

Application Details

Manage Application: ALG Textbook Transformation Grants Round Five

Award Cycle: Round 5

Internal Submission Deadline: Tuesday, December 15, 2015

Application Title: 219

Submitter First Name: Renva

Submitter Last Name: Watterson

Submitter Title: Vice President of Academic Affairs

Submitter Email Address: rwatters@highlands.edu

Submitter Phone Number: 706-802-5814

Submitter Campus Role: Provost / Academic Affairs Office

Applicant First Name: Thomas

Applicant Last Name: Harnden

Applicant Email Address: tharnden@highlands.edu

Applicant Phone Number: 678-872-8070

Primary Appointment Title: Professor of Biology

Institution Name(s): Georgia Highlands College

Team Members (Name, Title, Department, Institutions if different, and email address for each. Include the applicant in this list.):

Thomas Harnden, Professor of Biology, Division of Natural Science and Physical Education, Georgia Highlands College, tharnden@highlands.edu

Andrew Dawson, Associate Professor of Biology, Division of Natural Science and Physical Education, Georgia Highlands College, adawson@highlands.edu

Sharryse Henderson, Associate Professor of Biology, Division of Natural Science and Physical Education, Georgia Highlands College, shenders@highlands.edu

Jason Christian, Science Laboratory Coordinator, Division of Natural Science and Physical Education, Georgia Highlands College, jachrist@highlands.edu

Christin Collins, Assistant Librarian of Public Services; Paulding Campus Library, Georgia Highlands College, ccollins@highlands.edu

Amanda West, Research Assistant, Office of Strategic Planning, Assessment, and Accreditation, Georgia Highlands College, awest@highlands.edu

Other supporting offices/divisions/faculty/staff: 10 science faculty members from among the Division of Natural Science and Physical Education, the Administrative Assistant for the Division of Natural Science and Physical Education

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

Greg Ford, Ph.D. Dean, Division of Natural Science and Physical Education, Georgia Highlands College, gford@highlands.edu

Proposal Title: 219

Course Names, Course Numbers, and Semesters Offered:

Introduction to Biology, BIOL 1010, offered fall, spring, and summer semesters of each academic year

General Zoology, BIOL 2154, offered fall, spring, and summer semesters of each academic year

These two courses constitute an AREA D science sequence required for all non-science majors graduating at Georgia Highlands College

Final Semester of Instruction (This is your final semester of the project): Spring 2017

Average Number of Students per Course Section: 24

Number of Course Sections Affected by Implementation in Academic Year: 30

Total Number of Students Affected by Implementation in Academic Year: 720

List the original course materials for students (including title, whether optional or required, & cost for each item): Currently REQUIRED textbook: Campbell Biology: Concepts and Connections (w/MasteringBiology Access Code) by Reece et al.; 8th edition; ISBN: 9780321885173. Current GHC Bookstore Price: \$230
Currently REQUIRED lab manual: Biology Laboratory Manual by Sylvia Mader; 14th edition; ISBN: 9780077479718. Current GHC Bookstore Price: \$131

Proposal Categories: No-Cost-to-Students Learning Materials

Requested Amount of Funding: \$30,000

Original per Student Cost: \$361

Post-Proposal Projected Student Cost: \$0

Projected Per Student Savings: Per individual student \$361 (100%)

Plan for Hosting Materials: LibGuides

Project Goals:

The cost of college textbooks has risen over 1000% in the last 37 years with only five publishers currently controlling 85% of the market (NBC News, 2015). The cost of these materials has risen three times more than the rate of since 1978 - far outpacing medical expenses and home prices (Bureau of Labor Statistics 2015). Such figures have prompted the inclusion of textbook provisions in two acts to the US Congress: the Higher Education Opportunity Act in 2008 and the Affordable College Textbook Act in 2013 and 2015 (Scholarly Publishing and Academic Resources Coalition, 2015). Exorbitantly high textbook prices have also negatively impacted various aspects of college enrollment as documented in 2014 by the U.S. Public Interest Group report: *Fixing the Broken Textbook Market* (U.S. Public Interest Research Group, 2014). 65% of students surveyed by this group chose not to purchase a textbook for at least one class even though 94% of them believed this choice would harm their grade. Moreover, nearly half the students stated that textbook prices directly impacted their decision regarding the number and type of courses in which they enrolled. There is a great need to remove the barriers that students face in pursuing higher education particularly in the STEM courses.

