Application Details

Manage Application: ALG Textbook Transformation Grants

Award Cycle:	Round 6
Internal Submission Deadline:	Monday, August 1, 2016

Application Title:	241
Application ID:	#001134
Submitter First Name:	Sara
Submitter Last Name:	Selby
Submitter Title:	Professor of English and Academic Affairs Projects Specialist
Submitter Email Address:	sara.selby@sgsc.edu
Submitter Phone Number:	912-449-7576
Submitter Campus Role:	Proposal Investigator (Primary or additional)
Applicant First Name:	Molly
Applicant Last Name:	Smith
Co-Applicant Name(s):	Sara Selby
Applicant Email Address:	molly.smith@sgsc.edu
Applicant Phone Number:	912-449-7578
Primary Appointment Title:	Professor of Biology
Institution Name(s):	South Georgia State College
Submission Date:	Monday, August 1, 2016

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

Dr. Molly E. Smith, Professor of Biology, School of Sciences, molly.smith@sgsc.edu
Sara Selby, Professor of English and Academic Affairs Projects Specialist, Academic Affairs, sara.selby@sgsc.edu

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

Dr. Charles Johnson, Dean, School of Science, South Georgia State College

Proposal Title: 241

Course Names, Course Numbers and Semesters Offered:

Microbiology, BIOL 2215K, offered every semester

Final Semester of Instruction:	Fall 2017
Average Number of Students per Course Section:	24
Number of Course Sections Affected by Implementation in Academic Year:	2 (or 3 if summer is included)
Total Number of Students Affected by Implementation in Academic Year:	48 (or 72 if summer is included)
List the original course materials for students (including title, whether optional or required, & cost for each item):	Microbiology w/ Diseases by Body System by Bauman, required, $228.00Microbiology Lab Manual by Sundrum, required, $79.80
Proposal Category:	Specific Top 100 Undergraduate Courses
Requested Amount of Funding:	$10,800
Original per Student Cost:	$307.80
Post-Proposal Projected Student Cost:	$0
Projected Per Student Savings:	$307.80
Projected Total Annual Student Savings:	$14,774.40 (or $22,161.60 if Summer semester is included) This projection includes just one campus of SGSC; if both campuses were to adopt the open text, the projection would be doubled.

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

OpenStax CNX, iBooks Author, Merlot, Curriki

Project Goals:

Reduce costs for students pursuing degrees in allied health fields

Remix the open text to increase the likelihood of success for students in allied health fields

Create laboratory materials specifically geared towards allied health students
Incorporate more active learning strategies to facilitate student engagement
Transform course from face-to-face format to blended delivery

Statement of Transformation:

Traditional microbiology texts are typically too rigorous and massive for students in allied health fields, particularly for a one-semester course offering. Instructors generally end up rewriting the text or using only a fraction of the chapters offered. This project centers on the remixing of the new OpenStax Microbiology text to make it more suitable for students in allied health fields. The resulting remixed text will be titled Microbiology for Allied Health Students. Laboratory materials specifically designed to meet the needs of allied health programs will be created and packaged as a stand-alone open resource lab manual. A variety of active learning strategies will be developed and compiled as teaching tips for instructors. Transforming the course from a face-to-face delivery to a blended one is expected to increase enrollment; the current class size is constrained by lab space, and each semester the class enrollment reaches its maximum early in the registration period. A blended format with multiple lab sections to accompany it will extend the enrollment possibilities.

Allied health students, including but not limited to students in nursing, physician assistant, dental, and physical therapy programs, as well as instructors will be affected by this transformation. The institution will also be affected by the promise of increased enrollment, and, by extension, the entire USG will be affected.

While the obvious impact for students is economical, it is expected that the resulting textbook will be more readable, more palatable, and more usable for those in the allied health programs. Many, if not most, of these students enter their programs with no science prerequisites, and advanced texts make already challenging courses that much more difficult. When students must await financial aid disbursement to purchase textbooks or when they purchase the wrong edition of the book from online vendors, they begin the semester at a disadvantage, and this project will eliminate that disadvantage. Instructors of these courses will have a streamlined text without the superfluous technical information that makes traditional texts less than ideal for these programs. Remixing of the text so that only the concepts and information necessary for allied health programs are included should increase the likelihood of student success.

