our research and service requirements in addition to teaching, a normal work week averages 50-55 hours. We predict that we can realistically dedicate 2 additional hours per week toward this project and still complete our current responsibilities. With 15 weeks in each of the Fall 2022 and Spring 2023 semester, we can amass 120 hours of work toward this project. We anticipate that reviewing existing OER, correlating with our curriculum, and reordering the existing OER should take no more than 10 hours. Considering that our new CHEM 1151 curriculum has 10 units, the remaining time allots 11 hours per unit. This includes the editing and additions (text and figure) by one team member as well as a review of that unit’s chapter by the other team member.

We will host this electronic textbook on the learning management system used by CSU for ease of use by students. Additionally, we will make our product available for public use by hosting a version on the Chemistry LibGuide hosted by our university’s library.

# Timeline

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

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| --- | --- | --- |
| **Task** | **Lead** | **Date(s)** |
| Reevaluating already existing OER textbooks | Meyers and Dyer | May 2022 |
| Create correlation guide to align source topics with new course learning objectives | Meyers | June – July 2022 |
| Combine and rearrange existing material to align with learning objectives/order | Dyer | July – August 2022 |
| Editing of assembled materials | Meyers and Dyer | August – December 2022 |
| Inclusion of additional figures and example problems | Meyers and Dyer | November 2022 – February 2023 |
| Creation of example problem worksheets | Meyers and Dyer | February – March 2023 |
| Final draft review | Meyers and Dyer | March 2023 |

# Submit final report summarizing findings of impact for all sectionsBudget

*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:*

$4,000 ($2,000 per team member)

# 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.*

# 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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| *Cass Parker, Chair of the Department of Chemistry and Physics, Clayton State University* |

# Grants or Business Office Acknowledgment Form

*Institutional Grants/Business Offices will be responsible for fund disbursement, often in correspondence with the Department Chair, including expense and travel reimbursement. All applicants will need to provide a signed Acknowledgement Form, the template for which is linked on the RFP page, 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 form.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide this form.*

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

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| *Dr. Melody Carter,* *Chief Sponsored Research and Programs Officer/Special Assistant to the President* |