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# **Application Summary**

### **Competition Details**

Competition Title:	Textbook Transformation Grants, Round Thirteen (Spring 2019-Spring 2020)	
Category:	University System of Georgia	
Award Cycle:	Round 13	
Submission Deadline:	01/14/2019 at 11:59 PM	

### **Application Information**

Submitted By:	Quintero Moore
Appplication ID:	2885
Application Title:	427
Date Submitted:	01/15/2019 at 7:36 AM

#### Personal Details

Institution Name(s):	Atlanta Metropolitan State College
Applicant First Name:	Quintero
Applicant Last Name:	Moore
Applicant Email Address:	qmoore@atlm.edu
Applicant Phone Number:	7014039050
Primary Appointment Title:	Instructor of Biology
Submitter First Name:	Quintero
Submitter Last Name:	Moore
Submitter Email Address:	qmoore@atlm.edu
Submitter Phone Number:	7014039050
Submitter Title:	Instructor of Biology

### **Application Details**

Proposal Title 427

Final Semester of Project Spring 2020

Requested Amount of Funding 10,800.00

#### Type of Grant

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

Course Title(s) Human Anatomy and Physiology I and II Lab

Course Number(s) BLAB 2241 and BLAB 2242

Team Member 1 Name Quintero Moore

Team Member 1 Email qmoore@atlm.edu

Team Member 2 Name Shannon Glanton

# Team Member 2 Email sglanton@atlm.edu

Team Member 3 Name Alvin Harmon

Team Member 3 Email aharmon@atlm.edu

Team Member 4 Name Bryan Mitchell

Team Member 4 Email bmitchell@atlm.edu

#### Additional Team Members (Name and email address for each)

#### Sponsor Name Bryan Mitchell

Sponsor Title Dean and Associate Professor of Biology in the Division of Science, Mathematics, and Health Professions

Sponsor Department Atlanta Metropolitan State College

### **Original Required Commercial Materials (title, author, price)**

Woods, Michael. (2016). Laboratory Manual for Anatomy & Physiology featuring Martini Art, Main Version. 6th ed. Pearson. For BLAB 2241 and 2242.

Total Cost Per Student = \$141.75

Average Number of Students per Course Section Affected by Project in One Academic Year BLAB 2241- 20 ; BLAB 2242 - 15

Moore, Quintero - #2885

Average Number of Sections Affected by Project in One Academic Year BLAB 2241 - 3; BLAB 2242 - 2

Total Number of Students Affected by Project in One Academic Year BLAB 2241 - 156 ; BLAB 2242 - 105

Average Number of Students Affected per Summer Semester BLAB 2241 – 22 ; BLAB 2242 - 3

Average Number of Students Affected per Fall Semester BLAB 2241 – 19 ; BLAB 2242 - 20

Average Number of Students Affected per Spring Semester BLAB 2241 - 18 ; BLAB 2242 - 16

Original Total Cost per Student \$141.75

**Post-Project Cost per Student** \$0.00

**Post-Project Savings per Student** \$141.75

Projected Total Annual Student Savings per Academic Year \$36,996.75

Using OpenStax Textbook? Yes

#### **Project Goals**

- 1. Support the Affordable Learning Georgia initiative by adopting a peer-reviewed, zero-cost laboratory manual for Human Anatomy and Physiology Laboratory I and II providing a significant cost saving effect on the students at Atlanta Metropolitan State College.
- 2. Create an active learning environment for Human Anatomy and Physiology Laboratory I and II 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 drop/fail/withdraw (DFW) rate.
- 3. Align the course learning objectives with OpenStax text content.
- 4. Develop a laboratory manual to pair with the OpenStax text to replace the current laboratory manual used in Human Anatomy and Physiology Laboratory I and II (BLAB 2241 and BLAB 2242).
- Evaluate the experiences of the students and faculty qualitatively and quantitatively through this transition, by surveying students enrolled in the redesigned courses and faculty who teach them. Assess adopted OERs with regard to 1) convenience and ease-of-use, 2) effectiveness and quality, and 3) achievement of student learning outcomes.