How this problem impacts northwest Georgia college students. Socioeconomic status is a major indicator in the successful attainment of postsecondary education (National Center for Education Statistics, 2015). This statement does not bode well for Northwest Georgia, which is characterized by a large number of families (14.4%) living below poverty level (U.S. Department of Commerce – American Community Survey, 2014). Even before they can dream of college, it has also been well-documented that K-12 students -- specifically in northwest Georgia -- have lower access to books than students in other parts of the state due to local school system budget cuts (The Atlantic, 2014; Georgia Budget and Policy Institute, 2013, 2014; Atlanta Journal and Constitution, 2013; Ledger-Inquirer, 2015). With the above in mind, participation by Georgia Highlands College (GHC) in ALG will make post-secondary education more affordable and accessible to economically disadvantaged individuals who might not otherwise consider pursuit of a college education. Lower textbook prices will also contribute to student retention, progression and graduation, which aligns with GHC's mission to serve northwest Georgia students. Our goal is to redesign, and provide Open Educational Resources (OERs) for BIOL 1010 (Introduction to Biology) and BIOL 2154 (General Zoology), which are offered every semester (fall, spring, summer) of the academic year and use the same textbook and lab manual. This two-course sequence is one of several options students can choose to complete the AREA D science requirements for all non-major Transfer programs. Historically,

the majority of students enrolled at GHC have taken the 1010/2154 sequence over other options. Thus, the redesign of these courses and the inclusion of OERs will impact about 10% of our student population every academic year. This is important because the combined incidence of low final grades and withdrawals (drop/fail/withdraw or DWF rates) in BIOL 1010 and BIOL 2154 is high (23% in spring 2015).

Our project goals are to:

- Identify and adopt appropriate Open Educational Resources (OER) to best compliment student learning outcomes for BIOL 1010 and BIOL 2154.
- Generate new OERs, if appropriate OERs are not currently available, and make them freely-accessible using LibGuides (see below)
- Redesign all course materials (including course objectives and student learning outcomes) for BIOL 1010 and BIOL 2154 using the OER framework and available OER ancillary materials (images, tables, test banks, etc.).
- Survey students enrolled in the redesigned courses and faculty who teach them to assess adopted OERs with regard to 1) convenience and ease-of-use, 2) effectiveness and quality, and 3) attainment of student learning outcomes.
- Improve student grades in BIOL 1010 and 2154 and reduce drop/fail/withdraw rates for BIOL 1010

Statement of Transformation:

Georgia Highlands College (GHC) is a limited four-year college in the University System of Georgia that serves more than 5300 students in northwest Georgia and Northeast Alabama. GHC offers transfer associate degree programs, career associate degree programs, and targeted baccalaureate degree programs as well as instruction on five campuses, which provides the opportunity to develop, implement and compare new teaching materials and pedagogies across campuses. Projects initiated on one campus can and will be replicated and expanded across campuses to prove scalability. Furthermore, we will be implementing this project in courses taught in all formats including face-to-face, online, and hybrid formats.

Mean annual income in the geographic areas served by GHC is about \$60,825 (U.S. Department of Commerce – American Community Survey, 2014). According to the 2014-2015 Georgia Highlands College Fact Book the average student at GHC is a 23.9 year-old female. Furthermore, approximately 45.4% of GHC students are eligible for Pell Grant and many of our students have fulltime jobs in addition to undertaking a full course load (at least 12 hours). Currently, the cost of the textbook and lab manual for the 1010/2154 course sequence is about \$360 through our campus bookstore. Adoption of open source materials will provide every student access to all course materials at no charge. We expect this to reduce the incidence of DWFs in future OER-supplied BIOL 1010/2154 courses compared to past BIOL 1010/2154 courses that used traditional texts.

All course materials will be stored within a master course on GHC's learning management system, currently Brightspace by D2L (<http://www.brightspace.com>), as well as in the LibGuides by SpringShare (<http://springshare.com/libguides>) – the content management

system used by thousands of libraries worldwide. Consequently, any student enrolled in BIOL 1010 or 2154 and any faculty teaching at GHC, within the USG, or across the country will have 24-hour-access to our OERs and their ancillary materials.

Transformation Action Plan:

Tom Harnden: Principle Investigator; will oversee project from start to finish including: submission of ALG transformation proposal, identification and adoption of appropriate OERs, development of related course materials; administration of surveys and data collection, and creation of project final report.

Andrew Dawson: Curriculum expert; will work with science and library faculty to identify, review, select, and adopt appropriate OERs for both BIOL 1010 and BIOL 2154. Develop summer workshop to train teaching faculty in use of OERs and ancillary materials.

Sharryse Henderson: Curriculum expert; will develop master syllabi and instructional materials necessary for BIOL 1010 course transformation. Will also create master course for BIOL 1010 within Desire2Learn.

Jason Christian: Curriculum expert; will develop master syllabi and instructional materials necessary for BIOL 2154 course transformation. Will also create master course for BIOL 2154 within Desire2Learn.

