

Spring 2018

Plants, Society, and the Environment

Thomas Harnden

Georgia Highlands College, tharnden@highlands.edu

Katie Bridges

Georgia Highlands College, kbridges@highlands.edu

Follow this and additional works at: <https://oer.galileo.usg.edu/biology-collections>



Part of the [Biology Commons](#), and the [Plant Sciences Commons](#)

Recommended Citation

Harnden, Thomas and Bridges, Katie, "Plants, Society, and the Environment" (2018). *Biological Sciences Grants Collections*. 16.
<https://oer.galileo.usg.edu/biology-collections/16>

This Grants Collection is brought to you for free and open access by the Biological Sciences at GALILEO Open Learning Materials. It has been accepted for inclusion in Biological Sciences Grants Collections by an authorized administrator of GALILEO Open Learning Materials. For more information, please contact affordablelearninggeorgia@usg.edu.

Grants Collection

Georgia Highlands College



UNIVERSITY SYSTEM
OF GEORGIA

Thomas Harnden and Katie Bridges

Plants, Society, and the Environment





Grants Collection

Affordable Learning Georgia Grants Collections are intended to provide faculty with the frameworks to quickly implement or revise the same materials as a Textbook Transformation Grants team, along with the aims and lessons learned from project teams during the implementation process.

Each collection contains the following materials:

- **Linked Syllabus**
 - The syllabus should provide the framework for both direct implementation of the grant team's selected and created materials and the adaptation/transformation of these materials.
- **Initial Proposal**
 - The initial proposal describes the grant project's aims in detail.
- **Final Report**
 - The final report describes the outcomes of the project and any lessons learned.



Unless otherwise indicated, all Grants Collection materials are licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Initial Proposal

Application Details

Manage Application: ALG Textbook Transformation Grants

Award Cycle: Round 6

Internal Submission Deadline: Monday, August 1, 2016

Application Title: 244

Application ID: #001136

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: 404-660-0881

Primary Appointment Title: Professor of Biology

Institution Name(s): Georgia Highlands College

Submission Date: Monday, August 1, 2016

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

Katie Bridges, Instructional Designer, Division of eLearning, kbridges@highlands.edu

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

Greg Ford, Ph.D., Dean of Natural Science and Physical Education, Georgia Highlands College

Proposal Title: 244

Course Names, Course Numbers and Semesters Offered:

BIOL 1020 Plants, Society, and the Environment

Final Semester of Instruction:	Spring 2017
Average Number of Students per Course Section:	30
Number of Course Sections Affected by Implementation in Academic Year:	6
Total Number of Students Affected by Implementation in Academic Year:	180
List the original course materials for students (including title, whether optional or required, & cost for each item):	PLants and Society, levetin and McMahan, 7th Edition, McGraw Hill, ISBN 9780078023033, \$222.33
Proposal Category:	No-or-Low-Cost to Students Learning Materials
Requested Amount of Funding:	10,800
Original per Student Cost:	222.33
Post-Proposal Projected Student Cost:	0
Projected Per Student Savings:	222.33
Projected Total Annual Student Savings:	40,019.40

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

All material will be located in a Lib-Guide specific for the class. It will be called "BIOL 1020 Plants, Society, and the Environment." Students will use D2L for the course and materials from the Lib-Guide will be embedded into D2L either directly or through the use hyperlinks.

Project Goals:

There are four primary goals related to this project:

Development of an *informational repository* in the form of a BIOL 1020 Lib-Guide containing free articles, electronic books, movies, animations, videos, newscasts, websites, and other educational resources - this repository will be used to create modules that support both science and course-specific learning objectives

Development of **course modules** that contain course-specific concepts using an inquiry based learning format that aligns with the course learning objectives - each modules will be designed to help students to develop and use analytical and critical lens regarding specific information situated in a contemporary society

Development of **innovative exercises** that use graphics, animations, and short videos - the diversity of exercises will aid students with various learning styles

Development of **sustainable framework** - a mandatory project referred to as a *Webquest* will be developed and implemented with a dual purpose of enabling a student to explore a unique course-related concept as well as use their references to continually expand the informational repository,

Statement of Transformation:

Describe the transformation

Resource transformation - rather than relying on a single course text, an informational repository of free resources materials will be identified and houses in a Lib-Guide

Course Transformation - the course will be concept-driven and module in nature rather than using a traditional chapter structure

Perspective transformation - students will explore various issues regarding plants and their role in today's society

Identify stakeholders affected by the transformation

Students - will save a minimum of \$222.33 or more if there was a loan associated with the purchase of a traditional text

Faculty - due to the modular nature of the course and the potential plethora of resources housed in one location, faculty at any institution can teach the course from various perspectives yet still satisfy the course-specific learning objectives

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

In comparison to a static text, over time the informational repository will continually expand and include a compilation of very diverse educational materials. Traditional texts, on the other hand, will increase text costs if they include small updates in newer editions. Therefore, the savings of as a result of this project will increase over time.

This project offers an increased opportunity for student-student and student-faculty collaboration. The framework of this project enables increased collaboration and supports the notion of "Learning through Action."

Module learning will help students for focus on specific concepts more effectively and will nurture both self-interest and self-direction.

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

In sum, this course will not only be cost effective but the informational repository will continually expand and enable any institution to teach the same course yet possibly offer a different lens or perspective regarding the concepts covered

Transformation Action Plan:

The identification, review, selection, and adoption/creation of the new course materials

The course contains eight overarching learning objectives, each are subdivided into a module containing 3-4 learning outcomes

The concepts in each module will be used to guide the adoption of resources for the informational repository

Biology faculty at Georgia Highlands College and at various colleges in the USG with a background in plant biology will be asked to review the informational repository regarding its depth and breadth of information and exercises as well as invite them to participate in adding more resources.

The course and syllabus instructional design/redesign necessary for the transformation

The course will be offered primarily online and the conceptual framework of the course will be translated into a distance-learning format

The Lib-guide for the course will be embedded in the course management system for easy access

The activities expected from each team member and their role(s): subject matter experts, instructional designer, librarian, instructor of record, et al.

Dr. Tom Harnden will serve as the SME, faculty of record, and Lib-Guide developer. Using the course learning objectives and module learning outcomes, he will gather various free resources that support those objectives and outcomes and organize them into a Lib-Guide Ms. Katie Bridges will serve as the instructional designer. Using her background in distance education and graphic design, she will not only help develop interactive activities but will aid in the course design and delivery.

The plan for providing open access to the new materials

The informational repository will be housed in a Lib-Guide that is accessible to all USG faculty and students.

Quantitative & Qualitative Measures: Quantitative measures A course assessment containing objective questions tied directly to learning objectives and outcomes will be designed and implemented There is an expectation set whereby 65% of the class will correctly answer each question on the course assessment Outcomes of the assessment will be used to inform the course design as well as update the informational repository Qualitative measures A survey containing probing subjective questions will be created so as to characterize a student's perspective regarding the use of the alternative educational resources as well as the modular nature of the course The survey will include questions focusing on the various formats of the educational resources used (e.g., text, graphics, movies, pictures, etc...) and their effectiveness Answers from the survey will help guide the redevelopment of the course and adoption of course materials

Timeline:

Fall 2016

August through October - Dr. Tom Harnden will search for all possible educational resources that will support the learning objectives and outcomes. It is expected that the resources will be in various formats to support the myriad and of learning styles. Additionally, the information will be organized to fit the modular structure of the course. Ms. Katie Bridges will search for programs that will help in the designing of graphs, animations, and videos for the creation of exercises.

September through November - Dr. Tom Harnden will construct the Lib-Guide for the course using specific tabs for each module of the course and contents in each tab will be organized according to specific concepts covered. Ms. Katie Bridges, in consultation with Dr. Tom Harnden, will start developing exercises for specific concepts covered in the course.

