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Application Summary

Competition Details

Competition Title:	Textbook Transformation Grants, Round Fifteen (Fall 2019 - Fall 2020)
Category:	University System of Georgia
Award Cycle:	Round 15
Submission Deadline:	09/16/2019 at 11:59 PM

Application Information

Submitted By:	Samuel Dolo
Application ID:	3619
Application Title:	499
Date Submitted:	09/17/2019 at 8:42 AM

Personal Details

Institution Name(s):	Savannah State University
Applicant First Name:	Samuel
Applicant Last Name:	Dolo
Applicant Email Address:	dolos@savannahstate.edu
Applicant Phone Number:	9123583292
Primary Appointment Title:	Full Professor
Submitter First Name:	Samuel
Submitter Last Name:	Dolo
Submitter Email Address:	dolos@savannahstate.edu
Submitter Phone Number:	9123583292
Submitter Title:	Full Professor

Application Details

Proposal Title

499

Requested Amount of Funding

\$8,600

Priority Category (if applicable)

Gateways to Completion (G2C)

Final Semester:

Summer 2020

Course Title(s)

College Algebra

Course Number(s)

MATH 1111

Team Member 1 Name

Talihun Muche

Team Member 1 Email

muchea@savannahstate.edu

Team Member 2 Name

Samuel Dolo

Team Member 2 Email

dolos@savannahstate.edu

Team Member 3 Name

Team Member 3 Email

Team Member 4 Name

Team Member 4 Email

Additional Team Members (Name and email address for each)

Sponsor Name

Dr. Mulatu Lemma

Sponsor Title

Chair, and Full Professor

Sponsor Department

Department of Mathematics

Average Number of Students per Course Section Affected by Project in One Academic Year

approximately 900

Average Number of Sections Affected by Project in One Academic Year

approximately 30 (Fall, Spring, and Summer Semesters)

Total Number of Students Affected by Project in One Academic Year

approximately 900

Average Number of Students Affected per Summer Semester

approximately 25

Average Number of Students Affected per Fall Semester

approximately 600

Average Number of Students Affected per Spring Semester

approximately 200

Original Required Commercial Materials (title, author, price, and bookstore or retailer URL showing price)

Current text material includes the test book: College Algebra 10th edition, by Larson

ISBN: 1337282294

ISBN-13;9781337282291

Original Total Cost per Student

Approximately \$200

Post-Project Cost per Student

\$0

Post-Project Savings per Student

Approximately \$200

Projected Total Annual Student Savings per Academic Year

Approximately \$180,000

Using OpenStax Textbook?

Yes

Project Goals**1. Project Goals**

A. To identify an appropriate on-line textbook options, at no cost to students, and replace high-cost textbooks by high-quality and affordable instructional materials, through open Education Resources, which can be adopted for use in College Algebra at the Savannah State University.

B. To determine options, which match the curriculum guidelines, set forth for each course in the Savannah State University Course Catalogue and department course syllabi.

C. Identifying other free, online tutorial resources that would engage students in a deeper understanding of the topics and concepts covered in these courses

D. This project serves to increase enrollment, retention and progress in the course and raise cognizance to students regarding resources currently available to them, such as GALILEO.

Statement of Transformation

2. Statement of Transformation

It is estimated that approximately 90% of Savannah State University's students are on some form of financial aid, and because of limited finances, far too many students are unable to purchase their textbooks. Year after year we have observed that financial constraints has been a major factor for some students opting out of homework assignments (which accounts for approximately 20% of the semester grade) because of the high cost of MATH 1111 textbooks. There is no denying that the high cost of textbook places financial burden on our students, which in turn causes substantial decrease in academic performance as well as the likelihood of high withdrawal rates. Furthermore, academic withdrawals in turn leads to decrease in retention and lower university graduation rates. Based on this scenario, it is important to note that the department of mathematics has made gradual but steady progress in the area of textbooks affordability for our students over the years – ranging from high cost hard copy textbooks to moderate cost computer software electronic textbooks. For the current academic year the department is again experimenting with low cost textbooks for our lower level courses, especially MATH 1111 (College Algebra). MATH 1111 is a major concern for several reasons. First, MATH 1111 is a gateway course. Second, MATH 1111 is currently being redesigned because of its high failure rate of approximately 30% to 40%. Third, MATH 1111 has the largest enrollment of students in comparison to all other math course within the department. For example, for the current Fall 2019 semester there are 19 different sections of MATH 1111 (approximately 25 – 30 students enrolled in each section).

