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Application Summary

Competition Details

Competition Title:	Textbook Transformation Grants, Round Twelve (Fall 2018-2019)
Category:	University System of Georgia
Award Cycle:	Round 12
Submission Deadline:	09/13/2018 at 11:59 PM

Application Information

Submitted By:	Candice Chatman
Appplication ID:	2590
Application Title:	391
Date Submitted:	09/13/2018 at 12:56 PM

Personal Details

Institution Name(s):	Atlanta Metropolitan State College
Applicant First Name:	Candice
Applicant Last Name:	Chatman
Applicant Email Address:	cflowe@atlm.edu
Applicant Phone Number:	678-623-1256
Primary Appointment Title:	Associate Professor of Biology
Submitter First Name:	Candice
Submitter Last Name:	Chatman
Submitter Email Address:	cflowe@atlm.edu
Submitter Phone Number:	678-623-1256
Submitter Title:	Associate of Biology

Application Details

Proposal Title
391

Final Semester of Project
Fall 2019

Requested Amount of Funding
10,800

Type of Grant

No-or-Low-Cost-to-Students Learning Materials

Course Title(s)
Principles of Biology I, Principles of Biology I Lab, Principles of Biology II, Principles of Biology II Lab

Course Number(s)
BIOL 1107, BLAB 1107, BIOL 1108, BLAB 1108

Team Member 1 Name
Candice Chatman

Team Member 1 Email
cflowe@atlm.edu

Team Member 2 Name
Alvin Harmon

Team Member 2 Email
aharmon@atlm.edu

Team Member 3 Name
Deon O'Bryant

Team Member 3 Email
dobryant@atlm.dcu

Team Member 4 Name
Stephen Klusza

Team Member 4 Email
sklusza@atlm.edu

Additional Team Members (Name and email address for each)
Bryan Mitchell

bmitchell@atlm.edu

Sponsor Name
Bryan Mitchell

Sponsor Title
Dean, Division Science, Mathematics, and Health Professions

Sponsor Department
Division of Science, Mathematics, and Health Professions

Original Required Commercial Materials (title, author, price)

Urry, Lisa. Campbell Biology for BIOL 1107. (2017) 11th ed.- **$166.00**

Urry, Lisa. Campbell Biology for BIOL 1108. (2017) 11th ed.- **$166.00**

Vodopich, Darrell. Biology Laboratory Manual (2017). 11th ed. for BLAB 1107 and BLAB 1108-**$188.25**

*Note: The same texts are used for both lab courses in sequence.

Average Number of Students per Course Section Affected by Project in One Academic Year
BIOL 1107- 23; BLAB 1107- 18; BIOL 1108- 22; BLAB 1108- 15

Average Number of Sections Affected by Project in One Academic Year
BIOL 1107- 6; BLAB 1107- 5; BIOL 1108- 2; BLAB 1108- 3

Total Number of Students Affected by Project in One Academic Year
BIOL 1107- 283; BLAB 1107- 178; BIOL 1108- 86; BLAB 1108- 77

Average Number of Students Affected per Summer Semester
BIOL 1107- 30; BLAB 1107- 20; BIOL 1108- 0; BLAB 1108- 0

Average Number of Students Affected per Fall Semester
BIOL 1107- 149; BLAB 1107- 105; BIOL 1108- 26; BLAB 1108- 23

Average Number of Students Affected per Spring Semester
BIOL 1107- 134; BLAB 1107- 73; BIOL 1108- 60; BLAB 1108- 54

Original Total Cost per Student
$520.25

Post-Project Cost per Student
$0.00

Post-Project Savings per Student
$520.25

Projected Total Annual Student Savings per Academic Year
$520.25

Using OpenStax Textbook?
Yes

Project Goals

- **Support the Affordable Learning Georgia initiative by adopting a peer-reviewed, zero-cost textbook for Principles of Biology I and II lecture and lab providing significant cost savings to students at Atlanta Metropolitan State College.**
- **Create an active learning environment for Principles of Biology I and II lecture and lab courses by integrating supplemental course resources that provide students with personalized study plans to guide students and foster a strong student-instructor connection under the guidance of a data-driven learning design to decrease the DFW rate.**
- **Align the course learning objectives with OpenStax text content.**
- **Develop a lab manual to pair with the OpenStax text to replace the current textbook and lab manual used for Principles of Biology I and II.**
- **Evaluate the experiences of the students and faculty qualitatively and quantitatively through this transition.**