October through November - Dr. Tom Harnden will construct the master course shell as well as develop both the quantitative and qualitative surveys as well as the course assessment. Ms. Katie Bridges will organize the master course shell to Quality Matters (QM) standards, load exercises into the master course shell and convert both assessments into the specific course management system format.

Spring 2017

Two sections of BIOL 1020 will be offered

Data from the assessments and surveys will be collected

Summer 2017

One section of BIOL 1020 will be offered

Dr. Tom Harnden and Ms. Katie Bridges will analyze the data from the Spring 2017 (and Summer 2017, time permitting) surveys and assessment

The analysis will then be used to determine if any changes to the course framework needs to occur and if so, then those changes will be made prior to the next course offering in the Fall 2017

Fall 2017

Offer two sections of BIOL 1020 with any updates that were made

Collect and analyze the data from the course survey and assessment

Generate a final report summarizing the project's findings

Budget:

Dr. Tom Harnden, Professor of Biology - \$5,000 for project work and \$400 for travel

Ms. Katie Bridges, Instructional Designer, \$5,000 for project work and \$400 for travel

Sustainability Plan:

Dr. Tom Harnden will serve as faculty of record for BIOL 1020. In this role he will conduct an annual review of all aspects of the course including, but not limited to, the master course shell design and development, course Lib-Guide content and updates, and data collected from the course assessment and surveys. Furthermore, the intended Galileo WebQuest course project will help to continually expand the informational repository.

GEORGIA HIGHLANDS



COLLEGE

FLOYD CAMPUS
3175 Cedartown Highway
Rome, GA 30161

VICE PRESIDENT
FOR ACADEMIC AFFAIRS

July 27, 2016

Dear ALG Grant Decision-Makers:

It is my pleasure to write in support of Dr. Tom Harnden and Ms. Katie Bridges who seek funding to innovate a curriculum and benefit the students at Georgia Highlands College as they do it. The proposed project represents tremendous opportunity for heightened teaching and learning experiences, reduced or no-cost text materials, and engaging studies in a vital area of science education.

As you will read, this is a sound, thorough proposal rooted in instructional design transformation, open source materials application, and modular course development. The work will generate new best practices in the field of plant biology, excellent library guides for extended understanding, as well as creative exercises and mechanisms for welcome sustainability over time. In addition, we will be able to save each student over \$200 through open access to high-quality instructional materials, a significant difference for their already too-stretched college funds.

Please give this fine proposal your earnest consideration. At Georgia Highlands, we are so grateful for your backing of other worthwhile OER initiatives; I see this one as just as valuable and necessary to meet the dual mission of both access and success for our outstanding students.

Best regards,

Renva 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

Syllabus

**GEORGIA HIGHLANDS COLLEGE
PLANTS, SOCIETY, AND THE ENVIRONMENT
BIOLOGY 1020 CRN 80308 (3-0-3)**



COURSE INFORMATION:

SEMESTER/YEAR:	Fall 2017
LECTURE DAY/TIME:	Online
LAB DAY/TIME:	Online
CREDIT HOURS:	3 credit hours

INSTRUCTOR INFORMATION:

NAME:	Dr. Tom Harnden
TITLE:	Professor of Biology
OFFICE PHONE:	
EMAIL:	tharnden@highlands.edu
OFFICE LOCATION:	Virtual using web-conferencing
OFFICE HOURS:	Tuesdays and Thursdays 730am – 9:30am and 1-2pm Thursdays
FACULTY WEBPAGE	http://www2.highlands.edu/site/faculty-tom-harnden

COURSE DESCRIPTION:

Biology 1020K: Plants, Society and the Environment

(3-0-3) Prerequisites: Satisfactory placement scores in

ENGL 0989 and MATH 0987

OR ENGL 0989 and MATH 0989

This course explores the basic structure and function of plants; how they reproduce; their evolution and adaptation to unique ecosystems; the process of domesticating plants; and the sociocultural, economic, scientific and medical impacts of domesticating plants. This course is designed for non-science majors.

STUDENT LEARNING OUTCOMES FOR SCIENCE:

Georgia Highlands College Educational Effectiveness Goal for Science: Students will demonstrate knowledge of the fundamental concepts of at least one scientific discipline, and an understanding of the interplay between theory, experimentation, and observation undergirding those concepts.

Georgia Highlands College Student Learning Outcomes for Science: Students will demonstrate knowledge of the fundamental concepts of at least one scientific discipline, and an understanding of the interplay between theory and experimentation and observations undergirding those concepts.

1.	Students will demonstrate competency of one discipline in the sciences in terms of its informational content.
2.	Students will demonstrate competency of one discipline in the sciences in terms of its terminology.
3.	Students will demonstrate competency of one discipline in the sciences in terms of its commonly used units of measurement.
4.	Students will demonstrate the ability to operate basic instrumentation, gather data, analyze data, and generate conclusions in a laboratory or observational setting.
5.	Students will demonstrate the ability to apply discipline content to problem solving.

COURSE OBJECTIVES AND COMPETENCIES FOR BIOL 1010K:

COURSE LEARNING OUTCOMES :

Upon completion of this course, students should be able to:

Unit 1 – Plant structure and function – cells, tissues, and overall plant anatomy	<ul style="list-style-type: none">• List the various organelles of a plant cell and describe their function• List and describe the various components of plant tissue and tissue types• Describe the process of growth in plants• Recall the various plant structures and discuss their function
Unit 2 – Plant Physiology	<ul style="list-style-type: none">• Explain the process of photosynthesis as well as cell respiration and discuss how they are related to energy production in plants• Recall the necessary soil requirements, nutrients for plant growth, and describe what each are used for in plant growth and development• Explain the process of water movement into and throughout a plant
Unit 3 – History of Plant Evolution and Adaptation	<ul style="list-style-type: none">• Discuss the early development of terrestrial plants• Compare and contrast various evolutionary trends and adaptations in plants• Discuss the various reproductive strategies of plants• Describe basic taxonomic nomenclature as related to evolution of plants
Unit 4 – Biomes and Plant Diversity	<ul style="list-style-type: none">• List the various types of biomes and discuss the environmental factors that may affect plant growth• Discuss the possible strategies that plants may employ to survive in each biome• List various types of plants in each biome and how they may influence the environment
Unit 5 – Domestication of Plants	<ul style="list-style-type: none">• Summarize the early history of plant domestication and describe how this process impacted cultural development• Describe the various ways in which plants were domesticated and what specific plants were important in early agriculture• Discuss the consequences of plant domestication such as monoculture use (i.e., decrease biodiversity) and domestication syndrome and describe the importance of seed banks
Unit 6 – The impact of plant domestication on agrarian and industrialized civilizations	<ul style="list-style-type: none">• Discuss the characteristics of an early agrarian society• Explain how increasing food production created complex hierarchical social structures which, in turn, lead to economic disparities• Describe how an agrarian culture transitioned into an industrialized society and explain the impact in this shift.• Discuss modern agriculture practices and plant domestication
Unit 7 - Plants in science and medicine	<ul style="list-style-type: none">• List and discuss the various chemicals found in plants that are used in science and medicine• Explain what herbal medicine is and how it is regulated in the United States• List and discuss the various plants that are harmful and that can cause human disease, disorders and even death.
Unit 8 – Plants, Society, and the Environment	<ul style="list-style-type: none">• List and describe ways that agriculture has impacted society and the environment• Discuss alternative practices that lead to sustainability

LECTURE MATERIAL:

- **TEXT:** NONE – Students will access notes in the form of PowerPoints, websites, and video tutorials as well as the Libguide created for the course.
- **COURSE LIBGUIDE:** <http://getlibraryhelp.highlands.edu/biol1020> (you may have to log into Galileo)
- **D2L:** Course material, grades, and other aspects of the course will be housed in a course management system referred to as Desire2Learn or D2L. Students are responsible for obtaining their username and password. To log into Georgia View D2L, click on the following link: Georgia View D2L. Once you logged into Georgia View D2L you should see a list of links for courses that you are registered for the semester. If you do

not see a link for the course you are trying to enter, then contact the registrar's office. If you do see the course link, then click on it and you will be directed to the course main page.