One of the solutions to the problem of high failure rates in MATH 1111 is for students to have access to a low or no cost text from Affordable Learning Georgia and its associated links. One of the key benefits for the textbook transition is immediate access to online study materials, which enable the students to become engaged from the first day of classes. No cost text will help to remedy the painful problem many students face every semester by falling behind in their academic performance due to financial aid delays in purchasing textbooks. With this mini grant we will make every effort to find and organize a comprehensive support material for the enhancement of pedagogy and learning in MATH 1111. It is important to note the uniformity characteristic of MATH 1111, and as a result we will work in close consultation with our colleagues within our department for the purpose of seeking their input and recommendations in adopting appropriate topics (concepts) and applications.

Transformation Action Plan

3. Transformation Action Plan

We will work towards an alignment of pedagogy and assessment with the affordable textbook. To accomplish this we will meet twice a month with instructors who teach the course to examine course delivery and activities progress. In other words we will review all course materials and identify adopting free educational open resources with the objective of finding the most appropriate open texts online resources and align them with departmental goals and objectives. It is important to note that some comprehensive digital notes have been created and have been in use by the instructors thus far (which can be incorporated with Free Online Resources from Affordable Learning Georgia such as: eBooks from Open Textbook Library and notes developed by the faculty will be converted to digital notes and uploaded into D2L and the library tech specialist will develop lib guides).

After our selection, the team member will meet with all math faculty members to decide on the text favored for adoption. We will develop a syllabus for the course and replace a commercial textbook with a free open text from Affordable Learning Georgia and incorporate computerized homework by using D2L. Existing syllabi will be revised to integrate the use of free library resources and free text support. Appropriate references and links to online resources will be identified according to the outlined topics and objectives of each course. There will be links to the library guides and other free resources placed on reserve in the library. A checklist for navigating multimedia components of the course will be added. We will also do the following:

place hard copies of the selected eBooks in the library for references, generate homework, assignments and quizzes, review online course resources, develop the course content, incorporated with Free Online Resources into the content and prepare the video lectures, work with librarian to create lib guides for the courses.

All students who are enrolled for college algebra course will have access to these free resources that will be offered via D2L. This access to the transformed courses will be immediate. Free web based Internet resources like: Khan academy at: <http://www.khanacademy.org> and Google at: <http://www.google.com> will be used to support the class digital notes and on-line texts.

Quantitative & Qualitative Measures

4. Quantitative and Qualitative Measures

Grade data (including semester grades, grades on assignments, quizzes, projects, and tests throughout the course) for students will be collected. We will then compare grades and DFW rates with those from previous semesters to assess the success of the course with regards to the learning outcomes. For qualitative purposes data will also be collected through surveys to determine how the various aspects of the course impacted their learning. In essence, the project will be evaluated as follows:

1) To evaluate this project, data will be collected from different sources: Pass, Drop, Fail and Withdraw (PDFW). This data will then be cross tabulated along with the Cumulative Final exam results.

2) Students Overall Performance (**Quantitative**)

- Percentage of Excellent A, or Very good B grades
- Rubric for the PFWD in comparison to previous semesters

Rubric							
Course	Semester year	Number of Students expected to be Registered	With draw %	Drop	Cumulative Final Exam (median)	Pass% individual score greater than or equal to	Fail % Individual score are less than
College Algebra	Fall 2019	900	8%	5%		70	69

3. PFWD Expected Outcomes (Quantitative)

- Percent pass greater than or equal to 65
- Percent fail less than or equal to 35
- Percent withdrawn strictly less than 8%

4. Technological Competency (Survey feedback, Qualitative)

- Internet skills, retrieving and managing information via technology
- Use available technology effectively and efficiently to locate, retrieve, and manage information

5. Student feedback through survey (end of semester)

- Questionnaires reflecting qualitative measures using

<http://www.surveymonkey.com>

Timeline

Dates	Action
8/19/2019 – 11/20/2019	Review the e-textbooks and map the concepts and learning objectives of the course to the sections of the texts, evaluate support materials, develop student surveys, submit transformation proposal
9/13/2019 – 10/5/2019	Evaluate and approve of pilot textbook for Spring adoption
10/5/2019 -11/20/2019	Development of course assessment materials
9/7/2019 - 3/11/2020	Develop assessment strategies & 1st Status Report
01/4/2020 – 07/22/2020	Implementation, Evaluation & Preparation of Final Status Report, submit final report of findings to Affordable Learning Georgia

Budget

6. Budget

Dr. Samuel Dolo will review, select and identify online resources, and the adoption of no cost open access material, course alignment and content redesign of MATH 1111. He will be conducting research on different strategies and collaborative learning techniques in College Algebra, MATH 1111.