Statement of Transformation

The aim of this proposal is to significantly reduce the cost for students taking Principles of Biology I and II at Atlanta Metropolitan State College. The rise in the cost of textbooks has become a challenge for the population of students that were serve, who are predominately non-traditional, first-generation, at-risk students. Adoption of these texts would greatly alleviate the burden of cost by making their education more affordable (acenet, 2015).

One solution to eliminating the high cost of textbooks is through the adoption of Open Educational Resources (OERs), which are free, accessible textbooks and supplemental materials located in public domain or authored with open copyright licenses (Choi, 2017). This proposal addresses all sections of Principles of Biology I and II with lab. Currently, this course sequence costs the students $520.25. Due to the high cost the texts required for these courses, students tend to rely on lectures only without getting the benefit of having the textbook and the accompanying resources. This trend has led to an increase in the DFW rate in these courses at Atlanta Metropolitan State College. Transitioning to OER materials reduces that cost to $0.00, saving Atlanta Metropolitan State College students thousands in textbook costs yearly. This transformation would provide financial relief for our students enabling them to have access to course materials that are necessary for successful completion of these courses.

Presently, students enrolled in the both the Biological Sciences Associate's and Biological Sciences Bachelor's program are required to complete the sequence of both courses with the accompanying labs. Dr. Candice Chatman's role as Biological Sciences Program Coordinator requires her to coordinate and manage all of the Biological Sciences sections of these courses. Dr. Alvin Harmon serves as the Chair of the Science Department providing leadership in development of the department's academic programs. Dr. Deon O'Bryant, Assistant Professor of Biology, and Dr. Stephen Klusza, Biology Laboratory Coordinator, teach the accompanying labs that will be affected by this project. Dr. Bryan Mitchell serves as Dean of the Division of Science, Mathematics and Health Professions. His duties include strategic planning, budgeting, and overseeing the operations of the division. This team consists of faculty and staff who could transform the Biological Sciences program at Atlanta Metropolitan State College making learning affordable for Biological Sciences majors.

References:

American Council on Education. 2015. Open Textbooks: The Current State of Play. https://www.acenet.edu/news-room/Documents/Quick-Hits-Open-Textbooks.pdf

Choi, Young Mi and Carpenter, Cathy (2017). Evaluating the Impact of Open Educational Resources: A Case Study. Libraries and the Academy, Vol. 17, No. 4 (2017), pp. 685–693.

Transformation Action Plan

There are two objectives for this transformation plan. The first objective is the adoption of an OpenStax Biology textbook for use in all sections of BIOL 1107 and BIOL 1108 at no cost to the students. This textbook has been reviewed by Biology faculty and has been found to meet the learning outcomes for these courses. Dr. Candice Chatman and Dr. Alvin Harmon will serve as content experts for the redesign of the lecture courses to ensure that the text is aligned with the current curriculum and integrated into the course structure, as well as instructors for these courses. Students will be provided with information on how to gain access to both the open text, as well as the low-cost print version.

The second objective is the development of a lab manual to accompany the OpenStax textbook for BLAB 1107 and BLAB 1108. Currently, the lab manual for these courses costs $188.25. Drs. Stephen Klusza and Deon O'Bryant will serve as subject matter experts in the creation of a new open laboratory manuals for BLAB 1107 and BLAB 1108, respectively. Dr. Stephen Klusza will also serve as instructor of both labs during implementation. Dr. Candice Chatman will supervise the transformation by managing the budget, ensuring that deadlines are met, completing reports, and facilitating the evaluation of materials. Dr. Bryan Mitchell will assist in creating and analyzing student course evaluations.

Quantitative & Qualitative Measures

Throughout the transformation project, the Dean of Science, Mathematics, and Health Professions will assess the project, employing both quantitative and qualitative measures. Quantitative measures will involve analysis of DFW rates both before and after implementation. In addition, student course evaluation data will be gathered to evaluate student perceptions of the course modifications and the new OpenStax text. Also, the student course evaluation will contain a section for students to respond to open-ended questions describing the perceived quality of the course materials and their experience with the transformation.