TECHNICAL HELP:

- If you have trouble accessing the course or any other technical issues associated with **Georgia View D2L** then please click on the following link and contact Vista technical help: <https://d2lhelp.view.usg.edu/>
- If you have trouble with **Respondus Lockdown Browser with Monitor**, then please click on the following link and contact Respondus technical help: <http://support.respondus.com/support/>
- If you need to contact a **specific department at GHC** (e.g. eLearning), then you can click on <http://www.highlands.edu/site/ghc411>

TECHNICAL REQUIREMENTS:

- Students must have access to a browser that enables D2L to be fully functional as well as Respondus
- In order to access D2L and have the Respondus Lock Down Browser work on personal computers/electronic media that computer/electronic device must have the following:
 - Windows: 8, 7, Vista, XP
 - Mac: OS X 10.6 or higher
 - Internet Explorer (Windows) or Safari (Mac) must function properly on the computer
 - Adobe Flash Player
 - Web camera (internal or external) & microphone
 - A broadband internet connection
- If you have any technical issues then contact the specific technical help using the information above

OFFICE HOURS AND SCHEDULING APPOINTMENTS:

Scheduling Appointments: In order to insure that a student see Dr. Harnden during his office hours, a student must log on WASS (Web appointment scheduling system) and set up an appointment. Students may drop in during Dr. Harnden's office hours without an appointment. However, if he has a scheduled appointment, meeting or other obligations, then he may not be free to speak to a student.

NOTE: (1) Students must log in as a Guest not a GHC member! Search using the instructor's last name, (2) Appointments should be made no less than 48 hours before the time and date of that appointment, (3) Make only ONE appointment at a time - any more will be cancelled, (4) Students must give a minimum of 24 hour notice to cancel an appointment or risk losing office hour privileges, and (5) Students who make an appointment and do not show up nor provide a reasonable and verifiable excuse for the absence will lose office hour privileges. [Link to Scheduling System](#) or go to <https://wass.highlands.edu/pages/login.page.php>

EXTENDED ABSENCE POLICY:

Students, who have circumstances that prevent them from continuing to attend classes over an extended period of time, sometimes request that the faculty member permit them to submit work in absentia to receive credit to complete the course. If the concurrent absences will constitute more than 15% of the class sessions for the term, then written permission from the Division Chair is required before any course assignments can be completed while missing class. The student must be in good academic standing in the course to make the request. All approved coursework must be completed by the end of the semester in which the course was begun. (Note: If a program has a more stringent absence policy than this, then the program policy prevails.)

INCLEMENT WEATHER POLICY:

In the event of weather related cancellation of classes, the schedule will pick up the sequence of lectures herein described as classes resume. The semester may then be extended, or double lectures designed as we go. If we have covered all material for a test, the test will be given on the first day back to class. If there is inclement weather, the college posts necessary announcements on www.highlands.edu. Cancellation notices for Floyd or Cartersville locations will be reported to radio stations and WXIA-TV in Atlanta. However, please be advised that station regulations may not

allow for clarity in location-specific announcements such as “Georgia Highlands, Cartersville only.” Generally speaking, stations simply broadcast something like “Georgia Highlands is closed.” Classes in Paulding, Douglasville, or Marietta will be cancelled when, respectively, North Metro Technical College, University of West Georgia, or Kennesaw State University close. Policies for distance-learning courses relative to inclement weather are different. It is assumed that all distance-learning courses are considered accessible even during periods of inclement weather.

HB 280 Campus Carry Information: <https://www2.highlands.edu/site/faculty-tharnden-hb280>

Please access the website and fully read the guidelines regarding campus carry.

EVALUATION METHODS and GRADING:

GRADE ITEM	POINTS POSSIBLE	POINTS EARNED	% OF COURSE GRADE
Quizzes (one for each of the eight units)	5 per unit, for a total of 40 points		40%
Threaded discussions (one for each of the eight units)	2 per unit, for a total of 16 points		16%
Padlet Assignments (one for each of the eight units)	2 per unit, for a total of 16 points		16%
Piktochart Assignments (one for each of the eight units)	2 per unit, for a total of 16 points		16%
Libguide Project (one course project)	12 points total		12%
Total	100 points		100%

DESCRIPTION OF COURSE GRADES:

Quizzes: There will be eight announced quizzes during the semester. Each quiz of the eight will be valued at 5 points, for a total of 40 possible points. A typical quiz contains 20-40 questions but may be in any format including but not limited to: multiple-choice, true/false, matching, etc. Quiz dates are listed below in the course schedule. All students should avoid personal conflicts on anticipated exam dates. The instructor reserves the right to change exam dates as needed and will give notice of any changes in the exam schedule as soon as it’s possible.

Class Participation: The class participation grade is based on the participation in eight threaded discussions in D2L , each discussion valued at points for a total of 16 possible points.

Using Georgia View D2L, students will participate in eight threaded discussions. Dialog is asynchronous and students will participate in each discussion by "posting" a response to questions or comments posed to the class. There will be several threaded discussion topics related to material covered during the semester. Please be sure to use proper netiquette (if you don’t know proper netiquette, then do a internet search on this subject). Lastly, students will be graded based on the **frequency** and quality of **participation:**

Frequency: Students must participate or "post" a **MINIMUM OF TWO** times in EACH threaded discussion forum (also known as discussion topics). There will be **8 threaded discussions, each worth 2 points, for a total of 16 points for class participation!** Click on the discussions link in D2L to participate. NOTE:

- A student cannot post all of their posts on one day nor can a student post all their posts on the first two or last two days of a threaded discussion time frame.
- There must be **ONE ENTIRE CALENDAR DAY** of no posting in between posts in a threaded discussion. **For example,** if you post on a Sunday you wait until Tuesday or Wednesday before posting again. The waiting time frame is a calendar day NOT a 24-

hour time frame! Therefore, a student should never have two or more consecutive days of participation. This enables everyone to have fair chance of contributing to each discussion.

- Posting more than two times increases the chance of getting full credit for participation.

Quality: Students SHOULD provide additional information regarding a topic; find relevance to the information/discussion and explain why; present alternative explanations; and/or elaborate on ideas already discussed. Students SHOULD NOT post offensive comments; agree or disagree without elaborating why; duplicate information already presented; cut and paste other's responses; plagiarize information; and participate in "flaming" or online arguing and name-calling. NOTE:

- Each post must have a minimum of 4-5 sentences (i.e. a traditional paragraph)
- Each sentence must be complete and contain proper use of grammar.
- Each post must contain a specific question to get other students engaged in a deeper and critical conversation. A general question such as "what does everyone else think?" does not count!
- Each post must contain a reference to the book or some other source that supports your thoughts and opinion on a topic.
- If any of the above criteria are not met, then the student may receive either a zero or a prorated grade

If students do not satisfy the criteria for **frequency AND quality** criteria, then they will not receive credit for participation. Furthermore, the forums are only available during a very specific time frame listed below. Be mindful of those times. The instructor will not reopen a forum for any reason. If a student misses participating in a threaded discussion due to an excused absence, then the instructor reserves the right to give the student an alternative assignment in lieu of missed participation.

