

Application Details

Manage Application: ALG Textbook Transformation Grants

Award Cycle: Round 9

Internal Submission Deadline: Sunday, April 30, 2017

Application Title: 309

Application ID: #001751

Submitter First Name: Veronica

Submitter Last Name: Morin

Submitter Title: Associate Professor of Biology

Submitter Email Address: vmorin@highlands.edu

Submitter Phone Number: 706.368.7516

Submitter Campus Role: Proposal Investigator (Primary or additional)

Applicant First Name: Veronica

Applicant Last Name: Morin

Co-Applicant Name: Andrew Dawson

Applicant Email Address: vmorin@highlands.edu

Applicant Phone Number: 706.368.7516

Primary Appointment Title: Associate Professor of Biology

Institution Name(s): Georgia Highlands College

Submission Date: Monday, May 1, 2017

Proposal Title: 309

Final Semester of Instruction: Spring 2018

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

Veronica Morin, Ed.D., Associate Professor of Biology, Division of Natural Science, Georgia Highlands College, vmorin@highlands.edu

Andrew Dawson, Associate Professor of Biology, Georgia Highlands College, adawson@highlands.edu

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

Course Names, Course Numbers and Semesters Offered:

Introductory Medical Microbiology, BIOL 2161K. This one semester course is designed for allied-health majors and is offered in fall, spring and summer semesters. Project will begin in Fall 2017 and conclude Spring 2018.

Average Number of Students per Course Section: 20

Number of Course Sections Affected by Implementation in Academic Year: 17

Total Number of Students Affected by Implementation in Academic Year: 340

List the original course materials for students (including title, whether optional or required, & cost for each item): Currently Required Textbook: Microbiology: A Systems Approach, 4th Edition by Kelly Cowan. \$271.25 new/ \$203.50 used at the campus bookstore.

Proposal Categories: OpenStax Textbooks

Requested Amount of Funding: 10,800

Original per Student Cost: 271.25

Post-Proposal Projected Student Cost: no cost to student

Projected Per Student Savings: 271.25

Projected Total Annual Student Savings: \$92,225.00

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

Desire2Learn (D2L) by Brightspace will be used to share generated resources with faculty and students. In addition, Galileo Open Learning Materials repository will be used to host and share the newly created ancillary materials with the public.

Project Goals:

To increase student success and retention, we have outlined the following project goals aimed at decreasing the financial burden on Introductory Medical Microbiology (BIOL 2161L) students

at our institution:

To adopt *Microbiology* (ISBN-13 978-1-938168-14-7), a no-cost textbook published by OpenStax at Rice University.

Redesign the course syllabus to align with the newly adopted textbook required for the course.

To generate and publish no-cost student support materials (Power Point lecture presentations) that supplements the OpenStax Microbiology textbook.

To generate and publish a no-cost laboratory manual that students can access in an open format via the course learning management system (D2L).

To publish all newly created course lecture materials on Galileo Open Learning Materials repository.

To survey enrolled students to determine the accessibility, quality and usefulness of generated resources in achieving student learning outcomes and student satisfaction.

Statement of Transformation:

More than 250 students were enrolled in Introductory Medical Microbiology (BIOL 2161) at Georgia Highlands College during the 2016-2017 academic year, across three campus sites (Floyd, Cartersville, & Douglasville). The current textbook *Microbiology: A Systems Approach*, 4th edition by Kelly Cowan has a list price of approximately \$271 for a new textbook and \$203 for a used textbook at the campus bookstore. Requiring this textbook creates a financial burden for many of the students pursuing allied health degrees, such as nursing and dental hygiene, especially for a one-term course. Due to financial hardships, many students do not purchase the textbook and therefore can not complete reading assignments and chapter review questions. The burden associated with cost of required materials creates barriers to student success in the course when they are unable to prepare for lecture and review course content by independently reviewing the content in the textbook. Implementing a no-cost textbook will provide a more affordable option for students while increasing utilization of course materials impacting retention and improving student achievement of course learning outcomes.

