

**Affordable Learning Georgia Textbook Transformation Grants
Round 2
Summer 2015, Fall 2015, Spring 2016
Proposal Form and Narrative**

Institution Name(s)	Dalton State College				
Team Members (Name, Title, Department, Institutions if different, and email address for each)	Susan Burran, Assistant Professor of Biology and David DesRochers, Assistant Professor of Biology Department of Natural Sciences, School of Science, Technology, and Mathematics				
Sponsor, Title, Department, Institution	Dr. Andrew Meyer, Associate Vice President for Academic Affairs & Professor of Biology, Dalton State College				
Course Names, Course Numbers and Semesters Offered (Summer 2015, Fall 2015, or Spring 2016)	Principles of Biology I (BIOL 1107) and Principles of Biology II (BIOL 1108) Fall 2015 for implementation				
Average Number of Students Per Course Section	32	Number of Course Sections Affected by Implementation in Academic Year 2015	46	Total Number of Students Affected by Implementation in Academic Year 2015	1300
Award Category (pick one)	<input checked="" type="checkbox"/> No-Cost-to-Students Learning Materials <input type="checkbox"/> OpenStax Textbooks <input type="checkbox"/> Course Pack Pilots <input type="checkbox"/> Transformations-at-Scale				

<p>List the original course materials for students (including title, whether optional or required, & cost for each item)</p>	<p>DSC Biology Lab Manual, <i>required</i></p>	<p>Total Cost</p> <p>\$84.25</p>	
<p>Plan for Hosting Materials</p>	<p><input type="checkbox"/> OpenStax CNX</p> <p><input checked="" type="checkbox"/> D2L</p> <p><input checked="" type="checkbox"/> LibGuides</p> <p><input type="checkbox"/> Other _____</p>		
<p>Projected Per Student Cost</p>	<p>\$0.00</p>	<p>Projected Per Student Savings (%)</p>	<p>100%</p>

1. PROJECT GOALS

Provide cost-effective course resources for economically disadvantaged students enrolled in the Principles of Biology course sequence.

1.1 STATEMENT OF TRANSFORMATION

- Dalton State College serves many economically disadvantaged students in Northwest Georgia. Course materials for the Principles of Biology sequence (BIOL 1107 and BIOL 1108) are cost-prohibitive for many of our students. As a result, many students refrain from purchasing some or all of the necessary materials. To mitigate this, the instructors of these courses have consistently committed to reducing costs to students, and have already implemented the OpenStax textbook for 1107/1108 (a cost reduction of \$194.50 per student). The next step to further improve resource availability for students is to adopt Open Educational Resources (OER) for lab activities as a substitution for a traditional lab manual.
- Faculty within the Natural Sciences Department have unanimously voted in support of pursuing OER for lab activities for these courses.
- Using OER would improve both student access to course materials, as well as greatly reduce the economic burden on students. Additionally, Individual lab activities could be easily interchanged or updated as faculty see fit, an advantage not currently available using a traditional lab manual. This allows for greater insurance that the labs used closely align with topics taught in the course, which could improve student success.

1.2 TRANSFORMATION ACTION PLAN

- All instructors for the 1107/1108 courses will be polled on which lab activities need to be greatly revised. An *ad hoc* committee of faculty members will work with the faculty team to provide collaborative input on revision and/or creation of new lab activities. The faculty team will use this input to decide which new/revised labs to use. Once new labs have been identified, the faculty team will work with the committee to create individual lab assignments.
- If new labs are selected, then the faculty team will advise and instruct faculty who teach the course how to effectively teach the new labs.
- Faculty team members include Susan Burran to function as the coordinator for the 1107 course and David DesRochers as the coordinator for the 1108 course.
- All lab materials will be made available to students as downloadable PDF files on individual faculty members' D2L websites.
- The faculty team will pursue Creative Commons licensure for newly created instructional materials. Open access will be provided via a publicly-accessible LibGuide generated by the Dalton State College library; additionally, materials will be submitted to an open educational resource database (such as the Georgia Knowledge Repository or MERLOT).

1.3 QUANTITATIVE AND QUALITATIVE MEASURES

- Student feedback surveys will be conducted twice per semester (at midterm and at the semester conclusion) to evaluate student experience using the lab materials. These will be performed during the Spring 2015 semester (using the current lab manual), as well as the Fall 2015 semester (using the online lab manual). Both courses (1107 and 1108) will be included in the surveys.
- Faculty surveys will be conducted during the Fall 2015 semester to assess instructor experience and opinions of the new 1107/1108 labs.
- Learning Objective assessment (WEAVE data and Pre/Post Tests) will be evaluated as a quantitative measure of student success. Data from Spring 2015 (pre-implementation) will be compared with data from Fall 2015 (post-implementation). We hypothesize that student success will improve as a result of implementation of the online lab manual.