Timeline

- **September 2018- Submit transformation proposal**
- **September 2018- Receive award notification**
- **Spring 2019- Content evaluation of the OpenStax textbook and lab manual; make necessary modifications to modules in BrightSpace**
- **Summer 2019- Completion of materials**
- **Fall 2019- Implementation of materials in all course and lab sections of BIOL 1107/BIOL 1108 and BLAB 1107/BLAB 1108.**
- **Fall 2019- Office of Institutional Effectiveness works with BIOL 1107/BIOL 1108 and BLAB 1107/BLAB 1108 faculty to collect qualitative and quantitative data on and student experiences and success rate.**
- **December 2019- Submit final report of findings to Affordable Learning Georgia.**

Budget

Faculty and Staff Department Stipend (Spring/Summer 2019)

Dr. Candice Chatman **$2,000** for the review, selection and adoption of no-cost open-access materials, course alignment and content redesign of BIOL 1107.

Dr. Alvin Harmon **$2,000** for the review, selection, and adoption of no-cost materials, course alignment and content redesign of BIOL 1108.

Dr. Stephen Klusza **$2,000** for the identification and selection of no-cost materials and instructor of laboratories during implementation for BLAB 1107.

Dr. Deon O'Bryant **$2000** for the identification and selection of no-cost materials and instructor of laboratories during implementation for BLAB 1108.

Dr. Bryan Mitchell **$2000** for collecting and analyzing quantitative and qualitative data of student performance and student course evaluations to measure the effectiveness of the project.

Grant kickoff meeting and other travel as necessary- **$800**

Total Project Expenses: $10, 800.00

Sustainability Plan

The redesigned Principles of Biology I and II lecture and lab courses will be offered each academic year and summer session. Course materials and updates for these courses will be made available on BrightSpace, which is easily accessible to all students enrolled in BIOL 1107/BIOL 1108 and BLAB 1107/BLAB 1108. In addition, a copy of the syllabus and teaching materials will be uploaded into a course shell in BrightSpace that is dedicated to the Division of Science, Mathematics and Health Professions, as well as the Biology Department Office to ensure that all instructors for these courses have access to this information. Future plans involve the incorporation of ancillary materials (i.e. test bank, study guides, case studies) into these courses to promote an active learning environment.

Data derived from this study will not only be used for improvement of the transformation courses, but it will also be used for the transformation of other courses within the division. Implementation of the project in Principles of Biology I and II lecture and lab will be shared at Atlanta Metropolitan State College during the Spring Faculty Institute to encourage other divisions to support the Affordable Learning Georgia Initiative. Team members involved in this project will provide professional development to AMSC faculty on the steps to identifying an open texts suitable for their courses and integrating them into their curricula. If funding is available, data gathered from this project will be presented at local, state, or national meetings/conferences and possibly submitted for publication in a peer-reviewed journal.

Acknowledgment

Grant Acceptance

[Acknowledged] I understand and acknowledge that acceptance of Affordable Learning Georgia grant funding constitutes a commitment to comply with the required activities listed in the RFP and that my submitted proposal will serve as the statement of work that must be completed by my project team. I further understand and acknowledge that failure to complete the deliverables in the statement of work may result in termination of the agreement and funding.

OFFICE OF THE DEAN
DIVISION OF SCIENCE, MATHEMATICS & HEALTH PROFESSIONS
1630 METROPOLITAN PARKWAY, SW
ATLANTA, GEORGIA 30310

September 10, 2018

To Whom It May Concern,

This letter is sent to confirm my support of Dr. Candice Chatman's Affordable Learning Georgia—Textbook Transformation Grant, Round Twelve (Fall 2018-2019) grant application. I believe that the students at Atlanta Metropolitan State College will greatly benefit from the zero-cost textbook for the Principles of Biology I and II Lecture and Laboratory courses. You have developed a comprehensive proposal that is expected to assist well over 600 STEM students per year, which will prepare them for further educational endeavors.