Christin Collins: Library support staff; will collaborate with team members to identify and adopt OERs and make OER materials created during this project freely accessible on LibGuides.

Amanda West: Research assistant; will provide past DFW data for BIOL 1010 and BIOL 2154 courses, compile/analyze data from student and faculty surveys, and provide DFW rates in transformed BIOL 1010 and BIOL 2154 courses.

10 Science Faculty: will take part in summer training workshop; teach BIOL 1010 or 2154 sections using adopted and/or created OERs; participate in faculty surveys.

Quantitative & Qualitative Measures: Both quantitative and qualitative methods will be used to measure and gauge the success of our transition from the use of traditionally-available to OER materials. Quantitative methods will consist of pre- and post-course surveys that measure the number of students who use the textbook, the frequency in which they access the textbook, the ways in which they use the textbooks, and reasons they accessed the textbook. Similarly, pre- and post-course surveys will quantify faculty use of, and any problems associated with, the open source textbooks and their ancillary materials. Faculty will also be asked to provide detailed qualitative critiques of the new materials adopted for each course. A mandatory discussion forum on D2L will also be devised to elicit additional qualitative feedback from students with regard to ease of material access and use -- including text design, quality and readability, and appropriateness of ancillary materials. Students will also be asked to compare their experiences in the redesigned course compared to classes using traditional texts. Data on DFW rates from the past three years in BIOL 1010 and BIOL 2154 (when traditional texts were used) will be compared to DFW rates for the courses that use the redesigned OER materials. All data will be compiled, analyzed and presented in a project report.

Timeline:

January 11th 2016 – May 31st 2016

- Submit Service Level Agreement (SLA) to University System Office
- Invoice USG
- Identify open source text and accompanying resources (e.g., short films, web-based resources, interactive exercises, etc.)
- Develop pre- and post-course surveys for faculty and students
- Develop question guide for D2L discussion (see above)

June 1st 2016 – August 1st 2016

- Assess course learning objectives (CLOs) with reference to new text adoption and resources
- Finalize surveys and methodology to analyze surveys

- Finalize question guide for D2L discussion
- Create D2L master course shell for all sections and include CLOs, open source textbook and resource materials, and surveys and discussion
- Conduct workshops to train teaching faculty in the use of selected open source materials

August 15th 2016 – November 30th 2016

- Conduct fall semester course with open source text, surveys, and D2L discussion

December 1st 2016 – January 15th 2017

- Compile and analyze Fall 2016 data
- Revise surveys and discussion, if necessary
- Revise D2L master course shell, if necessary

January 16th 2017 – April 30th 2017

- Conduct spring semester course with revised open source text, surveys, and D2L discussion

May 1st 2017 – May 30th 2017

- Compile and analyze Spring 2017 data
- Compare Fall 2016 data with Spring 2017 data
- Generate final report summarizing study findings

Budget:

We are requesting the second level of funding appropriate for multiple-sections /courses/department-wide funding (\$30,000) to be used as follows:

Release Time for Project Team Members: \$20,000

Dr. Tom Harnden, Professor and Principal Investigator: \$5000

Sharryse Henderson, Associate Professor: \$5000

Andrew Dawson, Associate Professor: \$5000

Jason Christian, Laboratory Coordinator: \$5000

Library support: \$3600

Christin Collins, Assistant Librarian for Public Services

Office of Institutional Research support: \$3600

Amanda West, Research Assistant

Summer Workshop to Train Full-time and Part-time Teaching Faculty: \$2000

Release Time for Full-Time Faculty

Dr. Mark Knauss: \$200

Dr. Merry Clark: \$200

Dr. Jackie Belwood: \$200

Lisa Branson: \$200

Devan Rediger: \$200

Release Time for Part-time Faculty

Banhi Nandi: \$200

Clint Helms: \$200

Dr. Robert Young: \$200

Shanika Wells: \$200

Kimberly Subacz: \$200

Travel for Team members to attend Grant Kick-Off Meeting: \$800

Dr. Tom Harnden, Professor and Principal Investigator: \$400

Sharryse Henderson, Associate Professor: \$400

Sustainability Plan:

To ensure sustainability, we will review and update all generated course materials in the master course templates three times a year (August, January, and May). We will also regularly review external links to online materials to ensure they are all still active. Outdated materials/information will be replaced and appropriate new material added, as needed. This maintenance process is vitally important to ensure the most up-to-date offerings. Once this project is completed, we will use the templates and methodologies created to redesign several other courses that satisfy the Area D science sequence requirement -- specifically, BIOL 2153 (General Botany), BIOL 2152 (Introduction to Field Studies), and BIOL 2190 (Principles of Nutrition).



