

Summer 2017

Introduction to Biological Principles (Georgia Tech)

Chrissy Spencer

Georgia Institute of Technology, chrissy.spencer@biology.gatech.edu

Jung Choi

Georgia Institute of Technology, jung.choi@biology.gatech.edu

Shana Kerr

Georgia Institute of Technology, shana.kerr@biology.gatech.edu

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Application Details

Manage Application: Textbook Transformation Grants Round Seven

Award Cycle: Round 7

Internal Submission Deadline: Sunday, September 4, 2016

Application Title: 270

Application ID: #001172

Submitter First Name: Da'Mon

Submitter Last Name: Andrews

Submitter Title: Assistant Professor of Mathematics

Submitter Email Address: dandrews@ega.edu

Submitter Phone Number: 912-623-2444

Submitter Campus Role: Proposal Investigator (Primary or additional)

Applicant First Name: Damon

Applicant Last Name: Andrews

Applicant Email Address: dandrews@ega.edu

Applicant Phone Number: 912-623-2444

Primary Appointment Title: Assistant Professor

Institution Name(s): East Georgia State College

Proposal Category: No-or-Low-Cost-to-Students Learning Materials

Submission Date: Tuesday, September 6, 2016

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

Mr. Da'Mon Andrews, Ed.S., Assistant Professor of Mathematics; dandrews@ega.edu

Mr. Antre' Drummer, M.S., Assistant Professor of Mathematics; amdrummer@ega.edu

Sponsor, (Name, Title, Department, Institution):

Dr. Jimmy Wedincamp, PhD, Dean of School of Mathematics and Science, Professor of Mathematics, East Georgia State College; wedincamp@ega.edu

Final Semester of Instruction: Summer 2017

Proposal Title: 270

Course Names, Course Numbers and Semesters Offered:

Foundations for College Algebra; MATH 0989; offered every Fall, Spring, Summer

Average Number of Students per Course Section: 35

Number of Course Sections Affected by Implementation in Academic Year: 23

Total Number of Students Affected by Implementation in Academic Year: 805

List the original course materials for students (including title, whether optional or required, & cost for each item): Prices from EGSC Online Bookstore: Introductory Algebra with MyMathLab, 7th edition, Robert Blitzer, Pearson Prentice Hall [hardcover optional] @ \$240.00 Introductory Algebra with MyMathLab, 7th edition, Robert Blitzer, Pearson Prentice Hall [loose-leaf optional] @ \$174.00 Standalone MyMathLab Access Code. [required] @ \$121.25

Requested Amount of Funding: 10,800

Original per Student Cost: \$121.25 to \$240.00

Post-Proposal Projected Student Cost: \$0

Projected Per Student Savings: \$121.25 to \$240.00

Projected Total Annual Student Savings: \$97,606.25 to \$193,200

Creation and Hosting Platforms (Use "n/a" if none):

D2L

LibGuides (with Creative Commons Open License)

Project Goals:

* Student Savings

Replace the current textbook with Beginning and Intermediate Algebra, 2nd Edition by Tyler Wallace a free open-source textbook.

Replace the MyMathLab online homework platform with MyOpenMath, a free installation of an Internet Mathematics Assessment System (IMATHAS).

Provide students with free access to course materials on day one of each semester.

*** Faculty Flexibility and Course Uniformity**

Create tailor-made course materials including textbook, syllabus, slideshows, video library, and online assessments that correspond to course objectives defined by the mathematics learning support curriculum committee.

Create a master course in D2L with all course materials that can be shared with all EGSC Math Faculty.

Share all course materials with colleagues at other institutions via LibGuides.

Statement of Transformation:

*** Describe the transformation**

The Pearson textbook will be replaced with a no-cost-to-student textbook that provides coverage of the curriculum as defined by the mathematics learning support curriculum committee. This transition would eliminate a major barrier to academic success for many students. Particularly, as 32 percent of students who attended East Georgia State College in 2013-2014 received Pell Grant recipients (NCES, 2016). Additionally, faculty will have the opportunity to create a custom textbook package that specifically designed for EGSC's developmental mathematics students as opposed to an "off the rack" package developed by textbook publishers.

*** Identify stakeholders affected by the transformation**

Students are the major stakeholders. Additionally, institutional faculty and staff are stakeholders as well.

*** Describe the impact of this transformation on stakeholders and course success.**

MATH 0989 students' textbook costs will be reduced to \$0. Also, the number of students who fall behind in the course due to not purchasing the textbook or software will be eliminated as students will access to all of the course materials on the first day of class.

Faculty teaching MATH 0989 will gain more control over instructional content and have the ability to create more uniformity across multiple course sections. Additionally, instructional materials created for the course will be made available to colleagues internal and external to the institution via D2L and LibGuides, respectively. Additionally, academic support services will have greater access to course materials and provide more effective academic support for students enrolled in MATH 0989.