The redesign of Introduction to Medical Microbiology (BIOL 2161) course will positively impact students, faculty and the institution. Adopting an Open Educational Resource (OER) as the required textbook for the course will directly benefit students financially, since there will be no cost in accessing course materials and will also allow students to retain course materials as a reference, rather than selling back the textbook at the end of the term. The course redesign will also allow more continuity among course sections by providing a “master course” template made accessible in the course management learning system (D2L) that can be utilized by full-time and part-time faculty. The department and institution will also benefit by generating an in-house comprehensive laboratory manual that reflects the limitations and the additional expenses associated with acquisition for laboratory materials and space availability encountered when running several sections of microbiology labs at multiple sites. Laboratory

exercises can be designed to facilitate experiential learning while considering the restrictions in space, available resources and equipment, and minimizing the cost of required laboratory supplies. In addition, the laboratory manual will be delivered to students electronically through D2L and department web pages, reducing printing costs and increasing sustainability of resources.

Transformation Action Plan:

The Microbiology OpenStax textbook will be implemented for the Fall 2017 term at Georgia Highlands College to decrease the burden of cost for students in acquiring required course materials. The current textbook is publishing a new edition which will dramatically increase student costs and also limits the availability of used textbooks for students who have financial hardships. The Principle Investigator, Dr. Veronica Morin, will provide oversight of the various responsibilities associated with the implementation of the Microbiology OpenStax textbook. These responsibilities include the development of the proposal, generation of new course syllabus and student support materials (Power Point presentations and laboratory manual), confirming access to course materials via course management learning system (D2L) for instructors and students, conducting Student Learning Outcome assessments, and generating the final report. Mr. Andrew Dawson, a subject matter expert, will be responsible for developing new lecture presentation materials that support the content in the Microbiology OpenStax textbook. Dr. Morin & Mr. Dawson will create and modify existing laboratory exercises in order to reduce costs and address space limitations in microbiology laboratories. The team will be responsible for coordinating pedagogical strategies among instructors teaching Introductory Medical Microbiology (BIOL 2161) using the newly developed materials. All documents, with the exception of satisfaction surveys, will be accessible to students and instructors via the course management learning system (D2L).

Quantitative & Qualitative Measures: Quantitative measures will include: A direct comparison of final course grades between semesters using Cowan's Microbiology: A Systems Approach, 4th Ed. compared to final course grades using the newly implemented OpenStax Microbiology textbook. Assessment of current Student Learning Outcomes utilizing the previous proprietary textbook compared to the OpenStax Microbiology textbook. A direct comparison of final laboratory averages before and after the implementation of newly revised laboratory manual. Qualitative measures will include: A survey of overall student satisfaction will be given at the end of term assessing the quality of the textbook, frequency of use, and overall opinion of open educational resources implemented in the lecture and laboratory components of the course. The student satisfaction survey will be administered in a manner so that responses will remain anonymous and therefore does not require Institutional Review Board approval.

Timeline:

June 2017

Attend Kick-off meeting if grant is awarded.

June-August 2017

Develop PowerPoint lecture presentations to accompany OpenStax textbook.
Develop laboratory manual

August 2017

Implement OpenStax textbook and student support materials into Fall 2017 courses. All course materials will be accessible to enrolled students via course learning management system (D2L).

December 2017

Survey students and collect assessment data. Perform data analysis on W,D,F rates, achievement of student learning outcomes, and student satisfaction with quality and accessibility of course materials.
Edit and/or modify specific content areas or resolve accessibility issues.

January 2018

Implement OpenStax textbook and revised student support materials into Spring 2018 courses. All course materials will be accessible to enrolled students via course learning management system (D2L).

April 2018

Survey students and collect assessment data. Perform data analysis on W,D,F rates, achievement of student learning outcomes, and student satisfaction with quality and accessibility of course materials.

Edit and/or modify specific content areas or resolve accessibility issues.

Publish course materials on Galileo Open Learning Materials repository.

Complete and submit final report.

Budget:

Travel to Kick-off meeting for team members: **\$800.00**

Stipend/Course releases for Veronica Morin: **\$5,000.00**

Grant writer and subject matter expert for development of syllabus and laboratory manual, administrator of Student Learning Outcome assessment and student satisfaction survey assessment and course materials accessibility via course management learning system (D2L).