Dr. Muche will create additional resources and identifying the content, which will help STEM and NON-STEM students to develop learning outcomes that are aligned with their majors. He will organize supplemental resources.

- Material cost kickoff meetings and other travel as necessary (Instructional Materials) \$800.00
- Workshops and conferences \$800.00 (\$400 per person)
- Faculty additional time spent on preparation the material \$3,500 per faculty.

Sustainability Plan

7. Sustainability Plan

MATH 1111 is a gateway course with the largest enrollment of students in comparison to all other math courses within the department. For example, for the current Fall 2019 semester there are 19 different sections of MATH 1111 (approximately 25 – 30 students enrolled in each section) and it is estimated that there will be 10 sections of MATH 1111 in Spring 2020. Anticipating that the project would be successful and impactful, we will share our materials with the department via D2L in Fall 2020 and will then make a recommendation for its full implementation throughout the department. We will review our assessment results every semester for possible revisions and expansions of materials via D2L. If the opportunity arises, we will share our findings at local and national conferences.

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.

September 16, 2019

Dear Review Board:

I am delighted to offer this letter of support for Savannah State University's Gateways to Completion Textbooks Transformation grant application. For several years now, the department of mathematics has made gradual but steady progress in the area of textbooks affordability for our students – ranging from high cost hard copy textbooks to moderate cost computer software electronic textbooks. For the current academic year the department is again experimenting with low cost textbooks for our lower level courses. I strongly believe that with the approval of this mini grant, Dr. Tilahun Muche and Dr. Samuel Dolo to make every effort to find an affordable textbook of no cost for MATH 1111 (College Algebra) that will meet the standard requirements of both the department of mathematics and the College of Sciences and Technology. Currently Dr. Muche and Dr. Dolo are in the final phase of redesigning MATH 1111 and interestingly the issue of textbook affordability is germane to their redesign effort.

Thank you for your favorable consideration of Savannah State University's application for Gateways to Completion Textbook Transformation grant application. Please contact me should you have any questions regarding this project.

Sincerely,



Dr. Mulatu Lemma

Chair, Department of Mathematics



Textbook Transformation Grants, Round Fifteen (Fall 2019 – Fall 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 will on the [Round 15 RFP Page](#) in July 2019.
- The italic text provided below 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)	Savannah State University
Applicant Name	Samuel Dolo
Applicant Email	dolos@savannahstate.edu
Applicant Phone #	912-358-3292
Applicant Position/Title	Full Professor
Submitter Name	
Submitter Email	
Submitter Phone #	
Submitter Position	

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	Talihun Muche	muchet@savannahstate.edu
Team Member 2	Samuel Dolo	dolos@savannahstate.edu
Team Member 3		
Team Member 4		
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.

Project Information and Impact Data

Priority Category / Categories	<i>Priority categories: "Specific Core Curriculum Courses," "Scaling Up OER," "Gateways to Completion," and/or "Upper-Level Campus Collaborations." See the RFP document for details. Otherwise, put "None."</i>
Requested Amount of Funding	\$8,600.00
Course Names and Course Numbers	College Algebra, MATH 1111
Final Semester of Project	Summer 2020 or Fall 2020
Average Number of Students Per Course Section Affected by Project	Approximately 900
Average Number of Sections Affected by Project in One Academic Year	30 (Fall, Spring, and Summer Semesters)
Total Number of Students Affected by Project in One Academic Year	Approximately 900
Average Number of Students Affected per Summer Semester	Approximately 25
Average Number of Students Affected per Fall Semester	Approximately 600
Average Number of Students Affected per Spring Semester	Approximately 200
Original Required Commercial Materials	<i>Current text material includes the test book: College Algebra 9th edition Larson</i>
Total Price of Original Required Materials Per Student	Approximately \$200
Post-Project Cost Per Student	0

Post-Project Savings Per Student	<i>Approximately \$200</i>
Projected Total Annual Student Savings Per Academic Year	<i>\$180,000</i>
Using OpenStax Textbook?	<i>Yes/No. This is to indicate to OpenStax that they can provide additional support to your team during the adoption process.</i>

Narrative Section

1. Project Goals

- A. To identify an appropriate on-line textbook options, at no cost to students, and replace high-cost textbooks by high-quality and affordable instructional materials, through open Education Resources, which can be adopted for use in College Algebra at the Savannah State University.
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Note: Letter of Support