1.4 TIMELINE

- Jan. 12, 2015
 - Poll biology faculty teaching 1107/1108 to determine which labs they want to replace, revise, and retain
- Jan. 19, 2015
 - Evaluate poll responses to determine which labs need to be replaced, revised, and retained
 - Plan successful replacement and revision of labs with committee.
 - Assign committee members to identify new labs or techniques to determine if they will be practical to adopt.
- February 2, 2015
 - Attend kick-off training/implementation meeting
- February 16, 2015
 - Discuss as a committee selected labs and achieve consensus on which labs to adopt/revise
- February 17 – May 9, 2015
 - Faculty team will conduct new/revised labs to determine feasibility
 - Administer initial student experience survey at mid-term (Late February)
 - Administer final student experience survey at close of semester (Early May)
- May 10
 - Contact course instructors with revised lab activities with detailed instructions on how to complete adopted/revise lab activities.
- Summer 2015
 - Faculty team will offer instructional meetings on how to conduct new labs.
 - Lab activities will be uploaded to 1107/1108 faculty D2L websites.
- August – November 2015
 - Faculty will carry out new and revised labs in 1107 and 1108.
 - Administer initial student experience survey at mid-term (Mid October)
 - Administer final student experience survey at close of semester (Late November)
 - Administer faculty surveys
- October 15, 2015
 - Submit midterm report
- December 2015
 - Analyze data comparing student experience
 - Analyze quantitative data to assess impact on student success
- February 15, 2016
 - Submit final report

1.5 BUDGET

- \$5,000 for Susan Burran, salary for adoption of new lab activities for 1107 that include chairing an *ad hoc* committee that will select the new activities. Additional responsibilities include preparing surveys for faculty feedback about the redesign and surveys for students, as well as providing the final report for 1107.
- \$5,000 for David DesRochers, salary for the same activities previously listed for Burran. However, DesRochers will be focusing on 1108.
- \$800 for project expenses including travel to a grant kick-off meeting.

1.6 SUSTAINABILITY PLAN

- On average, 12% of the student body enrolled each semester takes either 1107 or 1108. Non-biology majors make up 85% and 70 % of the students enrolled in 1107 and 1108, respectively. This means that the two courses are vitally important to students at Dalton State College.
- Adoption of the OER for the 1107/1108 lab series would result in a campus-wide savings of over \$43,000 per semester.
- The faculty will meet annually to review the effectiveness of labs, and will replace and revise lab activities as needed to continue improving these courses.

1.7 REFERENCES & ATTACHMENTS

Please see attached letter of support.

PROPOSAL SUBMISSION: ALL PROPOSAL DOCUMENTS, REFERENCES, AND ATTACHMENTS MUST BE SUBMITTED IN A SINGLE EMAIL TO ALG@GATECH.EDU.

DEADLINE FOR CATEGORIES 1-3: 5:00 PM, NOVEMBER 30, 2014



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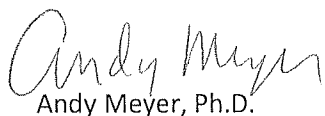
Dear ALG Committee

Dr. David DesRochers and Susan Burran have asked me to write a letter of support on their behalf with regards to the Affordable Learning Grants and I am happy to support their efforts. They plan to build on the fact that our biology faculty have already adopted the OpenStax Biology Textbook for Biology 1107 and 1108 by developing no cost to student lab materials. By their efforts we would be able to offer a two semester lab sequence without requiring students to purchase either a textbook or a lab manual.

Their plan will involve all of the biology faculty currently teaching courses in the Biology 1107/1108 sequence. They will begin by assessing current labs and redesigning the labs as needed to meet course requirements and to better align lab and class sequencing. Once these lab manuals are created, they will be made available to students for download as PDF. The effectiveness of the lab manuals will be assessed for both student satisfaction and student outcomes. Faculty will also be consulted as to their experience with the lab manuals.

I am excited about this proposal – it is a nice compliment to the initiative that the general biology faculty have already taken in adopting the OpenStax textbook for Biology 1107 and Biology 1108. I think that creation of the no cost to student lab manual is a great opportunity to demonstrate that it is possible to take a highly enrolled course with high textbook costs and make it affordable for all.

Sincerely,



Andy Meyer, Ph.D.

Interim Vice President for Academic Affairs

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