**Statement of Transformation** 

The aim of this proposal is to significantly reduce the cost for students taking Human Anatomy and Physiology Laboratory I and II at Atlanta Metropolitan State College. The rise in the cost of textbooks and laboratory manuals has become a challenge for the population of students that AMSC serves, 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 Human Anatomy and Physiology Laboratory I and II. Currently, this sequence of courses cost the students \$141.75. Due to the high cost of the laboratory manual that is required for each student enrolled in the courses, students tend to rely on their peer's laboratory manual by photocopying or capturing photos of the manual with their cellular device. Often students would attempt to matriculate though the course without a laboratory manual. 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 of the laboratory manual from \$141.75 to \$0.00 per student, saving Atlanta Metropolitan State College students \$36,996.75 in laboratory manual costs yearly. This transformation would provide financial relief for our students enabling them to have access to the course materials that are necessary for the successful completion of these courses.

Presently, students enrolled in the Health Sciences Associate's program or are pursuing advance degrees leading to pharmacy, medicine, occupational and physical therapy requires the complete the sequence of both labs. Mr. Moore is an Instructor of Biology and has been tasked with the role to redesign Human Anatomy and Physiology Laboratory I and II series, which requires him to coordinate and manage all sections of these courses with the Science Department Chair and Dean of the Division of Science, Mathematics and Health Professions. He will serve as the content expert as well as Dr. Glanton Instructor of Human Anatomy and Physiology and Dr. Harmon. Dr. Alvin Harmon serves as Professor of Biology and Chair of the Science Department providing leadership in development of the department's academic programs. Mr. Moore, Dr. Glanton, and Dr. Harmon 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 Health Sciences program at Atlanta Metropolitan State College making learning affordable, while maintaining a high academic prowess for all Health 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 Human Anatomy and Physiology textbook at no cost to the students. This textbook has been reviewed by Biology faculty who teach Human Anatomy and Physiology and has been found to meet the learning outcomes for these courses. Mr. Moore, Dr. Glanton, and Dr. Harmon will serve as content experts for selecting content from the OpenStax textbook to be intergraded in the redesign of the laboratory manual. Students will be provided with information on how to gain access to both the open text, as well as the lowcost print version.

The second objective is the development of a laboratory manual for all sections of BLAB 2241 and BLAB 2242. Content and diagrams from the adopted OpenStax Human Anatomy and Physiology textbook will be utilized for the development of a new laboratory manual. Each lab will have a clinical correlation and application to aid the students in conceptual learning for BLAB 2241 and BLAB 2242. Currently, the laboratory manual for the designated courses costs \$141.75 per student. Mr. Moore, Dr. Glanton, and Dr. Harmon will serve as content experts for the redesign of the laboratory manual for BLAB 2241 and BLAB 2241 and BLAB 2242 to ensure that the text is aligned with the current curriculum and integrated into the course structure, as well as instructors for these courses. Mr. Moore 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. Partner with the Vice President of Institutional Effectiveness to create a measurable survey for students and faculty, along with analyzing and interrupting feedback for BLAB 2241 and 2242.

Measure (Analyzing): Students will examine primary, secondary, and tertiary questions related to the laboratory procedure by seeing patterns, organization of anatomical structures, recognition of hidden meanings, and the identification of components. This project will relate to the interpretation and application of anatomical and physiological structures and its influence on the morphological structure of each system in the human body. Student will learn how to classify, compare and contrast, dissect, and distinguish structures found in each system of the human body.

Standard: At least a 70% of all student will receive an average grade of "70" or better on the projects. Projects are defined as laboratory practical's and/or final examination. Each project content will be reviewed with students to reinforce concepts. Homework assignments and quizzes will be required to specifically address the course objective.

Quantitative measures will involve analysis of DFW rates both before and after implementation. In addition, student and faculty 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.

Interviews will be conducted with the instructors teaching the redesigned material, to gather the project development and execution.