*** Describe the transformative impact on the course, program, department, institutions, access institution, and/or multiple courses.**

East Georgia State College offers 23 sections with an average of 35 students of Foundations of College Algebra each academic year. This equates to a cost saving to students that ranges from \$80,460 to \$188,909. This particular textbook transformation could serve as a catalyst within the mathematics department to engage and encourage other faculty members to implement no-cost-to-student textbooks for other mathematics course offerings which will impact every student enrolled at the institution because all students are required to complete at least one mathematics course as a degree requirement.

Transformation Action Plan:

Project Completion has three phases:

Phase One, Fall 2016: Both Mr. Andrews and Mr. Drummer will develop (i.e. syllabus, course schedule, assessments, study guides, slideshows, and video library) a pilot course using the Wallace textbook and myOpenMath website. Mr. Drummer will obtain IRB approval to conduct research related to this project.

Phase Two, Spring 2017: Mr. Andrews will pilot sections of the course using the new textbook/online homework platform. Mr. Drummer will administer a survey regarding the quality/access/ease of use (or lack thereof) of the course materials. Mr. Andrews will calculate course pass rates for the semester.

Phase Three: Summer 2017: Mr. Andrews and Mr. Drummer will analyze course pass rate, student satisfaction survey results, and course evaluations for the Spring 2017 pilot course. Course materials will be modified based on these results and course materials will be made available to colleagues at EGSC via D2L and LibGuides for colleagues external to EGSC for implementation in the Fall 2017 semester.

Quantitative & Qualitative Measures: Quantitative Measures a) Success Rates This project will evaluate the Spring 2017 semester Success rates for Foundations of College Algebra versus the Spring, Summer, and Fall 2016 semesters Success rates for Foundations of College Algebra. A success in Foundations of College Algebra is defined as a student earning a grade of A, B, or C. Students can additionally earn grades of IP, F, W, or WF which all constitute an unsuccessful attempt. b) Pretest-Posttest Scores EGSC administers a pretest and posttest to all students for all courses. Thus, an ANOVA analysis will be conducted for both the pretest and posttest scores for students who took MATH 0989 in Spring 2016, Summer 2016, Fall 2016, and Spring 2017. Qualitative Measures Qualitative measures from Student Course Evaluations will be compared for MATH 0989 before and after implementation. Additionally, at the start and end of the project a survey will be conducted to determine students' opinions of course material including, but not limited to, organization, availability, difficulty, clarity, and cost of course material. Before and after implementation mathematics faculty teaching MATH 0989 will be surveyed to determine faculty members' in regards to, but not limited to, willingness to use open-source resources for current course, willingness to extend the use of open-source resources to other course, quality of current and textbook package, and suitability of current textbook to meet established departmental course objectives.

Timeline:

Fall Semester 2016 (August – December) – IRB Approval, Pilot Course Development, Satisfaction Survey, and Course Evaluation

October/November – Obtain IRB approval to conduct research related to this project. Develop pilot course using the Wallace textbook and myOpenMath website.

December – Have students complete a survey about the quality/access/ease of use (or lack thereof) of the course materials and course evaluations. Have faculty complete textbook survey. Determine baseline MATH 0989 course pass rates for the fall semester and gather pre-posttest data and course evaluation data.

Spring Semester 2017 (January – May) – Implementation of Textbook and Online Learning Platform

January/February/March/April/May – Pilot sections of the course using the new textbook/online homework platform. Have students complete a survey about the quality/access/ease of use (or lack thereof) of the course materials and course evaluations. Have faculty complete textbook survey. Determine pass rate for the spring semester and gather pre-posttest data.

Summer Semester 2017 (June – August) – Analysis of Fall and Spring Semester Course Pass Rates and Faculty, Student Satisfaction Survey, and Course Evaluations

June – Analyze course pass rates, pre-posttest data, course evaluations, and faculty and student satisfaction surveys.

July – Submit final report to the mathematics learning support committee and ALG committee. Share course materials with colleagues at EGSC via D2L and LibGuides for colleagues external to EGSC.

August – Based on approval of the mathematics learning support committee and dean of the School of Mathematics and Sciences, implement the new textbook/online homework platform for all remedial mathematics courses campus-wide.

Budget:

Personnel - \$10,000

Travel - \$800

Equipment - \$0.00

Supplies - \$0.00

Consultants/Contracts - \$0.00

Other Costs - \$0.00

Indirect Costs - \$0.00

Total - \$10,800

Mr. Andrews and Mr. Drummer will be compensated \$5000 each for the extra time required to complete the project.

Project staff is required to attend the Affordable Learning Georgia Kickoff Event held on the campus on Middle Georgia State University in Macon, GA. Travel cost associated with this event is \$800.