Rubric for grading discussion thread participation

Grading Factors	Number of Points out a total of 2	Do I have this factor? Yes or No?
1. Posted at least the minimum of two required posts in a discussion thread	0.40	
2. Have one or more calendar days separating posts (e.g. if you post on a Monday, then you have to wait until Wednesday or if it was the 22 nd of the month, then you must wait until the 24 th of the month)	0.40	
3. Each post contains at least four to five sentences using correct sentence structure and grammar	0.40	
4. Each post contains a content related question at the end to get other student involved with your point or perspective	0.40	
5. Each post contains a reference (e.g. the textbook, news article, Google scholar, Galileo)	0.40	
TOTAL	2.0	

Assignments: Students will complete eight Padlet assignments, each worth two points for a total of 16 possible points. A description of each assignment is listed in D2L. Additionally, students will complete eight Piktochart assignments, each worth a total of 16 possible points. A description of each assignment is listed in D2L.

Course Project: Students will participate in a Webquest that is related to content found in the Libguide associated with the course. For more information, click on the module in D2L entitled "Libguide project." **DUE 9am 11/17**

GRADE SCALE:

90 - 100% = A 80 - 89% = B 70 - 79% = C 60 - 69% = D < 59% = F

EARLY GRADES:

Georgia Highlands College offers a variety of part-of-term classes to allow our students to have flexible schedules. However, there are only three Semesters each year; Spring, Summer and Fall. It is only at the end of each Semester that grades are rolled to academic history and available on the official transcript. After each part-of-term, as soon as Instructors have entered grades, they may be viewed online by logging into the SCORE (https://discovery.highlands.edu:9986/pls/SCORE/twbkwbis.P_WWWLogin). Transcripts may also be request at any time by logging into the SCORE. Prior to the end of term, should a student need an early grade letter sent to another institution they may complete the request form and submit it to the Registrar's Office for processing (<http://www.highlands.edu/site/registrar-forms>). Please contact the Registrar's Office at registrar@highlands.edu for assistance.

EARLY WARNING PROGRAM:

Georgia Highlands College requires that all faculty members report their students' progress throughout the course of the semester as part of the institution-wide Early Warning Program (EWP). The objective of the program is to support academic success by reviewing early indicators of satisfactory student progress. In accordance with EWP, faculty members will provide the Registrar's Office with academic reports of each student enrolled in their course(s) at check points staggered throughout the semester. The following success factors are reported at their corresponding checkpoint:

Week 2: Notification of Non-Attendance

Week 6: Satisfactory or Unsatisfactory Progress

UNDER GEORGIA LAW, GRADES CANNOT BE DISTRIBUTED BY TELEPHONE OR EMAIL, OR POSTED BY SOCIAL SECURITY NUMBER.

FINANCIAL AID:

This message applies only to students receiving financial aid = "Federal regulations state that if a student did not attend classes and received failing grades, then the grades were not earned and financial aid needs to be reduced accordingly. Please be advised that any student receiving a 0.00 GPA will be required to prove that the 0.00 GPA was earned by attending classes or completing requirements for each class. Students who have earned at least one passing grade for the semester will not be affected by this regulation. If a student has properly withdrawn from all classes, the student's financial aid should be adjusted from the time they signed the withdrawal form".

TOBACCO-FREE CAMPUS:

Georgia Highlands College prohibits the use of tobacco products on any property owned, leased, or controlled by GHC. All faculty, staff, students, visitors, vendors, contractors, and all others are prohibited from using any tobacco products (i.e. cigarettes, eCigarettes, cigars, smokeless tobacco, snuff, chewing tobacco, etc.) while on GHC property.

IMPORTANT CLASS DATES:

Drop/Add Period:	9/19-9/23
Labor Day	9/4
Last day to withdraw with a "W":	10/23 by 5pm
Last day of Class:	12/17

EXAM POLICIES:

	The exams may be comprised of short answer, multiple choice, and/or matching questions.
	Expect that all exams will use Respondus Lock Down Browser and Monitor
	<p>I have created a sample exam that all students can take in order to get used to taking an online exam as well as check to see if you downloaded Respondus correctly. Please take this sample exam immediately to see if you need any technical assistance. This will insure that you will be ready to take the first exam on time.</p> <p>NOTE: The sample exam also serve as your attendance for the beginning of the course and failure to take the example exam by the end of the first week of class will result in you being administratively withdrawn from the course.</p>
	<p>Make-Up Policy: A make-up exam will be allowed if the following two criteria are met:</p> <p>(1). The instructor is notified 24-48 hours prior to the exam time that a problem exists. The later the notification, the less likely the instructor will grant a make-up for a missed exam.</p> <p>(2). The absence must be excusable and documented. Examples of excused absences are illnesses with a doctor's excuse, death in the family, military deployment, etc. Employment conflicts, vacations and personal activities are not acceptable excuses. The instructor reserves the right to determine the type of documentation required and if an absence is excusable. Note: If either of the above conditions are not met, then the student forfeits their right to a make-up exam. Unexcused absences will result in a grade of zero for that exam. If the Instructor excuses an absence, the instructor reserves the right to (1) administer an alternative exam, (2) administer the exam in an alternative format (i.e. written, essay, oral, etc...) and (3) administer the exam IN PERSON at a time and location convenient to the instructor - NO EXCEPTIONS! Lastly, no student will be allowed to make up more than one exam during the semester!</p>

GENERAL COURSE ETIQUETTE & POLICIES:

	<p>EMAIL:</p> <ul style="list-style-type: none"> ▪ There is an email option in Georgia View D2L. Students are encouraged to use this option rather than GHC email to communicate. ▪ In general, all email will be answered in a timely manner. If you have a question, please indicate that with a "?" in the subject line of the email. ▪ The instructor will not accept any email from other sources other than Georgia View D2L or Georgia Highlands College!
	<p>TECHNOLOGY:</p> <ul style="list-style-type: none"> ▪ Minimum technical skills required for the course: <ul style="list-style-type: none"> ○ Proficiency in using D2L ○ Using email and attaching documents to email ○ Proficient use of Microsoft Word and PowerPoint ○ Saving, cutting, copying, and pasting documents and images ▪ The instructor is not responsible for technical difficulties that arise with D2L. A "Getting Started Tutorial with D2L" is available at: http://www.highlands.edu/d2l. ▪ Students can get 24 Hour online Assistance at: https://d2lhelp.view.usg.edu. Students can retrieve their D2L login credentials from the GHC ID Lookup link at: http://www.highlands.edu/site/banner-portal.
	<p>TESTING AND GRADED MATERIAL:</p> <ul style="list-style-type: none"> ▪ Exam, discussion, assignments, and course project dates are listed on the course schedule below. ▪ Dates are subject to change at instructor's discretion. Students will be notified of any changes ASAP on the D2L course page and/or through D2L email. ▪ An exam length is dependent upon the number of questions on an exam. Based on distance learning research, one minute per question is usually allotted for any exam. Therefore, if an exam contains 25 questions, then 25 minutes is allotted. The assumption is that it takes a student an average time of one minute to answer a question. Therefore, some questions will take less time and others will take more time. Be mindful of the time during each exam.