1.1 REFERENCES & ATTACHMENTS

Atlanta Journal and Constitution (MyAJC, 2013): Cobb Math Teachers Fret Over Lack of Textbooks
<http://www.myajc.com/news/news/local-education/cobb-math-teachers-fret-over-lack-of-textbooks/nX8Bc/>

Bureau of Labor Statistics (BLS, 2015): Consumer Price Index News Release
<http://www.bls.gov/news.release/cpi.htm>

Georgia Budget and Policy Institute (GBPI, 2013): Cutting Class to Make Ends Meet
<http://gbpi.org/wp-content/uploads/2013/11/Cutting-Class-to-Make-Ends-Meet-Final.pdf>

Georgia Budget and Policy Institute (GBPI, 2014): Cutting Class to Make Ends Meet
<http://gbpi.org/wp-content/uploads/2014/10/Cutting-Class-to-Make-Ends-Meet-Report-Final2.pdf>

Georgia Department of Education School System Financial Reports (2015)
Data compiled for the following Northwest GA Counties: Bartow, Carroll, Chattooga, Cobb, Douglas, Floyd, Gordon, Paulding, and Polk.

https://app3.doe.k12.ga.us/ows-bin/owa/fin_pack_revenue.entry_form

Georgia Highlands College Fact Book: Academic Year 2014-2015
<https://www.highlands.edu/inc/files/userfiles/31-cbac5ca5b0647bc-2014-2015GHCFactBook-DRAFTwithhyperlinks.pdf>

Ledge-Inquirer (2015): In Heated Emails, MCSD Board Debates Whether District Has Textbook Shortage
<http://www.ledger-enquirer.com/news/local/article29446093.html>

Ledge-Inquirer (2015): Textbooks: Center of Debate but No Longer Center of Classroom
<http://www.ledger-enquirer.com/news/local/article29456227.html>

NBC News (2015): College Textbook Prices Have Risen 1041% since 1977
<http://www.nbcnews.com/feature/freshman-year/college-textbook-prices-have-risen-812-percent-1978-n399926>

National Center for Education Statistics (NCES, 2015): Postsecondary Attainment: Differences by Socioeconomic Status
http://nces.ed.gov/programs/coe/indicator_tva.asp

Scholarly Publishing and Academic Resources Coalition (SPARC, 2015): Support the Affordable College Textbook Act
<http://www.sparc.arl.org/advocacy/national/act>

THE ATLANTIC (2014): Why Poor Schools Can't Win at Standardized Testing
<http://www.theatlantic.com/education/archive/2014/07/why-poor-schools-cant-win-at-standardized-testing/374287/>

U.S. Department of Commerce American Community Survey (2014)
Data from the following Northwest GA Counties: Bartow, Carroll, Chattooga, Cobb, Douglas, Floyd, Gordon, Paulding, and Polk.
<https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/>

U.S. Public Interest Research Group (USPIRG, 2014): Fixing the Broken Textbook Market
<http://www.uspirg.org/sites/pirg/files/reports/NATIONAL%20Fixing%20Broken%20Textbooks%20Report1.pdf>

December 15, 2015

To The ALG Transformation Grant Administrator,

I am Dr. Renva Watterson, Vice President for Academic Affairs at Georgia Highlands College. I am writing in support of Tom Harnden's Affordable Learning Georgia Textbook Transformation Grants entitled "ALG Textbook Transformation Project to adopt and/or create an Open Educational Resource for an Area D science sequence, Introductory Biology (BIOL 1010) and General Zoology (BIOL 2154), at Georgia Highlands College".

Georgia Highlands College (GHC) is a limited four-year college within the University System of Georgia that serves Northwest Georgia and Northeast Alabama. Specifically, BIOL 1010 and BIOL 2154 constitute a science sequence that satisfies AREA D core curriculum science requirements in the University System and the Technical College System of Georgia. GHC has five campuses that provide instruction which allows for a unique opportunity to develop and implement new teaching materials and pedagogy for comparison of student data across campuses. This multi-site configuration also provides an opportunity to replicate and expand projects across campuses to prove scalability.

Tom Harnden, Ed.D. is a Professor of Biology in the Division of Natural Science and Physical Education. Tom, along with the team he has assembled, is well suited to full-fill the goals of this grant. The division has already worked to transform courses and has reported significant savings for our students and therefore, with the support of my office, this program will be sustained and expanded sequentially.