Timeline

- January 2019- Submit transformation proposal
- January 2019- Peer Reviews
- January 2019- Receive award notification
- February 2019- Kickoff Meeting, Middle Georgia State University
- February and March 2019- Content evaluation of OpenStax, GALILEO, and USG libraries for textbook and lab manual; make necessary modifications to laboratory classroom and modules in Daylight powered by Brightspace. Review current and previous laboratory manuals content to identify strengths, weakness, opportunities, and copywritten threats for creating a new manual.
- March 2019- Divided and designate each laboratory procedure to team members based on specialty. Create laboratory manual templates.
- March and April 2019- Start with the creation of each laboratory procedure for BLAB 2241. Create instructor, student, and laboratory supervisor versions.
- May 2019- Review and discuss as a team, each member first redesigned laboratory procedure to identify any weakness, opportunities, and threats. Implement recommended correction from team discussion.
- Summer (June July) 2019- Complete BLAB 2241 laboratory manual. Review and discuss BLAB 2241 completed laboratory manual as a team.
- August 2019- Implementation of the redesigned laboratory manual for BLAB 2241. Start with the redesigned of BLAB 2242 laboratory manual. Create instructor, student, and laboratory supervisor versions for BLAB 2242.
- September 2019- Continue with the redesign of BLAB 2242 laboratory manual. Work with the Office of Institutional Effectiveness to create a survey for all students and instructors enrolled in BLAB 2241.
  Each survey will evaluate but not limited to the transition process, implementation, student learning based on Blooms Taxonomy, student application, and any course content recommendations.
- October 2019- Conduct surveys for all students and instructors enrolled in BLAB 2241 courses to complete. Complete BLAB 2242 laboratory manual.
- November 2019- Review and discuss as a team each survey feedback and BLAB 2242 completed laboratory manual to identify any weakness, opportunities, and threats. Implement recommended correction agreed on from team discussion.
- December 2019- Continue with implement recommended correction agreed on from team discussion.
- January 2020- Implementation of the modified BLAB 2241 laboratory manual and redesigned laboratory manual for BLAB 2242.
- February 2020- Work with the Office of Institutional Effectiveness to create a survey for BLAB 2242 and modify survey utilized to evaluate BLAB 2241. Each survey will evaluate but not limited to the transition process, implementation, student learning based on Blooms Taxonomy, student application, and any course content recommendations.
- March 2019- Conduct survey for all students and instructors enrolled in BLAB 2241/2242 courses to complete.
- April 2020- Review and discuss as a team each survey feedback from BLAB 2241/2242, along with fall BLAB 2241 laboratory practical and final examination scores.
- May 2020- Submit final report of findings to Affordable Learning Georgia.

Budget

Mr. Quintero Moore \$3,000.00 for the review, identification, selection and adoption of no-cost open-access materials, course alignment and content redesign of BLAB 2241 and 2242.

Dr. Shannon Glanton \$3,000.00 for the review, identification, selection and adoption of no-cost open-access materials, course alignment and content redesign of BLAB 2241 and 2242.

Dr. Alvin Harmon \$2,000.00 for the identification and selection of no-cost materials and the implementation of each instructor of laboratories during implementation for BLAB 2241 and 2242.

Dr. Bryan Mitchell \$2,000.00 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- \$800.00

Total Project Expenses: \$10, 800.00

#### **Sustainability Plan**

The redesigned of Human Anatomy and Physiology Laboratory I and II 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 BLAB 2241/BLAB 2242. 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. Team members involved in this project will provide professional development to AMSC faculty on the steps for identifying open educational resources suitable for their courses and integrating them into their curricula. If funding is available, data gathered from this project could be presented at local, state, or national meetings/conferences and possibly submit 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

January 14, 2019

To Whom It May Concern,

This letter is sent to confirm my support of Prof. Quintero Moore's Affordable Learning Georgia— Textbook Transformation Grant, Round Thirthteen (Fall 2019-2020) grant application. I believe that the students at Atlanta Metropolitan State College will greatly benefit from the zero-cost textbook for the Human Anatomy and Physiology I Lab (BLAB 2241) and the Human Anatomy and Physiology II Lab (BLAB 2242)courses. You have developed a comprehensive proposal that is expected to assist well over 260 Health Sciences 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 students. As always, I pledge my full support of your Textbook Transformation Grant proposal.