I appreciate your dedication and efforts to identify opportunities that will continue to enrich and adequately train our underserved, underrepresented and disadvantaged minority STEM students. As always, I pledge my full support of your Textbook Transformation Grant proposal.

Sincerely,

Bryan O. Mitchell

Dr. Bryan O. Mitchell
Dean and Associate Professor of Biology

Phone: (404) 756-4025

Facsimile: (404) 756-4767

Textbook Transformation Grants, Round Twelve (Fall 2018-2019)

Proposal Form and Narrative

Notes

- The proposal form and narrative .docx file is for offline drafting and review. Submitters must use the InfoReady Review online form for proposal submission.
- The only way to submit the official proposal is through the online form in Georgia Tech's InfoReady Review. The link to the online application is on the Round 12 RFP Page.
- The italic text we provide is meant for clarifications and can be deleted.

Applicant, Team, and Sponsor 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, leave the submitter fields blank.

Institution(s)	Atlanta Metropolitan State College
Applicant Name	Candice Chatman
Applicant Email	cflowe@atlm.edu
Applicant Phone #	678-623-1256
Applicant Position/Title	Associate Professor of Biology
Submitter Name	Candice Chatman
Submitter Email	cflowe@atlm.edu
Submitter Phone #	678-623-1256
Submitter Position	Associate Professor of Biology

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.

	Name	Email Address
Team Member 1	Candice Chatman	cflowe@atlm.edu
Team Member 2	Alvin Harmon	aharmon@atlm.edu
Team Member 3	Deon O'Bryant	dobryant@atlm.edu
Team Member 4	Stephen Klusza	sklusza@atlm.edu
Team Member 5	Bryan Mitchell	bmitchell@atlm.edu
Team Member 6		
Team Member 7		
Team Member 8		

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

Please provide the sponsor's name, title, department, and institution. The sponsor is the provider of your Letter of Support.

Dr. Bryan Mitchell, Dean of the Division of Science, Mathematics, and Health Professions
Atlanta Metropolitan State College

Project Information and Impact Data

Title of Grant Project	Increasing Retention, Progression, and Graduation Rates at AMSC: Eliminating the High Cost of STEM Textbooks in Principles of Biology I and II Lecture and Lab
Type of Grant	No-or-Low-Cost-to-Students Learning Materials
Requested Amount of Funding	$10,800
Course Names and Course Numbers	Principles of Biology I (BIOL 1107) Principles of Biology I Lab (BLAB 1107) Principles of Biology II (BIOL 1108) Principles of Biology II Lab (BLAB 1108)
Final Semester of Project	*Fall 2019*
Average Number of Students Per Course Section Affected by Project	BIOL 1107- 23 BLAB 1107- 18 BIOL 1108- 22 BLAB 1108- 15
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Title/Author of Original Required Materials	Urry, Lisa. Campbell Biology for BIOL 1107. (2017) 11th ed. Urry, Lisa. Campbell Biology for BIOL 1108. (2017) 11th ed. Vodopich, Darrell. Biology Laboratory Manual (2017). 11th ed. for BLAB 1107 and BLAB 1108 *Note: The same texts are used for both lab courses in sequence.
Original Total Cost Per Student	$166.00 x 2= $332.00 (BIOL 1107 AND BIOL 1108 Lecture) $188.25 (blab 1107/1108 Lab Manual)
Post-Project Cost Per Student	$0.00
Post-Project Savings Per Student	$520.25
Projected Total Annual Student Savings Per Academic Year	$520.25
Using OpenStax Textbook?	Yes

Narrative Section

1. Project Goals

The primary goal of the Principles of Biology I and II textbook transformation project are to:

- **Support the Affordable Learning Georgia initiative by adopting a peer-reviewed, zero-cost textbook for Principles of Biology I and II lecture and lab providing significant cost savings to students at Atlanta Metropolitan State College.**
- **Create an active learning environment for Principles of Biology I and II lecture and lab courses by integrating supplemental course resources that provide students with personalized study plans to guide students and foster a strong student-instructor connection under the guidance of a data-driven learning design to decrease the DFW rate.**
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Note: Letter of Support- Attached