Sincerely,

Dr. Renva Watterson,
Vice President of Academic Affairs
Georgia Highlands College

[Proposal No.] 1 [Publish Date]

Affordable Learning Georgia Textbook Transformation Grants
Rounds Three, Four, and Five
For Implementations Beginning Summer Semester 2015
Running Through Spring Semester 2017

Proposal Form and Narrative

Submitter Name Renna Watterson, Ph.D. Submitter Title Vice President of Academic Affairs
Submitter Email rwatters@highlands.edu Submitter Phone Number 706-802-5814
Submitter Campus Role Vice President of Academic Affairs Applicant Name Thomas Harnden, Ph.D.
Applicant Email tharnden@highlands.edu Applicant Phone Number 678-872-8070
Primary Appointment Title Professor of Biology Institution Name(s) Georgia Highlands College
Team Members
Andrew Dawson, Associate Professor of Biology, Division of Natural Science and Physical Education,
Georgia Highlands College, adawson@highlands.edu
Sharryse Henderson, Associate Professor of Biology, Division of Natural Science and Physical Education,
Georgia Highlands College, shenders@highlands.edu
Jason Christian, Science Laboratory Coordinator, Division of Natural Science and Physical Education,
Georgia Highlands College, jachrist@highlands.edu

Christin Collins, Assistant Librarian of Public Services, Paulding Campus Library, Georgia Highlands College, ccollins@highlands.edu

Other supporting offices/divisions/faculty/staff: GHC Office of Institutional Research, and 10 additional science faculty from the Division of Natural Sciences and Physical Education. Sponsor, Title, Department, Institution Greg Ford, Ph.D., Dean, Division of Natural Science and Physical Education, Georgia Highlands College, gford@highlands.edu
Proposal Title ALG Textbook Transformation Project to adopt and/or create an Open Educational Resource for an Area D science sequence, Introductory Biology (BIOL 1010) and General Zoology (BIOL 2154), at Georgia Highlands College
Course Names, Course Numbers and Semesters Offered BIOL 1010 - Introduction to Biology and BIOL 2154 - General Zoology. Both courses are intended for non-science majors and satisfy the AREA D science sequence requirements. Both are offered in fall, spring, and summer semesters. Project will Spring 2016 and conclude Spring 2017.
Final Semester of Instruction Spring 2017
Average Number of Students Per Course Section 24
Number of Course Sections Affected by Implementation in Academic Year 30
Total Number of Students Affected by Implementation in Academic Year 720
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 per item)
CURRENTLY REQUIRED TEXTBOOK AND LAB MANUAL:
Campbell Biology: Concepts and Connections (w/MasteringBiology ACCESS CODE) by Reece et al.; 8th edition; ISBN: 9780321885173. Current GHC Bookstore Price: \$230.
Biology Laboratory Manual by Sylvia Mader; 14th edition ISBN: 9780077479718. Current GHC Bookstore Price: \$131. Current Per Student Cost \$361
Post-Proposal Projected Per Student Cost \$0
Projected Per Student Savings Per individual student: \$361 (100%)

All students combined per academic year: \$259,920
Plan for Hosting Materials?
OpenStax CNX
? D2L
? LibGuides
? Other _____

Note: Materials created in a grant project, excluding instructor-only tests and quizzes, must be made freely-accessible to the public, preferably under a Creative Commons open license.
Requested Amount of Funding \$30,000

NARRATIVE

1.1 PROJECT GOALS

The cost of college textbooks has risen over 1000% in the last 37 years with only five publishers currently controlling 85% of the market (NBC News, 2015). The cost of these materials has risen three times more than the rate of since

1978 - far outpacing medical expenses and home prices (Bureau of Labor Statistics 2015). Such figures have prompted the inclusion of textbook provisions in two acts to the US Congress: the Higher Education Opportunity Act in 2008 and the Affordable College Textbook Act in 2013 and 2015 (Scholarly Publishing and Academic Resources Coalition, 2015). Exorbitantly high textbook prices have also negatively impacted various aspects of college enrollment as documented in 2014 by the U.S. Public Interest Group report: Fixing the Broken Textbook Market (U.S. Public Interest Research Group, 2014). 65% of students surveyed by this group chose not to purchase a textbook for at least one class even though 94% of them believed this choice would harm their grade. Moreover, nearly half the students stated that textbook prices directly impacted their decision regarding the number and type of courses in which they enrolled. There is a great need to remove the barriers that students face in pursuing higher education particularly in the STEM courses.