Sincere

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

Phone: (404) 756-4025

A Unit of the University System of Georgia An Equal Opportunity/Affirmative Action Institution

Facsimile: (404) 756-4767



# Textbook Transformation Grants, Round Thirteen (Spring 2019 – Spring 2020)

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 <u>Round 13 RFP Page</u>.
- 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	Quintero Moore
Applicant Email	qmoore@atlm.edu
Applicant Phone #	701-403-9050
Applicant Position/Title	Instructor of Biology
Submitter Name	Quintero Moore
Submitter Email	qmoore@atlm.edu
Submitter Phone #	701-403-9050
Submitter Position	Instructor 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	Quintero Moore	<u>qmoore@atlm.edu</u>
Team Member 2	Shannon Glanton	<u>sglanton@atlm.edu</u>
Team Member 3	Alvin Harmon	aharmon@atlm.edu
Team Member 4	Bryan Mitchell	bmitchell@atlm.edu
Team Member 5		
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 and Associate Professor of Biology in the Division of Science, Mathematics, and Health Professions Atlanta Metropolitan State College

# Project Information and Impact Data

Title of Crant Droject	Increasing Detention Dregression and Creduction
Title of Grant Project	Increasing Retention, Progression, and Graduation
	Rates at AMSC: Eliminating the High Cost of STEM
	laboratory Manual in Human Anatomy and
	Physiology I and II Lab
Type of Grant	No-or-Low-Cost-to-Students Learning Materials
Requested Amount of Funding	\$10,800
Course Names and Course Numbers	Human Anatomy and Physiology I Lab (BLAB 2241)
	Human Anatomy and Physiology II Lab (BLAB 2242)
Final Semester of Project	Spring 2020
Average Number of Students Per	BLAB 2241 - 20
<b>Course Section Affected by Project</b>	BLAB 2242 - 15
Average Number of Sections Affected	BLAB 2241 - 3
by Project in One Academic Year	BLAB 2242 - 2
Total Number of Students Affected	BLAB 2241 - 156
by Project in One Academic Year	BLAB 2242 - 105
Average Number of Students	BLAB 2241 – 22
Affected per Summer Semester	BLAB 2242 - 3
Average Number of Students	BLAB 2241 – 19
Affected per Fall Semester	BLAB 2242 - 20
Average Number of Students	BLAB 2241 - 18
Affected per Spring Semester	BLAB 2242 - 16
Title/Author of Original Required	Woods, Michael. (2016). Laboratory Manual for
Materials	Anatomy & Physiology featuring Martini Art, Main
	Version. 6 <sup>th</sup> ed. Pearson. For BLAB 2241 and 2242
Original Total Cost Per Student	\$141. <sup>75</sup>
Post-Project Cost Per Student	\$0. <sup>00</sup>
Post-Project Savings Per Student	\$141. <sup>75</sup>
Projected Total Annual Student	\$36,996. <sup>75</sup>
Savings Per Academic Year	

Yes

# Narrative Section

# 1. Project Goals

- 1. Support the Affordable Learning Georgia initiative by adopting a peer-reviewed, zero-cost laboratory manual for Human Anatomy and Physiology Laboratory I and II providing a significant cost saving effect on the students at Atlanta Metropolitan State College.
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# 2. Statement of Transformation

The aim of this proposal is to significantly reduce the cost for students taking Human Anatomy and Physiology Laboratory I and II at Atlanta Metropolitan State College. The rise in the cost of textbooks and laboratory manuals has become a challenge for the population of students that AMSC serves, 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).

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# 6. Budget

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Grant kickoff meeting and other travel as necessary- \$800.00

Total Project Expenses: \$10, 800.00

# 7. Sustainability Plan

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# Note: Letter of Support



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

January 14, 2019

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

Sincere

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

Phone: (404) 756-4025

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Facsimile: (404) 756-4767