Affordable Learning Georgia Affordable Materials Grants  
Transformation Grants Final Report

*(or Textbook Transformation Grants, if R17 or earlier)*

Once you have completed this template, to submit your Final Report, go to the [Final Report submission](https://survey.zohopublic.com/zs/xTCCvG) form.

The final report submission form allows you to submit the following:

* This completed narrative document (required)
* Syllabus or syllabi (required)

*If multiple files, compress into one .zip folder*

* Qualitative/Quantitative Measures data files (optional, as needed)

*If multiple files, compress into one .zip folder*

* Photo of your team or a class of your students for future ALG promotions (optional)
* Invoice for the second half of the grant’s award amount (optional)

Follow the instructions on the webpage for uploading your documents. Based on receipt of this report, ALG will process the final payment for your grant. ALG will follow up in the future with post-project grantee surveys and may also request your participation in a publication, presentation, or other event.

# General Information

**Date: May 3, 2022**

**Grant Round: 19**

**Grant Number: 547**

**Institution Name(s): Georgia Southern University**

**Project Lead: Christine Whitlock**

**Team Members (Name, Title, Department, Institutions if different, and email address for each):**

**Christine Whitlock, Professor, Dept of Chemistry & Biochemistry,** [**cwhitlock@georgiasouthern.edu**](mailto:cwhitlock@georgiasouthern.edu)

**Dawn Cannon-Rech, Assistant Professor, Library, dcannonrech@georgiasouthern.edu**

**Course Name(s) and Course Numbers: Principles of Drug Design (CHEM 5420/5420G)**

**Semester Project Began: Spring 2021**

**Final Semester of Implementation: Spring/Summer 2022**

**Total Number of Students Affected During Project: 71**

# Narrative

A. The key outcomes of our project were overall positive. In all sections of Principles of Drug Design (CHEM 5420/5420G), the traditional hard-copy textbook was switched to a free, open-source textbook. All students had access to the book through our university’s learning management system.

Results show that the students appreciated both the format and the lack of cost. They found the hyperlinks to different topics useful. Student performance remained neutral.

B. As seen in previous transformations, the primary lesson learned is that many (probably most) of our students will use the textbook only when necessary-regardless of the format. They are comfortable with a digital format that includes hyperlinks, so they are more likely to use the free, online version than a hard-copy book.

Next time (Summer 2022), I will list the link for the online textbook in a more prominent place on the course’s learning management system. It is currently listed within the syllabus. In the future, I will make a separate textbook tab located near the top of the home page.

We also hired two undergraduate students to help with the analysis of the student survey. This went well, but the students did not work nearly the allotted hours. We simply did not have very many responses to the online surveys.

# Quotes

“The organization of the material (considering this was an online course) was well constructed and easy to follow to optimize learning.”

“The required reading and articles provided (contributed to learning).”

“I don't think anything has to be changed”

# Quantitative and Qualitative Measures

## Uniform Measurements Questions

*The following are uniform questions asked to all grant teams. Please answer these to the best of your knowledge.*

**Student Opinion of Materials**

**Was the overall student opinion about the materials used in the course positive, neutral, or negative?**

Total number of students affected in this project: \_\_\_\_71\_\_\_\_\_\_

* Positive: \_\_\_93\_\_\_\_ % of \_\_15\_\_\_\_\_\_ number of respondents
* Neutral: \_\_\_7\_\_\_\_ % of \_\_\_15\_\_\_\_\_ number of respondents
* Negative: \_\_\_0\_\_\_\_ % of \_\_\_15\_\_\_\_\_ number of respondents

**Student Learning Outcomes and Grades**

**Was the overall comparative impact on student performance in terms of learning outcomes and grades in the semester(s) of implementation over previous semesters positive, neutral, or negative?**

*Student outcomes should be described in detail in Section 3b.*

Choose One:

* \_\_\_ Positive: Higher performance outcomes measured over previous semester(s)
* \_x\_\_ Neutral: Same performance outcomes over previous semester(s)
* \_\_\_ Negative: Lower performance outcomes over previous semester(s)

**Student Drop/Fail/Withdraw (DFW) Rates**

**Was the overall comparative impact on Drop/Fail/Withdraw (DFW) rates in the semester(s) of implementation over previous semesters positive, neutral, or negative?**

*Depending on what you and your institution can measure, this may also be known as a drop/failure rate or a withdraw/failure rate.*

\_\_\_\_0\_\_\_% of students, out of a total \_\_\_30\_\_\_\_ students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

* \_\_x\_ Positive: This is a lower percentage of students with D/F/W than previous semester(s)
* \_\_\_ Neutral: This is the same percentage of students with D/F/W than previous semester(s)
* \_\_\_ Negative: This is a higher percentage of students with D/F/W than previous semester(s)

## Measures Narrative

# As established in our proposal, impact data was collected mainly as pre- and post- course surveys of students. Results from the Summer 2021 (blue) and Fall 2021 (green) student post-surveys (n = 8 and 13, respectively) showed that the students appreciated both the format and the lack of cost. They found the hyperlinks to different topics useful. Nearly 89% of the students agreed or strongly agreed that the textbook was a good value. They are comfortable with a digital format.

# In response to the question about the ability to “access course materials,” 95% of the respondents were positive.

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Description automatically generated

A picture containing chart

Description automatically generated

# In response to the question about “current content,” 90% of the respondents were positive.

Chart, bar chart

Description automatically generated

Chart

Description automatically generated

# In response to the question about “good value,” 89% of the respondents were positive.

A picture containing chart

Description automatically generated

Chart

Description automatically generated with medium confidence

# Sustainability Plan

# The transformation was completed in December 2021 and will continue in Summer 2022 and beyond.

# The project leader will guarantee that the course materials are up to current standards and applicable in future semesters. She will also be responsible for uploading the new materials on the learning management system, hence providing sustainable solutions. After successful implementation of the materials, the data collected will be disseminated on various local, regional and national conferences focused on teaching and learning (USG, STEM, SoTL), and chemical education (American Chemical Society) conferences. The PI may disseminate the results in the peer-reviewed journals such as Journal of Chemical Education or International Journal of Scholarship of Teaching and Learning (IJSoTL).

# Future Affordable Materials Plans

The successful changes encourage me to examine similar changes in my other courses. At the time, I have made transformations in the two courses I have impact in textbook selection.

# Future Scholarship Plans

The early success of this project led to the presentation of a poster at the Spring 2022 National Meeting of the American Chemical Society. A future publication is also being investigated.

# Description of Photograph (optional)

*None*