How this problem impacts northwest Georgia college students. Socioeconomic status is a major indicator in the successful attainment of postsecondary education (National Center for Education Statistics, 2015). This statement does not bode well for Northwest Georgia, which is characterized by a large number of families (14.4%) living below poverty level (U.S. Department of Commerce American Community Survey, 2014). Even before they can dream of college, it has also been well-documented that K-12 students -- specifically in northwest Georgia -- have lower access to books than students in other parts of the state due to local school system budget cuts (The Atlantic, 2014; Georgia Budget and Policy Institute, 2013, 2014; Atlanta Journal and Constitution, 2013; Ledger-Inquirer, 2015). With the above in mind, participation by Georgia Highlands College (GHC) in ALG will make post-secondary education more affordable and accessible to economically disadvantaged individuals who might not otherwise consider pursuit of a college education. Lower textbook prices will also contribute to student retention, progression and graduation, which aligns with GHC's mission to serve northwest Georgia students. Our goal is to redesign, and provide Open Educational Resources (OERs) for BIOL 1010 (Introduction to Biology) and BIOL 2154 (General Zoology), which are offered every semester (fall, spring, summer) of the academic year and use the same textbook and lab manual. This two-course sequence is one of several options students can choose to complete the AREA D science requirements for all non-major Transfer programs. Historically, the majority of students enrolled at GHC have taken the 1010/2154 sequence over other options. Thus, the redesign of these courses and the inclusion of OERs will impact about 10% of our student population every academic year. This is important because the combined incidence of low final grades and withdrawals (drop/fail/withdraw or DWF rates) in BIOL 1010 and BIOL 2154 is high (23% in spring 2015).

Our project goals are to:

- * Identify and adopt appropriate Open Educational Resources (OER) to best compliment student learning outcomes for BIOL 1010 and BIOL 2154.
- * Generate new OERs, if appropriate OERs are not currently available, and make them freely-accessible using LibGuides (see below)
- * Redesign all course materials (including course objectives and student learning outcomes) for BIOL 1010 and BIOL 2154 using the OER framework and available OER ancillary materials (images, tables, test banks, etc.).
- * Survey students enrolled in the redesigned courses and faculty who teach them to assess adopted OERs with regard to 1) convenience and ease-of-use, 2) effectiveness and quality, and 3) attainment of student learning outcomes.
- * Improve student grades in BIOL 1010 and 2154 and reduce drop/fail/withdraw rates for BIOL 1010

1.2 STATEMENT OF TRANSFORMATION

Georgia Highlands College (GHC) is a limited four-year college in the University System of Georgia that serves more than 5300 students in northwest Georgia and Northeast Alabama. GHC offers transfer associate degree programs, career associate degree programs, and targeted baccalaureate degree programs as well as instruction on five campuses, which provides the opportunity to develop, implement and compare new teaching materials and pedagogies across campuses. Projects initiated on one campus can and will be replicated and expanded across

campuses to prove scalability. Furthermore, we will be implementing this project in courses taught in all formats including face-to-face, online, and hybrid formats.

Mean annual income in the geographic areas served by GHC is about \$60,825 (U.S. Department of Commerce ♦ American Community Survey, 2014). According to the 2014-2015 Georgia Highlands College Fact Book the average student at GHC is a 23.9 year-old female. Furthermore, approximately 45.4% of GHC students are eligible for Pell Grant and many of our students have fulltime jobs in addition to undertaking a full course load (at least 12 hours). Currently, the cost of the textbook and lab manual for the 1010/2154 course sequence is about \$360 through our campus bookstore. Adoption of open source materials will provide every student access to all course materials at no charge. We expect this to reduce the incidence of DWFs in future OER-supplied BIOL 1010/2154 courses compared to past BIOL 1010/2154 courses that used traditional texts.

All course materials will be stored within a master course on GHC♦s learning management system, currently Brightspace by D2L (<http://www.brightspace.com>), as well as in the LibGuides by SpringShare (<http://springshare.com/libguides>) ♦ the content management system used by thousands of libraries worldwide. Consequently, any student enrolled in BIOL 1010 or 2154 and any faculty teaching at GHC, within the USG, or across the country will have 24-hour-access to our OERs and their ancillary materials.

1.3 TRANSFORMATION ACTION PLAN

* Tom Harnden: Principle Investigator; will oversee project from start to finish including: submission of ALG transformation proposal, identification and adoption of appropriate OERs, development of related course materials; administration of surveys and data collection, and creation of project final report.

* Andrew Dawson: Curriculum expert; will work with science and library faculty to identify, review, select, and adopt appropriate OERs for both BIOL 1010 and BIOL 2154. Develop summer workshop to train teaching faculty in use of OERs and ancillary materials.

* Sharryse Henderson: Curriculum expert; will develop master syllabi and instructional materials necessary for BIOL 1010 course transformation. Will also create master course for BIOL 1010 within Desire2Learn.

* Jason Christian: Curriculum expert; will develop master syllabi and instructional materials necessary for BIOL 2154 course transformation. Will also create master course for BIOL 2154 within Desire2Learn.

