**Affordable Learning Georgia Textbook Transformation Grants**

**Final Report**

*To submit your Final Report, go to the Final Report submission page on the ALG website:* [*http://affordablelearninggeorgia.org/site/final\_report\_submission*](http://affordablelearninggeorgia.org/site/final_report_submission)

*Final report submission requires four files:*

* *This completed narrative document*
* *Syllabus or syllabi* 
  + *(if multiple files, compress into one .zip folder)*
* *Qualitative/Quantitative Measures data files* 
  + *(if multiple files, compress into one .zip folder)*
* *Photo of your team or a class of your students w/ at least one team member, minimum resolution 800x600px* 
  + *(nearly all smartphones take photos larger than this size by default)*

*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: December 10, 2019**

**Grant Round: Spring 2018**

**Grant Number: 374.c**

**Institution Name(s): Abraham Baldwin Agricultural College**

**Project Lead: Dr. Leslie Pryor McIntosh**

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

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**Course Name(s) and Course Numbers:** BIOL 2011L: Anatomy and Physiology I Laboratory

BIOL 2012L: Anatomy and Physiology II Laboratory

**Semester Project Began:** Fall 2018

**Final Semester of Implementation:** Fall 2019

**Total Number of Students Affected During Project: 415**

# 1. Narrative

A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:

* Summary of your transformation experience, including challenges and accomplishments
* Transformative impacts on your instruction
* Transformative impacts on your students and their performance

A. The key outcomes of this project include the replacement of a conventional anatomy and physiology lab manual with an open access electronic anatomy and physiology lab manual in both anatomy and physiology 1 and 2 laboratory course. This open access electronic A&P lab manual includes learning objectives, pre-lab activities, lab activities and exercises, and post lab questions for 22 laboratory chapters. The main challenge in this project was the sheer volume of work that needed to be completed. Furthermore, finding an electronic method of delivery was challenging. We began the project using One Note, but the One Note file was difficult to format and not print-friendly. Other options were explored, such as Openstax, which was advised against. It was decided to just write all labs as a word document for now, until better options for electronic were discovered, or made available. We consider this project to be a pretty substantial undertaking and accomplishment, because our students now have a highly tailored, free anatomy lab manual. We hope that with continuous revisions and feedback, we can build an open source manual that will benefit other institutions as well.

B. Describe lessons learned, including any things you would do differently next time.

Our main problems occurred with faculty ‘buy in’. Having 4 different professors teaching their own lab sections resulted in some professors not wanting to change how they taught the lab. In the future, it would be better to have buy in from the whole department teaching the labs as clearly our results show that the lab manual that was created from this project was an overall success with the students.

# 2. Quotes

* Provide three quotes from students evaluating their experience with the no-cost learning materials.

|  |  |
| --- | --- |
|  |  |
| Free helps every student! | I would have liked the option to buy a printed lab manual at the beginning of the semester that I could have used my financial aid to purchase. Having to print the lab manual weekly was a hassle and also took money out of my own pocket. The idea is nice, but not everyone has easy access to computers and printers away from school. For some of us, it was an extra trip to town with our children in tow, just to print the manual. |
| I liked having access to the free manual. It was helpful not having to spend more money, and it was very useful for the labs. | It was a great, affordable option, |
| I think it made everything go smoothly. | Lab Manuel was very helpful., |
| I enjoyed always having access to a free lab manual rather than having to save up money to purchase a lab manual I would only use for one or two classes | I enjoyed the free digital lab manual and learned a great deal in the class. I’m glad I didn’t have to buy one |
| I feel as though the digital resources that were available during the lab were helpful because I could download them and by me personally using Mac products I could pick up where I left off on any of my Mac devices. It’s also convenient to read and review no matter where I was. | I did like the online textbooks. they were easier and applied more to our tests than another book would have been |

# 3. Quantitative and Qualitative Measures

## 3a. 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: \_\_415\_\_

“How do you think the quality of a FREE DIGITAL TEXTBOOK compares to a traditional printed textbook?”