There is no additional costs associated with equipment, supplies (all materials are will be in digital format), consultants/contracts (free training and resources are provided by the grantor), office space, or indirect costs.

Sustainability Plan:

Once funding for the project has ended no additional cost will be required as the course materials can be readily shared with colleagues because of the following:

Internal to EGSC

- 1) D2L courses can be copied from the master D2L course and modified as needed.
- 2) The selected textbook is open-source, thus any changes to a newer edition could be easily modified or excluded to meet the curriculum goals of the institution.

External to EGSC

- 1) External colleagues can access the course materials via LibGuides.
 - 2) The selected textbook is open-source, thus any changes to a newer edition could be easily modified or excluded to meet the curriculum goals of any institution.
-



East Georgia State College

THE UNIVERSITY SYSTEM OF GEORGIA

Office of the Dean, School of Mathematics and Natural Sciences
131 College Circle
Swainsboro, Georgia 30401-2699
Phone (478) 289-2166 • Fax (478) 289-2080
Email • wedincamp@ega.edu

July 14, 2016

Affordable Learning Georgia Textbook Transformation Grants

GALILEO

University System of Georgia

270 Washington Street, S.W.

Atlanta, GA 30334

Dear ALG members,

It is my pleasure to write this letter of support for the ALG Open Mathematics in Action Project submitted by Da'mon Andrews. The ALG project will provide an ideal solution to the rising costs of textbooks and will result in significant savings for students. The faculty teaching the courses targeted in this proposal have significant experience and a willingness to participate. The goal of providing less expensive learning materials for our students is noble and has my full support. I believe this project will be sustainable long term and hopefully the knowledge acquired here will be applied to other courses at EGSC.

The EGSC Business Affairs Office will be responsible for the receipt and distribution of award funds. If the project is successful, EGSC School of Mathematics and Natural Sciences will act to encourage the project in other academic areas.

Thank you for this opportunity to assist our students in obtaining an affordable learning opportunity through participation in the ALG project.

Sincerely,

Jimmy Wedincamp

Dean and Professor

School of Mathematics and Natural Sciences

East Georgia State College

LET'S GET ASSOCIATED.

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION



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**Affordable Learning Georgia Textbook Transformation Grants
Rounds Six, Seven, and Eight
For Implementations beginning Fall Semester 2016
Running Through Fall Semester 2017**

Proposal Form and Narrative

Submitter Name	Da'Mon Andrews
Submitter Title	Assistant Professor of Mathematics
Submitter Email	dandrews@ega.edu
Submitter Phone Number	912-623-2444
Submitter Campus Role	Da'Mon Andrews
Applicant Name	Da'Mon Andrews
Applicant Email	dandrews@ega.edu
Applicant Phone Number	912-623-2444
Primary Appointment Title	Assistant Professor
Institution Name(s)	East Georgia State College
Team Members	<p>Mr. Da'Mon Andrews, Ed.S., Assistant Professor of Mathematics; dandrews@ega.edu</p> <p>Mr. Antre' Drummer, M.S., Assistant Professor of Mathematics; amdrummer@ega.edu</p>
Sponsor, Title, Department, Institution	<p>Dr. Jimmy Wedincamp, PhD, Dean of School of Mathematics and Science, Professor of Mathematics, East Georgia State College;</p> <p>wedincamp@ega.edu</p>

Proposal Title	Transforming MATH 0989 Foundations for College Algebra				
Course Names, Course Numbers and Semesters Offered	Foundations for College Algebra; MATH 0989; offered every Fall, Spring, Summer				
Final Semester of Instruction	Summer 2017				
Average Number of Students Per Course Section	35	Number of Course Sections Affected by Implementation in Academic Year	23	Total Number of Students Affected by Implementation in Academic Year	805
Award Category (pick one)	<input checked="" type="checkbox"/> No-or-Low-Cost-to-Students Learning Materials <input type="checkbox"/> OpenStax Textbooks <input type="checkbox"/> Interactive Course-Authoring Tools and Software <input type="checkbox"/> Specific Top 100 Undergraduate Courses				
List the original course materials for students (including title, whether optional or required, & cost for each item)	Prices from EGSC Online Bookstore : <u>Introductory Algebra with MyMathLab</u> , 7 th edition, Robert Blitzer, Pearson Prentice Hall [hardcover optional] @ \$ 240.00 <u>Introductory Algebra with MyMathLab</u> , 7 th edition, Robert Blitzer, Pearson Prentice Hall [loose-leaf optional] @ \$174.00 StandaloneMyMathLab Access Code. [required] @ \$121.25				
Requested Amount of Funding	\$10,800				