Microbiology is a course necessary for advancement in all allied health programs, and students at this institution (and most other USG institutions) must complete the course with a grade of C or better. A high proportion of the students enrolling in these programs are non-traditional students trying to work full-time while attending college. Currently, the course carries a high attrition rate, largely because students become overwhelmed with the volume and rigor

of the information included in the traditional textbook and withdraw before even attempting the first assessment. Often, job schedules change, also causing students to withdraw. A tailor-made, free, accessible textbook, available from Day 1 of the semester, might decrease the attrition rate, as might a blended delivery. Because this institution is an access institution, students seeking admission to the associate of science in nursing program comprise the primary enrollment in the current microbiology course, so a course tailored to their needs would be of great interest to them. Some of those students plan ultimately to pursue our newly developed BSN degree. Increased enrollment and success in microbiology will benefit the nursing programs, which are among the strongest programs of study here. Microbiology has never been offered online or in a blended format at this institution; the transformed delivery will help to meet the growing demand. A bachelor of science in biological sciences program was recently added, so as enrollment in that program grows, a separate microbiology course for that cadre of students will likely develop; thus, this transformation will help the department/school to plan strategically for the future.

Transformation Action Plan:

Having already used an OpenStax textbook in an Introductory Biology course, the Primary Investigator had already determined to use the new OpenStax Microbiology textbook upon availability (which will be Fall 2016). She also served as a reviewer of the text, which is what led her to see the need for a remixing of the text for allied health students. For some time, she has planned to create her own lab manual and to revise the course for blended delivery but has never had the support or been trained to do so. This project will provide the perfect opportunity to proceed.

In order to assure student engagement with the open text, the course will be redesigned to include a variety of active learning strategies. The blended delivery will be designed in accordance with Quality Matters standards and best practices. As is true with any new text adoption or course redesign, the syllabus will be revised to align with the content and delivery format.

As the Primary Investigator, instructor of record, and subject matter expert, Dr. Molly Smith is responsible for identifying the content to be included in the course modules and remixed textbook. She is also responsible for creating the lab experiments, revising the syllabus, incorporating active learning strategies into the course, and building modules for blended delivery. As distance education trainer, researcher, and editor, Sara Selby is responsible for training for blended delivery, researching and recommending active learning strategies, and for editing, formatting, and publishing all compilations. She will also ensure compliance with copyright and accessibility requirements, and she will complete and submit IRB proposals for the administration and analysis of quantitative and qualitative measures of success.

The remixed textbook will be available through OpenStax CNX. All original materials produced (lab manual and teaching tips) will be published in eBook format as well as PDF format and will be openly available from the iBooks Store and the Curriki repository. They will be indexed

through Merlot II. The blended course will be delivered via the institutional LMS (which is currently D2L/Brightspace).

Quantitative & Qualitative Measures:	Quantitative measures of success will include comparisons of Student Learning Outcomes (SLOs) success and DFW delta rates between previous sections of the course taught by the same professor using the traditional text and delivery and sections of the course using the OpenStax text and new lab manual and blended delivery. Particular attention will be paid to the attrition rate with the new materials and format. Qualitative measures will include surveys of student experience and satisfaction administered at the beginning and end of the course as well as mid-semester interviews. Student feedback will not be shared with the instructor of record until after the course is finished and final grades are officially recorded.

Timeline:

Because of the very ambitious four-pronged approach proposed for the transformation of this microbiology course, it is unlikely that the redesign will be completed in just one semester, so we are aiming to offer the redesigned course in Fall 2017.

September 2016: Determine what content modules will be created for online delivery. Begin review of OpenStax text to determine what material will be included in the remixed text to support those modules.

October 2016: Begin the process of building modules and remixing the text.

November 2016: Redesign the course syllabus and calendar to reflect the new delivery format and remixed text.

December 2016: Complete remixing of first draft of textbook and creation of at least half of the content modules; submit first status report.

January 2017: Begin compilation of lab manual and active learning strategies for face-to-face component of course.

February 2017: Design survey instruments to be used for qualitative assessment and begin IRB process; make final revisions to remixed textbook.

March 2017: Complete creation of content modules and compilation of lab manual; openly

publish final draft of remixed text in OpenStax CNX.

April 2017: Complete compilation of active learning strategies as teaching tips.

May 2017: Submit second status report.

June 2017: Offer redesigned course during Summer semester as a pilot with content modules and lab manual delivered via D2L/Brightspace.

July 2017: Make any revisions to materials necessary as indicated by pilot assessments; openly publish lab manual in Curriki and iBooks Store.

August 2017: Submit third status report; offer redesigned blended course during Fall 2107 semester.

September 2017: Administer first qualitative assessment.

October 2017: Conduct mid-semester interviews.

November 2017: Conduct final qualitative assessment; openly publish teaching tips in Curriki and iBooks Store and index everything through Merlot II.

December 2017: Gather and analyze qualitative and quantitative assessment data and submit final report.