* Christin Collins: Library support staff; will collaborate with team members to identify and adopt OERs and make OER materials created during this project freely accessible on LibGuides.

* Amanda West: Research assistant; will provide past DFW data for BIOL 1010 and BIOL 2154 courses, compile/analyze data from student and faculty surveys, and provide DFW rates in transformed BIOL 1010 and BIOL 2154 courses.

* 10 Science Faculty: will take part in summer training workshop; teach BIOL 1010 or 2154 sections using adopted and/or created OERs; participate in faculty surveys.

1.4 QUANTITATIVE AND QUALITATIVE MEASURES

Both quantitative and qualitative methods will be used to measure and gauge the success of our transition from the use of traditionally-available to OER materials. Quantitative methods will consist of pre- and post-course surveys that measure the number of students who use the textbook, the frequency in which they access the textbook, the ways in which they use the textbooks, and reasons they accessed the textbook. Similarly, pre- and post-course surveys will quantify faculty use of, and any problems associated with, the open source textbooks and their ancillary materials. Faculty will also be asked to provide detailed qualitative critiques of the new materials adopted for each course. A mandatory discussion forum on D2L will also be devised to elicit additional qualitative feedback from students with regard to ease of material access and use -- including text design, quality and readability, and appropriateness of ancillary materials. Students will also be asked to compare their experiences in

the redesigned course compared to classes using traditional texts. Data on DFW rates from the past three years in BIOL 1010 and BIOL 2154 (when traditional texts were used) will be compared to DFW rates for the courses that use the redesigned OER materials. All data will be compiled, analyzed and presented in a project report.

1.5 TIMELINE

January 11th 2016 ♦ May 31st 2016* Submit Service Level Agreement (SLA) to University System Office

* Invoice USG

* Identify open source text and accompanying resources (e.g., short films, web-based resources, interactive exercises, etc.)

* Develop pre- and post-course surveys for faculty and students

* Develop question guide for D2L discussion (see above) June 1st 2016 ♦ August

1st 2016* Assess course learning objectives (CLOs) with reference to new text adoption and resources

* Finalize surveys and methodology to analyze surveys

* Finalize question guide for D2L discussion

* Create D2L master course shell for all sections and include CLOs, open source textbook and resource materials, and surveys and discussion

* Conduct workshops to train teaching faculty in the use of selected open source materials August 15th 2016 ♦ November 30th 2016* Conduct fall semester course

with open source text, surveys, and D2L discussion December 1st 2016 ♦

January 15th 2017* Compile and analyze Fall 2016 data

* Revise surveys and discussion, if necessary

* Revise D2L master course shell, if necessary January 16th 2017 ♦ April 30th

2017 * Conduct spring semester course with revised open source text, surveys, and D2L discussion May 1st 2017 ♦

May 30th 2017* Compile and analyze Spring 2017 data

* Compare Fall 2016 data with Spring 2017 data

* Generate final report summarizing study findings

1.6 BUDGET

We are requesting the second level of funding appropriate for multiple-sections /courses/department-wide funding (\$30,000) to be used as follows:

Release Time for Project Team Members: \$20,000

Dr. Tom Harnden, Professor and Principal Investigator: \$5000

Sharryse Henderson, Associate Professor: \$5000

Andrew Dawson, Associate Professor: \$5000

Jason Christian, Laboratory Coordinator: \$5000

Library support: \$3600

Christin Collins, Assistant Librarian for Public Services

Office of Institutional Research support: \$3600

Amanda West, Research Assistant

Summer Workshop to Train Full-time and Part-time Teaching Faculty: \$2000

Release Time for Full-Time Faculty

Dr. Mark Knauss: \$200

Dr. Merry Clark: \$200

Dr. Jackie Belwood: \$200

Lisa Branson: \$200

Devan Rediger: \$200

Release Time for Part-time Faculty

Banhi Nandi: \$200

Clint Helms: \$200

Dr. Robert Young: \$200

Shanika Wells: \$200

Kimberly Subacz: \$200

Travel for Team members to attend Grant Kick-Off Meeting: \$800

Dr. Tom Harnden, Professor and Principal Investigator: \$400

Sharryse Henderson, Associate Professor: \$400

1.7 SUSTAINABILITY PLAN

To ensure sustainability, we will review and update all generated course materials in the master course templates three times a year (August, January, and May). We will also regularly review external links to online materials to ensure they are all still active. Outdated materials/information will be replaced and appropriate new material added, as needed. This maintenance process is vitally important to ensure the most up-to-date offerings. Once this project is completed, we will use the templates and methodologies created to redesign several other courses that satisfy the Area D science sequence requirement -- specifically, BIOL 2153 (General Botany), BIOL 2152 (Introduction to Field Studies), and BIOL 2190 (Principles of Nutrition).