Stipend/Course releases for Andrew Dawson: **\$5,000.00**

Subject matter expert responsible for development of PowerPoint lecture presentations to accompany Microbiology OpenStax textbook and development of laboratory manual.

Sustainability Plan:

All generated course materials will be housed in a master course shell that will be accessible to instructors via D2L and be published on Galileo Open Learning Materials repository. The Microbiology course coordinator will be responsible for course assessments, updating content and editing documents for each term as needed.

GEORGIA HIGHLANDS



COLLEGE

FLOYD CAMPUS
3175 Cedartown Highway
Rome, GA 30161

VICE PRESIDENT
FOR ACADEMIC AFFAIRS

April 27, 2017

Dear ALG Grants Committee Members:

I am pleased to write this letter in support of Associate Professor of Biology Veronica Morin and Professor of Biology Andy Dawson, as they seek grant funding to incorporate free and open texts and other instructional materials for Introduction to Medical Microbiology BIOL 2161K. There are numerous reasons of efficiency, pedagogy, and instructional transformation which compel me to support this initiative.

First, this outstanding team of collegiate educators will engage in a thoughtful process that will broadly affect the student body at Georgia Highlands College. We expect to affect some 340 students per year through redesign of this course, a significant number of students needing to complete the health science pathway. Specifically, it would affect about 20 students per section x 17 sections per year, or about 340 in a year's time.

Second, money saved through this plan's implementation would provide opportunity for both economy and learning. Case in point, with textbook costs rising at an unheard of rate, our students could be saving \$92,225 by replacing current texts with open educational resources and through the generation of new lab manual and open learning materials that will be freely available to all students. In our bookstore, a new text for this class costs \$271 or \$203 for a used version. We know this affects our students' foundational learning, tenacity, and ability to thrive in this class.

Finally, this affordable learning grant will serve as a catalyst for enhanced teaching and learning. It will serve as a springboard for innovation on the part of faculty who work to make those materials more creative, applied, and relevant in today's biology classroom. It will send the message that GHC faculty members care about their students, economically, socially and intellectually. It will urge students to persist and to complete in a discipline that too often is a stumbling block to college completion.

I wholeheartedly endorse this ALG Transformation Grant application from these forward-thinking, action-oriented professors. Their plan is noteworthy and laudable. Please allow them to continue their essential work through the approval of the grant.

Sincerely,

Renna Watterson, Ed.D.

highlands.edu

Affirmative Action / Equal Employment and Educational Opportunity Institution

CARTERSVILLE CAMPUS
678-872-8000

DOUGLASVILLE SITE
678-872-4200

FLOYD CAMPUS
706-802-5000

MARIETTA SITE
678-872-8501

PAULDING SITE
678-946-1100

Round Nine

For Implementations beginning Summer Semester 2017

Running Through Spring Semester 2018

Proposal Form and Narrative

- *The proposal form and narrative .docx file is for offline drafting and review. Submitters must use the InfoReady Review online form for proposal submission.*
- **Note: The only way to submit the proposal is through the online form in Georgia Tech’s InfoReady Review at:**

<https://gatech.infoready4.com/#competitionDetail/1757803> _
- *If you are copying and pasting into InfoReady Review from this form, first convert the file to **plain text** and copy/paste from the plain text file.*
 - o *In Word, go to File > Save As... > and change the file format to “Plain Text (.txt).”*
 - o *Copy and paste from the .txt file.*
 - o *Be sure to save both copies in case you are asked to resubmit.*
- *Microsoft Word Document formatting pasted into InfoReady Review will render the reviewer copy unreadable. **If you paste Word-formatted tables into InfoReady Review, you may be asked to resubmit your application if time permits.***
- *Italicized text is provided for your assistance; please do not keep the italicized text in your submitted proposal. Proposals that do not follow the instructions may be returned.*

Submitter Name	Veronica Morin, Ed.D
Submitter Title	Associate Professor of Biology
Submitter Email	Vmorin@highlands.edu
Submitter Phone Number	706.368.7516