* Positive: 38.7% of **31** number of respondents
* Neutral: 51.6 % of **31** number of respondents
* Negative: 9.6% of **31** 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)
* \_\_\_ Neutral: Same performance outcomes over previous semester(s)
* X 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?**

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

\_**38.48**\_% of students, out of a total \_\_**177\_**\_\_\_\_ students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

* \_\_\_ 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)
* \_**X**\_ Negative: This is a higher percentage of students with D/F/W than previous semester(s)

## 3b. Measures Narrative

*In this section, summarize the supporting impact data that you are submitting, including all quantitative and qualitative measures of impact on student success and experience. Include all measures as described in your proposal, along with any measures developed after the proposal submission.*

*[When submitting your final report, as noted above, you will also need to provide the separate file (or .zip with multiple files) of supporting data on the impact of your Textbook Transformation, such as surveys, analyzed data collected, etc.]*

* *Include measures such as:*
  + *Drop, fail, withdraw (DFW) delta rates*
  + *Course retention and completion rates*
  + *Average GPA*
  + *Pre-and post-transformation DFW comparison*
  + *Student success in learning objectives*
  + *Surveys, interviews, and other qualitative measures*
* *Indicate any co-factors that might have influenced the outcomes.*

*When comparing DFW rates between the Fall semester before implementation (35.6%) and the final Fall semester of implementation (38.7%), we saw a slight increase in the DFW rate. However, this increase may also reflect a substantial change in the delivery of exams that occurred between the semester. In the semester before implementation, the lab exams were all multiple choice, whereas in the final semester of implementation, the lab exam were all free response identification. We considered this a major improvement to the quality of the course, as the free response ID questions are better at testing knowledge. In light of this change, we feel that a 3% increase in the DFW rate that occurred with alongside this increase in rigor signifies that our students are more prepared leaving the course than in previous semesters. We feel that an increase in preparation is a better indicator of success than a decrease in DFW rate, which is easily manipulated.*

*Based on the student satisfaction survey, our students were overwhelmingly satisfied with the use of a free online lab manual in their anatomy and physiology course. In the past, we have observed frustration on the student and teacher side with the previous lab manual, as it was not clear in providing learning objectives to the students and included a lot of extraneous information. Our open access manual provides clear learning objectives and highly focused activities and exercises at no cost to the students.*

# 4. Sustainability Plan

* *Describe how your project team or department will offer the materials in the course(s) in the future, including the maintenance and updating of course materials.*

*Every year, our lab instructors/ professors will evaluate each lab in terms of its accuracy and also relevance. Notes for each lab exercise will be taken and professors will meet twice in a semester to discuss changes that will be made to improve the manual.*

*We will also gather feedback from any other institutions that will be using the manual as well as continue to survey our students about the manual. The manual will be modified, and changes submitted by August 20th of each year (prior to the beginning of the Fall semester).*

# 5. Future Plans

* *Describe any impacts or influences this project has had on your thinking about or selection of learning materials in this and other courses that you will teach in the future.*
* *Describe any planned or actual papers, presentations, publications, or other professional activities that you expect to produce that reflect your work on this project.*

*This project has inspired the creation of many other resources, such as dissection lab videos and images and activity worksheets, some of which are completed and some of which are in progress.*

# 6. Description of Photograph

* *On the Final Report Submission page, you will be submitting a photo. In this document, list the names of the people shown in this separately uploaded photograph, along with their roles.*

*The attached photo is a picture of the ABAC faculty of the Department of Sciences and Mathematics at the Fall 2019 graduation ceremony. In the photo you will see several members of our team, (Heather Cathcart, Arielle Hunt, Kingsley Dunkley, and Andrew McIntosh). Not pictured are Leslie McIntosh and DeLoris Hesse, who reside at other instiutions.*

*The members in this photographed co-authored this manual.*