- ***IMPORTANT: It is assumed that students are absolutely NOT using anything (or anyone) to help them during an exam! The exams are monitored and if a student is not looking directly at the screen the entire time, then any other behavior (e.g. looking up, down, sideways, etc...) could be construed as cheating. Additionally, no talking aloud while taking the exam! Use of writing utensils, phones, paper, calculators, books notes, etc... is not permitted. Lastly, use of any device to copy, photograph, or record an exam is prohibited and will constitute a violation of the academic integrity code.***
- Be sure to check the maintenance schedule of Georgia View D2L - it changes frequently. Maintenance may occur during the time frame of an exam. Immediately contact the instructor if this occurs. The instructor reserves the right to change an exam date due to technical issues and/or because of maintenance schedule changes. The instructor will give an appropriate length of time to take online exams.
- Because exams are monitored and recorded please wear attire that you would wear as if you were attending class on campus.
- If any exam is monitored and a clear image is not displayed or recorded but the student completes the exam, then the exam is not counted and the student will receive a zero. Be sure that your web cam is working properly before taking an exam.
- Do not attempt to take the exam at the last minute. The program is designed to shut off on a specific day and at a specific time. If you attempt to take an exam and you have been disconnected from the Internet your exam will still count down the time - therefore you must try to reconnect immediately and finish the exam. If a student wishes to review an exam taken, then a student must make an appointment with the instructor during his office hours.
- Students will review an exam IN PERSON and NOT ONLINE. Furthermore, a student can review an exam only after the exam is taken - BUT before the next scheduled exam is administered. Once the subsequent exam has been administered, students will not be allowed to review old exams. Therefore, it is imperative to make an appointment to review exams during the instructor's office hours and on the campus his office is located.
- Missed exams, discussions, and labs without a reasonable and documented/verifiable excuse results in a zero for that missed material. Excusing students from missed material is at the instructor's discretion.
- Students are responsible for collecting and saving all graded material. If a problem or dilemma arises (e.g. error on an exam or grade miscalculation), students may be asked to provide all graded material handed out during the semester.

WITHDRAWAL POLICY:

In order to withdrawal, a course withdrawal form or a complete withdrawal form must be obtained from the Admissions and Records Office, filled out by the student, signed and submitted to the registrar's office. If this paperwork is not done, then you are still considered enrolled in the course and will get an F even if you don't participate at all. Do not expect a grade change from F to W once it is on the permanent transcript (following the close of the semester).

Any withdrawals after mid-semester will result in WF unless the Academic Vice-President's office gives approval for a hardship non-punitive withdrawal. Such a decision is made cooperatively between the Academic Vice-President's Office and the instructor. Having a less-than-desirable grade average is not reason enough for a hardship case. Make a decision based on grade before mid-semester. In such a case, inform the instructor of the hardship situation, and then inform the Office of the Vice President of Academic Affairs (Rome Campus). With appropriate documentation, the VP will send a letter of permission to the instructor to allow a non-punitive withdrawal.

In any withdrawal, forms are available at the Help Desk. It is also important that you check with the Financial Aid Office to see how your withdrawal might impact any financial aid.

DISABILITY STATEMENT:

"If any student in the class feels that he or she needs accommodation due to a disability, please feel free to discuss this with the instructor early in the term. Georgia Highlands College has resources available for students with certain disabilities. Accommodations may be made (such as providing materials in alternative formats, assuring physical access to classrooms or being sensitive to interaction difficulties that may be posed by communication and/or learning disabilities) through Student Support Services on all campuses. For more information please contact: Cartersville 678-872-8004; Douglasville and Floyd 706-368-7536; Marietta 678-915-5021; Paulding 678-946-1029."

ACADEMIC INTEGRITY

Cheating is strictly prohibited. Any evidence of cheating, or collaboration in cheating will result in a zero on the assigned materials and possible further disciplinary actions which may include failure in the course. Any appearance of cheating will be regarded as cheating so students should avoid any and all behaviors that could even be construed as cheating. Policies on student conduct and academic integrity are located in the GHC "Student Guide and Planner" and in the Student Handbook at <http://www.highlands.edu/site/academic-integrity-documents>.

TENTATIVE LECTURE SCHEDULE

NOTE: This is a tentative lecture schedule for BIOL 1020. The instructor reserves the right to alter this schedule at his discretion. Any changes in this schedule will be announced to the students as soon as it is possible.

DATE	Unit	GRADABLE WORK	CONTENT
Immediately	Please Start Here Module		Introduction Discussion & Sample Quiz (due no later than 9am 8/26)
9am 8/19 until 9am 9/8	1	Threaded discussion, Quiz, Padlet, and Piktochart	Plant Structure and Function
9am 9/8 until 9am 9/22	2	Threaded discussion, Quiz, Padlet, and Piktochart	Plant Physiology
9am 9/22 until 9am 10/6	3	Threaded discussion, Quiz, Padlet, and Piktochart	History of Plant Evolution and Adaptation
9am 10/6 until 9am 10/20	4	Threaded discussion, Quiz, Padlet, and Piktochart	Biomes and Plant Diversity
9am 10/20 until 9am 11/3	5	Threaded discussion, Quiz, Padlet, and Piktochart	Domestication of Plants
9am 11/3 until 9am 11/17	6	Threaded discussion, Quiz, Padlet, and Piktochart	The Impact of Plant Domestication
9am 8/19 until 9am 11/17			Libguide Project (due 9am 11/17 No exceptions, hand in early to be safe!)
9am 11/17 until 9am 12/8	7	Threaded discussion, Quiz, Padlet, and Piktochart	Plants in Science and Medicine
9am 11/20 until 9am 11/26			Thanksgiving break
9am 12/8 until 9am 12/17	8	Threaded discussion, Quiz, Padlet, and Piktochart	Plants, Society and the Environment

GOOD LUCK! HAVE FUN! And remember, I am here to help you succeed in this course. Please do not hesitate to ask questions if you need assistance.

Final Report

Affordable Learning Georgia Textbook Transformation Grants

Final Report

Date: 11/12/17

Grant Number: 244

Institution Name(s): Georgia Highlands College

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

Thomas Harnden, Professor of Biology, Georgia Highlands College, tharnden@highlands.edu

Katie Bridges, Instructional Designer, Georgia Highlands College, kbridges@highlands.edu

Project Lead: Dr. Tom Harnden

Course Name(s) and Course Numbers: BIOL 1020 Plants, Society, and the Environment

Semester Project Began: Fall 2016

Semester(s) of Implementation: Spring 2017, Summer 2017, Fall 2017

Average Number of Students Per Course Section: 26

Number of Course Sections Affected by Implementation: Three

Total Number of Students Affected by Implementation: 79

1. Narrative

A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:

We had four objectives associated with the grant

1. *Development of an **informational repository** in the form of a BIOL 1020 Lib-Guide containing free articles, electronic books, movies, newscasts, websites, and other educational resources - this repository will be used to create modules that support both science and course-specific learning objectives*

Results and observations – A course lib guide was created and resides at <http://getlibraryhelp.highlands.edu/biol1020>. It was very easy to create individual units (aka modules) in the Libguide as well as find appropriate and diverse resources for each unit.

2. *Development of **course modules** that contain course-specific concepts using a question driven/inquiry based learning format and that align with the course*

learning objectives - each module will be designed to help students to develop and use an analytical and critical lens regarding scientific information communicated in a contemporary society.

Results and observations – Although all of the information and resources can be located in the course Libguide, all exams, assignments, and discussions were house in D2L.

3. *Development of **innovative exercises** that use graphics and that are interactive in nature – these types of exercises will aid students with various learning styles*

Results and observations – Screencasts and PowToons were created for discussions and Padlet and Piktochart, both free web tools, were used for assignments.

4. *Development of **sustainability** - a mandatory project of a Galileo and/or web quest will be created that will have a dual purpose of both enabling a student to explore a unique course related concept but also will add to and expand the informational repository*

Results and observations – a web quest project was designed and implemented so that students will search and find resources that do not currently exist in the course Libguide and, therefore, serves as the tool to sustain course resources.

B. Describe lessons learned, including any things you would do differently next time.

The largest lesson learned was to not only test the technology before implementing the course but also think about the possible implications of using that technology. Twitter was used first to engage students in exploring various topics in each unit. However, the restriction of 140 characters was frustrating for students. Additionally, the instructor was able to see personal accounts with text and images not appropriate for a collegiate environment. Therefore, twitter was replaced with Piktochart, which was tested, implemented, and more successful for exploring and conveying information.