Original Per Student Cost	\$121.25 to \$240 depending on the option selected by student
Post-Proposal Projected Per Student Cost	\$0
Projected Per Student Savings	\$121.25 to \$240
Projected Total Annual Student Savings	$\$121.25 \times 805 = \97606.25 ; $\$240 \times 805 = \$193,200$ \$97606.25 to \$193,200
Creation and Hosting Platforms Used	D2L <i>LibGuides (with Creative Commons Open License)</i>

NARRATIVE

1.1 PROJECT GOALS

- Student Savings
 - Replace the current textbook with *Beginning and Intermediate Algebra, 2nd Edition* by Tyler Wallace a free open-source textbook.
 - Replace the MyMathLab online homework platform with MyOpenMath, a free installation of an Internet Mathematics Assessment System (IMATHAS).
 - Provide students with free access to course materials on day one of each semester.
- Faculty Flexibility and Course Uniformity
 - Create tailor-made course materials including textbook, syllabus, slideshows, video library, and online assessments that correspond to course objectives defined by the mathematics learning support curriculum committee.
 - Create a master course in D2L with all course materials that can be shared with all EGSC Math Faculty.

- Share all course materials with colleagues at other institutions via LibGuides.

1.2 STATEMENT OF TRANSFORMATION

- Describe the transformation

The Pearson textbook will be replaced with a no-cost-to-student textbook that provides coverage of the curriculum as defined by the mathematics learning support curriculum committee. This transition would eliminate a major barrier to academic success for many students. Particularly, as 32 percent of students who attended East Georgia State College in 2013-2014 received Pell Grant recipients (NCES, 2016). Additionally, faculty will have the opportunity to create a custom textbook package that specifically designed for EGSC's developmental mathematics students as opposed to an "off the rack" package developed by textbook publishers.

- Identify stakeholders affected by the transformation

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- Describe the impact of this transformation on stakeholders and course success.

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- Describe the transformative impact on the course, program, department, institutions, access institution, and/or multiple courses.

East Georgia State College offers 23 sections with an average of 35 students of Foundations of College Algebra each academic year. This equates to a cost saving to students that ranges from \$80,460 to \$188,909. This particular textbook transformation could serve as a catalyst within the mathematics department to engage and encourage other faculty members to implement no-cost-to-student textbooks for other mathematics course offerings which will impact every student enrolled at the institution because all students are required to complete at least one mathematics course as a degree requirement.

1.3 TRANSFORMATION ACTION PLAN

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1.4 QUANTITATIVE AND QUALITATIVE MEASURES

Quantitative Measures

a) Success Rates

This project will evaluate the Spring 2017 semester Success rates for Foundations of College Algebra versus the Spring, Summer, and Fall 2016 semesters Success rates for Foundations of College Algebra. A success in Foundations of College Algebra is defined as a student earning a grade of A, B, or C. Students can additionally earn grades of IP, F, W, or WF which all constitute an unsuccessful attempt.

b) Pretest-Posttest Scores

EGSC administers a pretest and posttest to all students for all courses. Thus, an ANOVA analysis will be conducted for both the pretest and posttest scores for students who took MATH 0989 in Spring 2016, Summer 2016, Fall 2016, and Spring 2017.

Qualitative Measures

Qualitative measures from Student Course Evaluations will be compared for MATH 0989 before and after implementation. Additionally, at the start and end of the project a survey will be conducted to determine students' opinions of course material including, but not limited to, organization, availability, difficulty, clarity, and cost of course material.

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source resources to other course, quality of current and textbook package, and suitability of current textbook to meet established departmental course objectives.

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1.6 BUDGET

Budget Category	Amount
1. Personnel	\$10,000
2. Travel	\$800.00
3. Equipment	\$0.00

4. Supplies	\$0.00
5. Consultants/Contracts	\$0.00
6. Other Costs	\$0.00
7. Indirect Costs	\$0.00
8. Total	\$10,800

Mr. Andrews and Mr. Drummer will be compensated \$5000 each for the extra time required to complete the project.

Project staff is required to attend the Affordable Learning Georgia Kickoff Event held on the campus on Middle Georgia State University in Macon, GA. Travel cost associated with this event is \$800.

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1.7 SUSTAINABILITY PLAN

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- 1) D2L courses can be copied from the master D2L course and modified as needed.
- 2) The selected textbook is open-source, thus any changes to a newer edition could be easily modified or excluded to meet the curriculum goals of the institution.

External to EGSC

- 1) External colleagues can access the course materials via LibGuides.
- 2) The selected textbook is open-source, thus any changes to a newer edition could be easily modified or excluded to meet the curriculum goals of any institution.

1.8 REFERENCES & ATTACHMENTS

National Center of Educational Statistics (2016). College navigator: East Georgia State College. Retrieved from <https://nces.ed.gov/collegenavigator/?q=east+georgia+state+college&s=all&id=139621#general>