Budget:

Additional salary for Dr. Molly Smith, Proposal Investigator (Primary): $5000.00*
Additional salaray for Sara Selby, Proposal Investigator (Additional): $5000.00*
Projected expenses (travel, incidentals, professional development, etc.): $800.00

*South Georgia State College does not employ instructional designers, nor do we have a functional Teaching and Learning Center. All work done for this project will be done by the proposal investigators on their own time in addition to their regular responsibilities and obligations to the institution.

Sustainability Plan:

Microbiology is offered every semester and will continue to be offered every semester at SGSC. Once the course redesign is complete, any instructor (at our institution or throughout the USG) can make use of the materials and techniques developed. Dr. Smith and Ms. Selby will maintain and update the course materials as necessary.

South Georgia State College
Division of Natural Sciences, Mathematics and Physical Education
www.sgsc.edu

To: Affordable Learning Georgia Textbook Transformation Grants Committee

Subject: Letter of support for Dr. Smith and Ms. Selby

From: Dr. Charles Johnson, Dean, School of Sciences

I want to express my support of the grant proposal to extend OpenStax textbooks to microbiology for students in allied health programs. This proposal is built upon the success both authors have had redesigning the Introductory Biology I class. The Project goals are as follows:

- Reduce costs for students pursuing degrees in allied health fields;
- Remix the open text to increase the likelihood of success for students in allied health fields;
- Create laboratory materials specifically geared towards allied health students;
- Incorporate more active learning strategies to facilitate student engagement;
- Transform course from face-to-face format to blended delivery.

These goals match the goals (from SGSC's master plan) to implement an enrollment improvement plan focused on recruitment, retention, and student success, and to develop academic program options to meet student and community needs.

As can be seen from the proposal; the microbiology course impacts a large number of the students at SGSC since all nursing student have to take the class. This proposal will lower the cost of college for students and contribute to their retention, progression, and graduation (ALG goal number 3) at SGSC.

Microbiology is offered every semester and will continue to be offered every semester at SGSC, so the project's sustainability is guaranteed. Dr. Smith and Ms. Selby have committed to maintaining and updating the course materials as necessary. In the future, this project will be rolled out to the other campuses for adoption. The School of Sciences supports this project and will benefit from the work of Dr. Smith and Ms. Selby.

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	Sara Selby
Submitter Title	Academic Affairs Projects Specialist and Professor of English
Submitter Email	sara.selby@sgsc.edu
Submitter Phone Number	912-449-7576
Submitter Campus Role	Proposal Investigator (Additional)
Applicant Name	Dr. Molly Smith
Applicant Email	molly.smith@sgsc.edu
Applicant Phone Number	912-449-7578
Primary Appointment Title	Professor of Biology
Institution Name(s)	South Georgia State College

Team Members	Dr. Molly E. Smith, Professor of Biology, molly.smith@sgsc.edu Sara Selby, Professor of English and Academic Affairs Projects Specialist, sara.selby@sgsc.edu				
Sponsor, Title, Department, Institution	Dr. Charles Johnson, Dean, School of Science				
Proposal Title	Microbiology for Students in Allied Health Programs				
Course Names, Course Numbers and Semesters Offered	Microbiology, BIOL 2215K, offered every semester				
Final Semester of Instruction	Fall 2017				
Average Number of Students Per Course Section	24	**Number of Course Sections Affected by Implementation in Academic Year**	**2**	**Total Number of Students Affected by Implementation in Academic Year**	48
Award Category (pick one)	☐ No-Cost-to-Students Learning Materials ☐ OpenStax Textbooks ☐ Specific Top 50 Lower Division Courses				
List the original course materials for students (including title, whether optional or required, & cost for each	***Microbiology w/ Diseases by Body System*** by Bauman, required, $228.00 ***Microbiology Lab Manual*** by Sundrum, required, $79.80				

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Requested Amount of Funding	$10,800.00
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Creation and Hosting Platforms Used	OpenStax CNX, iBooks Author, Merlot, Curriki

NARRATIVE

1.1 PROJECT GOALS

- Reduce costs for students pursuing degrees in allied health fields
- Remix the open text to increase the likelihood of success for students in allied health fields
- Create laboratory materials specifically geared towards allied health students
- Incorporate more active learning strategies to facilitate student engagement
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1.2 STATEMENT OF TRANSFORMATION

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Quantitative measures of success will include comparisons of Student Learning Outcomes (SLOs) success and DFW delta rates between previous sections of the course taught by the same professor using the traditional text and delivery and sections of the course using the OpenStax text and new lab manual and blended delivery. Particular attention will be paid to the attrition rate with the new materials and format.

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1.8 REFERENCES & ATTACHMENTS

See attached letter from Dr. Charles Johnson.