2. Quotes

- I honestly didn't think about having a textbook. In a sense for the plant science class it was easier not having the textbook. The notes given were specific and there were extra resources available with the advantage of using the Internet as a source as well.
- I didn't even notice until after I read the syllabus that we would not require a text. I was not concerned for two reasons: 1- the material needed to be successful was provided 2- the material is reliable and confirmed science. There isn't always a need to pay for an over costly textbook.

- Not having a textbook always makes studying a little more difficult. In the case of this class there were plenty of alternatives to make up for the absence of a textbook. I was also forced to use Galileo to expand my studying, which I believe was beneficial.

3. Quantitative and Qualitative Measures

3a. Overall Measurements

Student Opinion of Materials

Was the overall student opinion about the materials used in the course positive, neutral, or negative?

Total number of students affected in this project: 79

- Positive: 83% of 45 respondents
- Neutral: 13% of 45 respondents
- Negative: 4% of 45 respondents

Student Learning Outcomes and Grades

Was the overall comparative impact on student performance in terms of learning outcomes and grades in the semester(s) of implementation over previous semesters positive, neutral, or negative?

Student outcomes should be described in detail in Section 3b.

Choose One:

- Positive: Higher performance outcomes measured over previous semester(s)
- Neutral: Same performance outcomes over previous semester(s)
- Negative: Lower performance outcomes over previous semester(s)

Student Drop/Fail/Withdraw (DFW) Rates

Was the overall comparative impact on Drop/Fail/Withdraw (DFW) rates in the semester(s) of implementation over previous semesters positive, neutral, or negative?

Drop/Fail/Withdraw Rate:

16% of students, out of a total 18 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

- Positive: This is a lower percentage of students with D/F/W than previous semester(s)

- ___ Neutral: This is the same percentage of students with D/F/W than previous semester(s)
- ___ Negative: This is a higher percentage of students with D/F/W than previous semester(s)

3b. Narrative

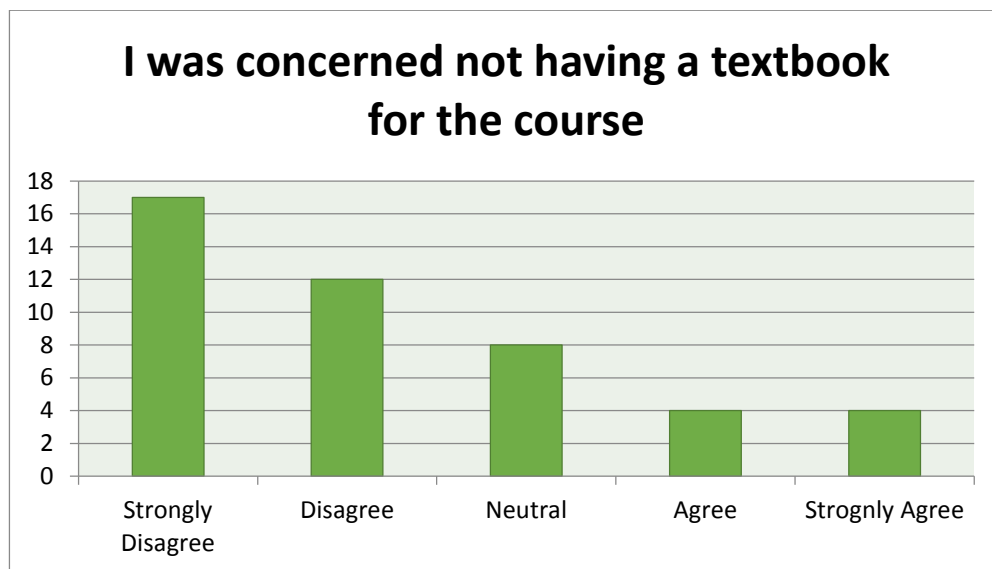
Data collected in this project include: Qualitative data from open-ended questions and Quantitative data from Likert-type questions.

Qualitative Data Collected:

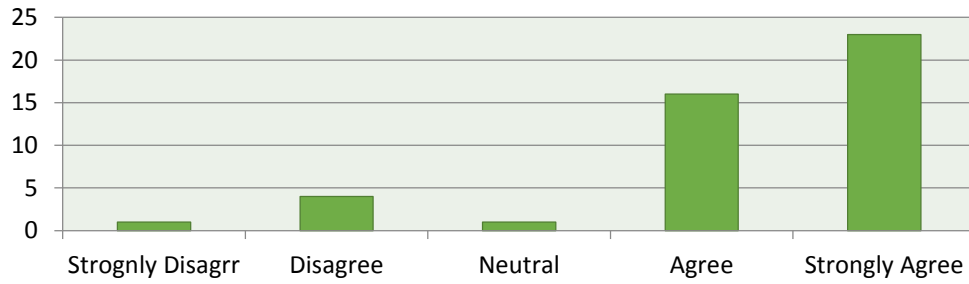
Surveys for the course included two open-ended questions: (1) In a few sentences, please describe your thoughts about NOT having a textbook used for this course and (2) Please describe your thoughts regarding the Libguide that was used for the course (e.g. Was it sufficient? How helpful was it? What changes to it would you make?). In regards to the first question, three themes concerning not having a textbook emerged: (1) having resources in lieu of a book is cost effective, (2) resources provided were concise and focused, and (3) the organization of the material provided enabled students to keep interest over time. In terms of the second question, use of a Libguide, three themes emerged: (1) all the resources were organized and helped students stay focused on a particular units material, (2) Libguide resources helped put lecture topics into perspective, and (3) videos and other resources added not only helped in learning lecture topics but also added a little more information to help apply specific concepts.

Quantitative Data Collected:

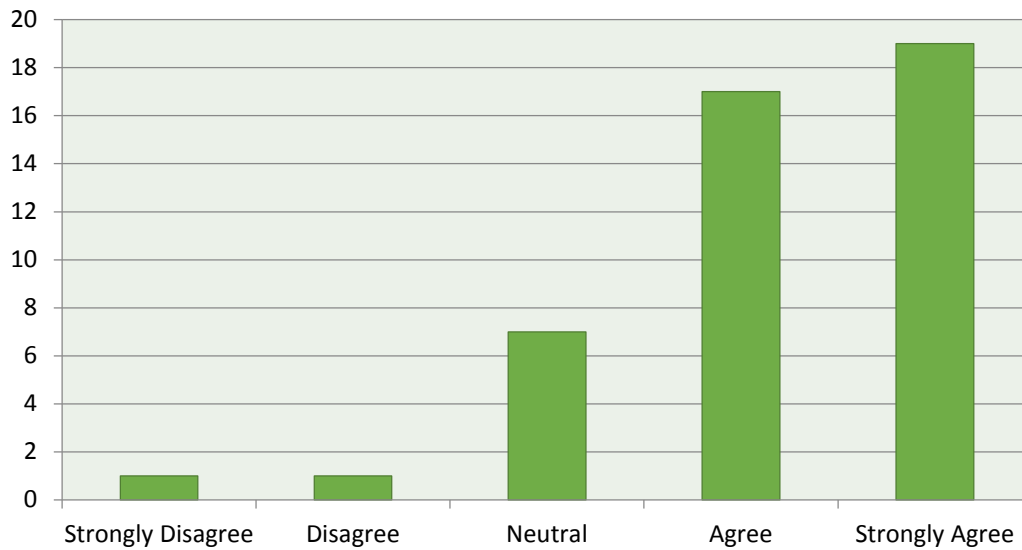
NOTE: 57% (45 out of 79) students took the survey and the questions and answer distributions used on the surveys are as follows:



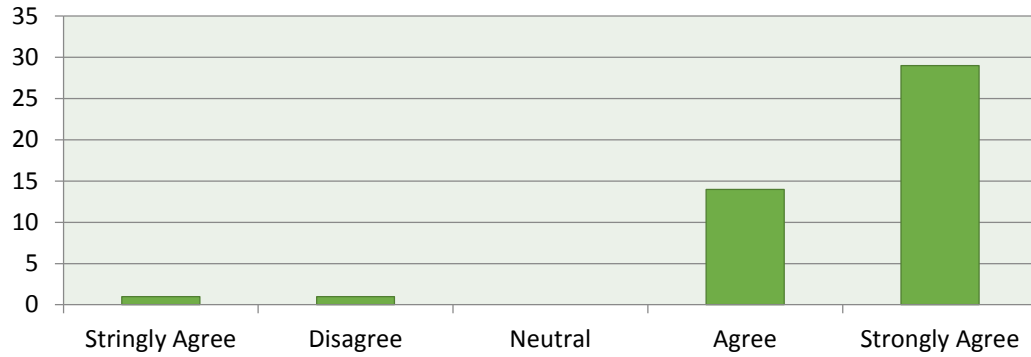
The Power-Points/Notes used for this course was sufficient for my needs to complete the course:



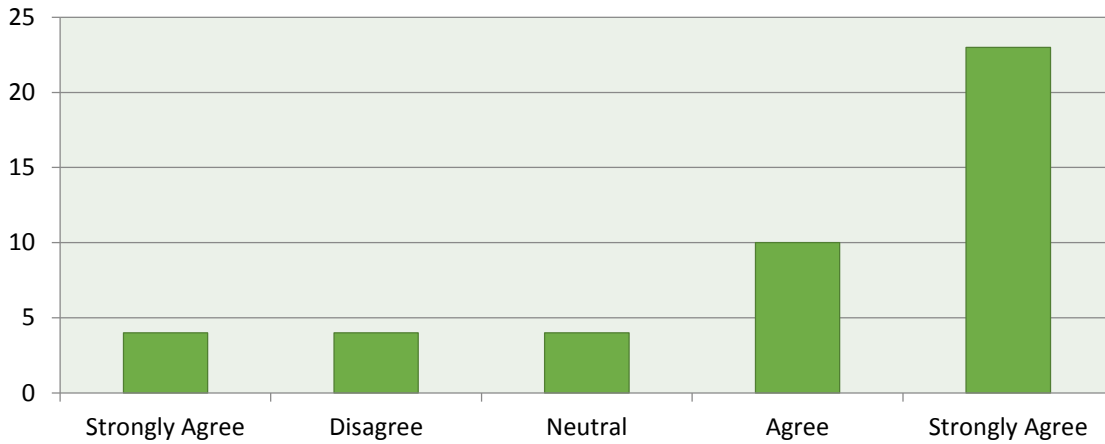
The lib-guide was helpful



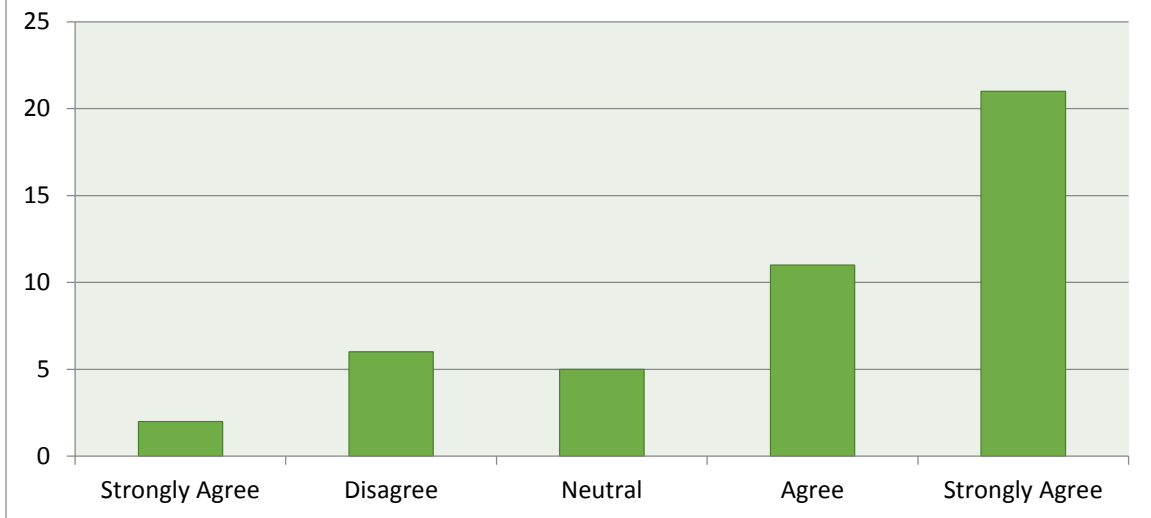
If a used textbook were cheaper and available to buy, then I would buy the used textbook rather than the new textbook



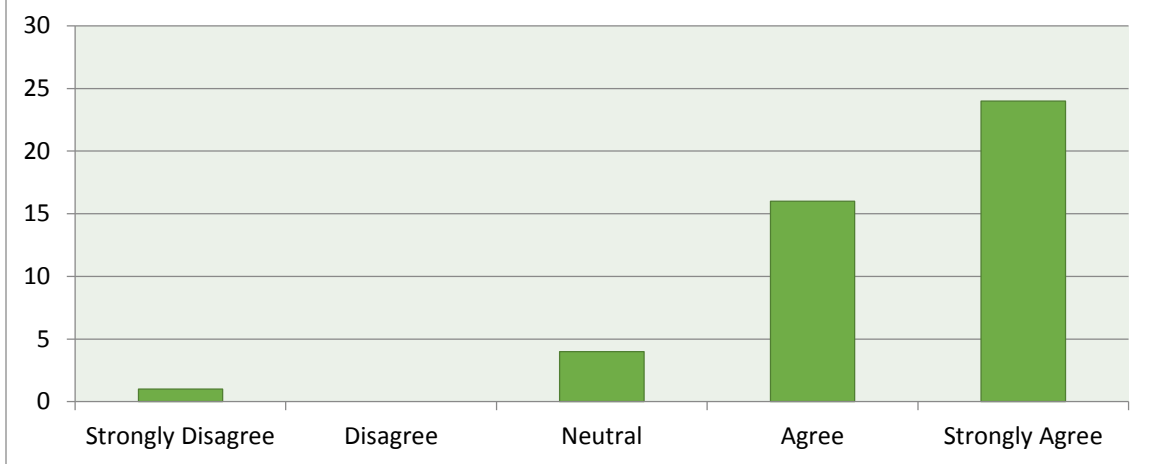
I take into consideration the cost of a course textbook and other class materials when I register for a class



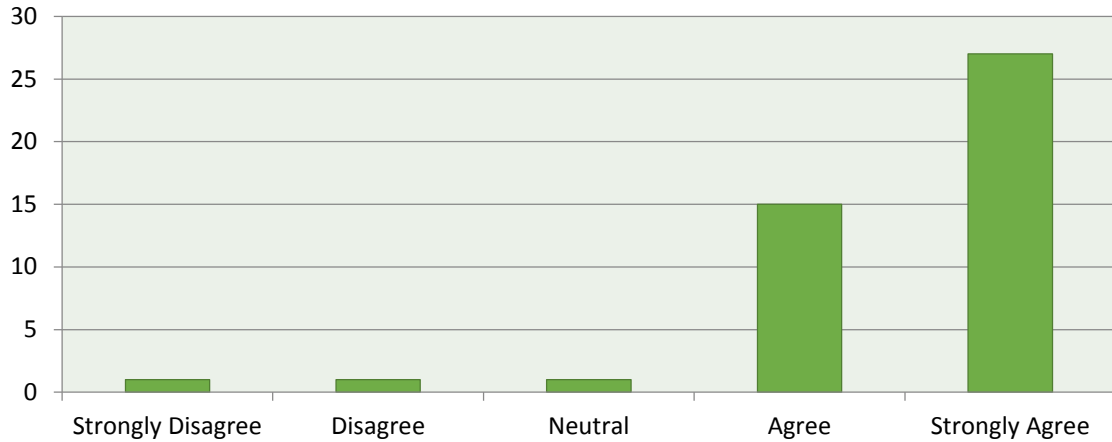
I will only buy a course textbook if I feel it is absolutely necessary