1.8 REFERENCES & ATTACHMENTS

Atlanta Journal and Constitution (MyAJC, 2013): Cobb Math Teachers Fret Over Lack of Textbooks

<http://www.myajc.com/news/news/local-education/cobb-math-teachers-fret-over-lack-of-textbooks/nX8Bc/>

Bureau of Labor Statistics (BLS, 2015): Consumer Price Index News Release

<http://www.bls.gov/news.release/cpi.htm>

Georgia Budget and Policy Institute (GBPI, 2013): Cutting Class to Make Ends Meet

<http://gbpi.org/wp-content/uploads/2013/11/Cutting-Class-to-Make-Ends-Meet-Final.pdf>

Georgia Budget and Policy Institute (GBPI, 2014): Cutting Class to Make Ends Meet

<http://gbpi.org/wp-content/uploads/2014/10/Cutting-Class-to-Make-Ends-Meet-Report-Final2.pdf>

Georgia Department of Education ♦ School System Financial Reports (2015)
Data compiled for the following Northwest GA Counties: Bartow, Carroll, Chattooga, Cobb, Douglas, Floyd, Gordon, Paulding, and Polk.

https://app3.doe.k12.ga.us/ows-bin/owa/fin_pack_revenue.entry_form

Georgia Highlands College Fact Book: Academic Year 2014-2015

<https://www.highlands.edu/inc/files/userfiles/31-cbac5ca5b0647bc-2014-2015GHCFactBook-DRAFTwithhyperlinks.pdf>

Ledge-Inquirer (2015): In Heated Emails, MCSD Board Debates Whether District Has Textbook Shortage

<http://www.ledger-enquirer.com/news/local/article29446093.html>

Ledge-Inquirer (2015): Textbooks: Center of Debate but No Longer Center of Classroom

<http://www.ledger-enquirer.com/news/local/article29456227.html>

NBC News (2015): College Textbook Prices Have Risen 1041% since 1977

<http://www.nbcnews.com/feature/freshman-year/college-textbook-prices-have-risen-812-percent-1978-n399926>

National Center for Education Statistics (NCES, 2015): Postsecondary Attainment: Differences by Socioeconomic Status

http://nces.ed.gov/programs/coe/indicator_tva.asp

Scholarly Publishing and Academic Resources Coalition (SPARC, 2015): Support the Affordable College Textbook Act

<http://www.sparc.arl.org/advocacy/national/act>

THE ATLANTIC (2014): Why Poor Schools Can't Win at Standardized Testing

<http://www.theatlantic.com/education/archive/2014/07/why-poor-schools-cant-win-at-standardized-testing/374287/>

U.S. Department of Commerce ♦ American Community Survey (2014)
Data from the following Northwest GA Counties: Bartow, Carroll, Chattooga,
Cobb, Douglas, Floyd, Gordon, Paulding, and Polk.
<https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/>

U.S. Public Interest Research Group (USPIRG, 2014): Fixing the Broken Textbook
Market
<http://www.uspirg.org/sites/pirg/files/reports/NATIONAL%20Fixing%20Broken%20Textbooks%20Report1.pdf>

December 15, 2015

To The ALG Transformation Grant Administrator,

I am Dr. Renva Watterson, Vice President for Academic Affairs at Georgia Highlands College. I am writing in support of Tom Harnden's Affordable Learning Georgia Textbook Transformation Grants entitled ♦ALG Textbook Transformation Project to adopt and/or create an Open Educational Resource for an Area D science sequence, Introductory Biology (BIOL 1010) and General Zoology (BIOL 2154), at Georgia Highlands College♦.

Georgia Highlands College (GHC) is a limited four-year college within the University System of Georgia that serves Northwest Georgia and Northeast Alabama. Specifically, BIOL 1010 and BIOL 2154 constitute a science sequence that satisfies AREA D core curriculum science requirements in the University System and the Technical College System of Georgia. GHC has five campuses that provide instruction which allows for a unique opportunity to develop and implement new teaching materials and pedagogy for comparison of student data across campuses. This multi-site configuration also provides an opportunity to replicate and expand projects across campuses to prove scalability.

Tom Harnden, Ed.D. is a Professor of Biology in the Division of Natural Science and Physical Education. Tom, along with the team he has assembled, is well suited to full-fill the goals of this grant. The division has already worked to transform courses and has reported significant savings for our students and therefore, with the support of my office, this program will be sustained and expanded sequentially.

Sincerely,

Dr. Renva Watterson,
Vice President of Academic Affairs
Georgia Highlands College

[Proposal No.] 9 [Publish Date]