Submitter Campus Role	Proposal Investigator (Primary)
Applicant Name	Veronica Morin, Ed.D & Andrew Dawson
Applicant Email	Vmorin@highlands.edu adawson@highlands.edu
Applicant Phone Number	706.368.7516
Primary Appointment Title	Veronica Morin, Ed.D., Associate Professor of Biology Andrew Dawson, Professor of Biology
Institution Name(s)	Georgia Highlands College
Team Members	Veronica Morin Andrew Dawson
Sponsor, Title, Department, Institution	Dr. Renva Watterson, Ed.D. Vice President for Academic Affairs
Proposal Title	ALG Microbiology @ GHC
Course Names, Course Numbers and Semesters Offered	Introductory Medical Microbiology (BIOL 2161K). This one semester course is designed for allied health majors and is offered in fall, spring, and summer semesters on at least 2 campus locations.
Final Semester of Instruction	Spring 2018

Average Number of Students Per Course Section	20	Number of Course Sections Affected by Implementation in Academic Year	17	Total Number of Students Affected by Implementation in Academic Year	340
Award Category (pick one)	<input 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)	Required: <i>Microbiology: A Systems Approach</i> by Kelly Cowan, 4 th Edition. Cost at campus bookstore \$271.25 new/\$203.50 used.				
Requested Amount of Funding	\$10,800.00				
Original Per Student Cost	\$271.25				
Post-Proposal Projected Per Student Cost	No cost to student				
Projected Per Student Savings	\$271.25				
Projected Total Annual Student Savings	\$92,225.00				

**Creation and
Hosting
Platforms
Used**

Desire2Learn (D2L) by Brightspace will be used to share generated resources with faculty and students. In addition, Galileo Open Learning Materials repository will be used to host and share the newly created ancillary materials with the public.

1.1 PROJECT GOALS

To increase student success and retention, we have outlined the following project goals aimed at decreasing the financial burden on BIOL 2161K students at our institution:

1. To adopt *Microbiology* (ISBN-13 978-1-938168-14-7), a no-cost textbook published by OpenStax at Rice University.
2. Redesign the course syllabus to align with the newly adopted textbook required for the course.
3. To generate and publish no-cost student support materials (Power Point lecture presentations) that supplements the OpenStax Microbiology textbook.
4. To generate and publish a no-cost laboratory manual that students can access in an open format via the course learning management system (D2L).
5. To publish all newly created course lecture materials on Galileo Open Learning Materials repository.
6. To survey enrolled students to determine the accessibility, quality and usefulness of generated resources in achieving student learning outcomes and student satisfaction.

1.2 STATEMENT OF TRANSFORMATION

More than 250 students were enrolled in Introductory Medical Microbiology (BIOL 2161L) at Georgia Highlands College during the 2016-2017 academic year, across three campus sites (Floyd, Cartersville, & Douglasville). The current textbook *Microbiology: A Systems Approach*, 5th edition by Kelly Cowan has a list price of approximately \$271.25 for a new copy and \$203.50 for a used copy at the campus bookstore. Requiring this textbook creates a financial burden for many of the students pursuing allied health degrees, such as nursing and dental hygiene, especially for a one-term course. Due to financial hardships, many students do not purchase the textbook and therefore cannot complete reading assignments and chapter review questions/activities. The burden associated with cost of required materials creates barriers to student success in the course when they are unable to prepare for lecture and review course content by reviewing chapters in the textbook. Implementing a no-cost textbook will provide a more affordable option for students while increasing utilization of course materials impacting retention and improving student achievement of course learning outcomes.

The redesign of Introduction to Medical Microbiology (BIOL 2161) course will positively impact students, faculty and the institution. Adopting an Open Educational Resource (OER) as the required textbook for the course will directly benefit students financially, since there will be no cost in accessing course materials and will also allow students to retain course materials as a reference, rather than selling back the textbook at the end of the term. The course redesign will also allow more continuity among course sections by providing a “master course” template made accessible in the course management learning system (D2L) that can be utilized by full-time and part-time faculty. The department and institution will also benefit by generating an in-house comprehensive laboratory manual that reflects the limitations and the additional expenses associated with acquisition for laboratory materials and space availability encountered when running several sections of microbiology labs at multiple sites. Laboratory exercises can be designed to facilitate experiential learning while considering the restrictions in space, available resources and equipment, and minimizing the cost of required laboratory supplies. In addition, the laboratory manual will be delivered to students electronically through D2L and department web pages, reducing printing costs and increasing sustainability of resources.