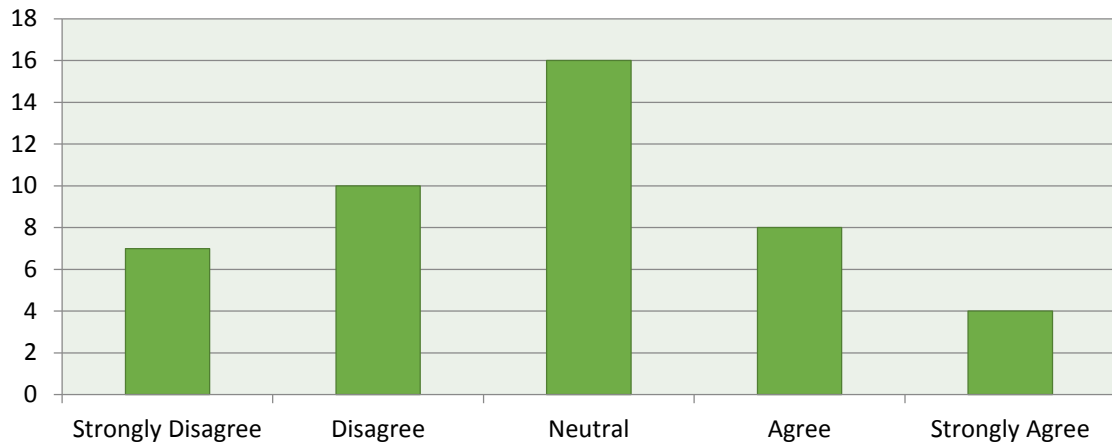
When an instructor develops a course, he or she should taken into consideration the cost of a textbook and other class materials

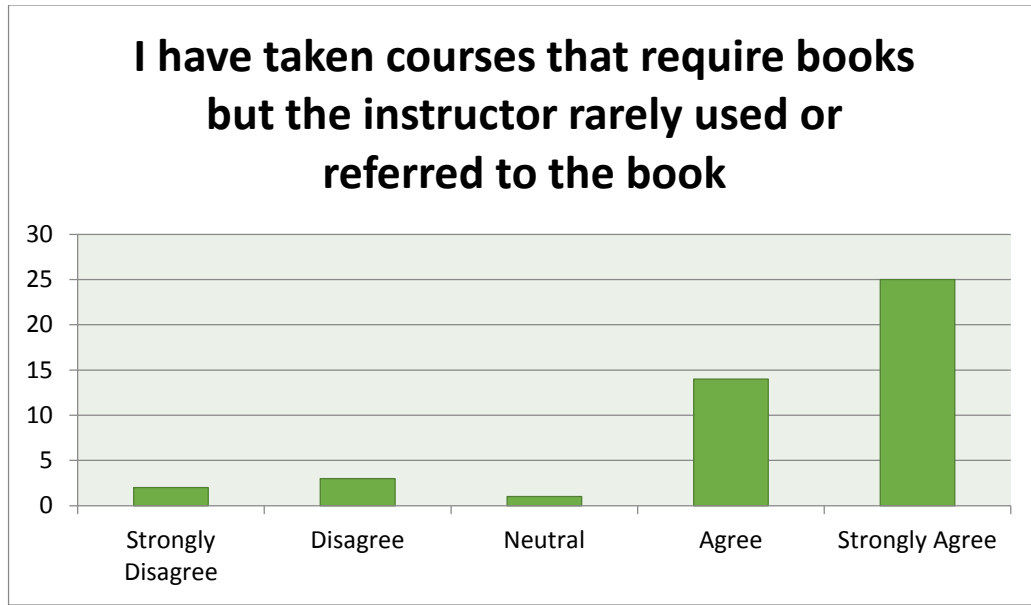


I would feel comfortable using free or low cost alternatives to a traditional course textbook



Although an instructor did not adopt a textbook for the class, I would still want the option to buy a printed copy.



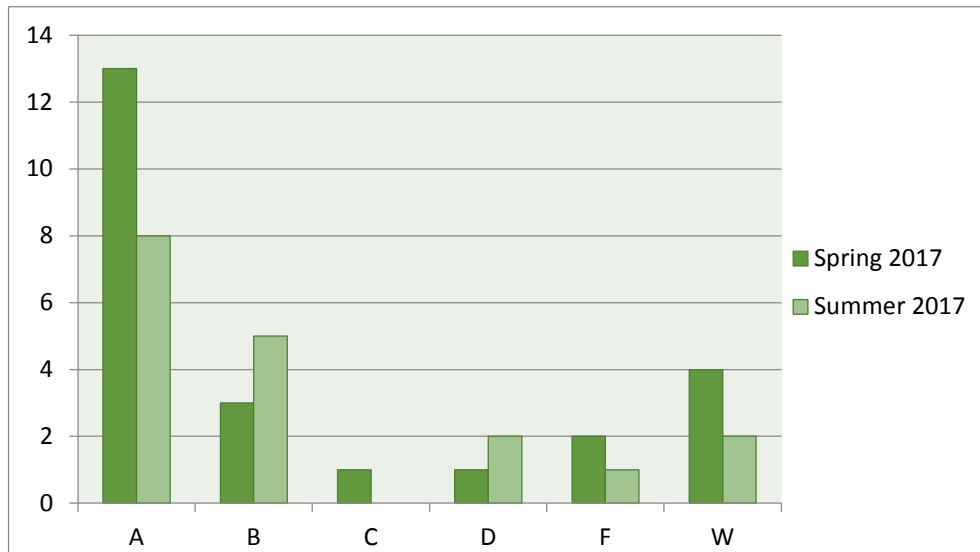


Summary of Quantitative Survey Questions:

From the data the following conclusions were made:

1. The cost of a textbook is a concern for students
2. The lack of having a textbook was not a concern for students
3. Faculty should not only take into consideration of course material cost but also refer to and use the materials throughout the course
4. The Libguide created for this course was sufficient for student learning
5. Students are open to free or low cost resources other than traditional purchased materials

Grade Distributions:



4. Sustainability Plan

The division of Natural Sciences and Physical Education at Georgia Highlands College is committed to using free or low cost materials to support effective and affordable learning to students. With that said, the division will continue to use the current material as well as add more sources into the Libguide created for this course. Additionally, both science faculty and librarians are committed to continually exploring options regarding alternative education materials and activities that will lead to meaningful learning while simultaneously decrease the financial concerns of students.

5. Future Plans

Using the information gleaned from the qualitative and quantitative portions of the surveys, effort will be forth concerning the reorganization of the Libguides to more directly reflect the notes and/or chapters yet still contain enough materials that would enable students to examine topics in greater detail. Additionally, it is hoped that faculty will use the Libguide in a more integrative manner.

6. Description of Photograph

- *List the names of the people in the separately uploaded photograph and their roles.*
- *E.G.: (left-right) Dr. Transformer, team lead and instructor of record; Agent Graphic, instructional designer; Dr. Philomath, subject matter expert; B. Bibliophile, librarian; A. Einstein, Student.*



(L) Tom Harnden, Project Lead, (R) Katie Bridges, Instructional Designer