1.3 TRANSFORMATION ACTION PLAN

The Microbiology OpenStax textbook will be implemented for the Fall 2017 term at Georgia Highlands College to decrease the burden of cost for students in acquiring required course materials. The Principle Investigator, Dr. Veronica Morin, will provide oversight of the various responsibilities associated with the implementation of the Microbiology OpenStax textbook. These responsibilities include the development of the proposal, generation of new course syllabus and student support materials (Power Point presentations and laboratory manual), confirming access to course materials via course management learning system (D2L), Student Learning Outcome assessments, and generation of the final report. Mr. Andrew Dawson, a subject matter expert and instructional designer, will be responsible for developing new lecture presentation materials that support the content in the Microbiology OpenStax textbook. Dr. Morin & Mr. Dawson will update and modify laboratory exercises in order to reduce costs and address space limitations in microbiology laboratories. The team will be responsible for coordinating pedagogical strategies among instructors teaching Introduction to Medical Microbiology (BIOL 2161) using the newly developed materials. All documents, with the exception of satisfaction surveys, will be accessible to students and instructors via the course management learning system (D2L).

1.4 QUANTITATIVE AND QUALITATIVE MEASURES

Quantitative measures will include:

- A direct comparison of final course grades between semesters using Cowan's *Microbiology: A Systems Approach, 4th Ed.* compared to final course grades using the newly implemented OpenStax Microbiology textbook.
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- A direct comparison of final laboratory averages before and after the implementation of newly revised laboratory manual.

Qualitative measures will include:

- A survey of overall student satisfaction will be given at the end of term assessing the quality of the textbook, frequency of use, and overall opinion of open educational resources implemented in the lecture and laboratory components of the course. The student satisfaction survey will be administered using SurveyMonkey.com so that responses will remain anonymous while providing analytics for each question.

1.5 TIMELINE

June-August 2017

Develop PowerPoint lecture presentations to accompany OpenStax textbook.

Develop laboratory manual.

August 2017

Implement OpenStax textbook and student support materials into Fall 2017 courses. All course materials will be available to enrolled students via D2L.

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Survey students and collect data on materials. Use data to modify and/or improve specific content areas or accessibility.

January 2018

Implement OpenStax textbook and revised student support materials into Spring 2018 courses. All course materials will be available to enrolled students via D2L.

April 2018

Survey students and collect data on materials. Make final revisions to support materials.

Publish all generated lecture and laboratory materials on Galileo Open Learning Materials Repository.

1.6 BUDGET

\$800 Travel

Travel funds to attend Kick-off meeting for team members (Veronica Morin & Andrew Dawson).

\$5,000 Veronica Morin

Grant writer, Instructional Designer and subject matter expert for development of syllabus and laboratory manual, administrator of Student Learning Outcome assessment and student satisfaction survey assessment and course materials accessibility via course management learning system (D2L).

\$5,000 Andrew Dawson

Instructional Designer and subject matter expert responsible for development of PowerPoint lecture presentations to accompany Microbiology OpenStax textbook and development of laboratory manual.

1.7 SUSTAINABILITY PLAN

All generated course materials will be housed in a master course shell that will be accessible to instructors via D2L and be published on Galileo Open Learning Materials repository. The Microbiology course coordinator will be responsible for course assessments, updating content and editing documents for each term as needed.

1.8 REFERENCES & ATTACHMENTS

Affordable Learning Georgia <http://www.affordablelearninggeorgia.org/>

Microbiology, OpenStax College (ISBN-10 1-938168-14-3)

GEORGIA HIGHLANDS



COLLEGE

FLOYD CAMPUS
3175 Cedartown Highway
Rome, GA 30161

VICE PRESIDENT
FOR ACADEMIC AFFAIRS

April 27, 2017

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Sincerely,



