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.

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<table>
<thead>
<tr>
<th><strong>Application Details</strong></th>
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<tr>
<td><strong>Manage Application: Textbook Transformation Grants: Round Ten</strong></td>
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<td>Submitter First Name:</td>
<td>Sheryne</td>
</tr>
<tr>
<td>Submitter Last Name:</td>
<td>Southard</td>
</tr>
<tr>
<td>Submitter Title:</td>
<td>CSU Department of Interdisciplinary Studies Open Access Grant</td>
</tr>
<tr>
<td>Submitter Email Address:</td>
<td><a href="mailto:SheryneSouthard@Clayton.edu">SheryneSouthard@Clayton.edu</a></td>
</tr>
<tr>
<td>Submitter Phone Number:</td>
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</tr>
<tr>
<td>Submitter Campus Role:</td>
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<td>Co-Applicant Name(s):</td>
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<td>Primary Appointment Title:</td>
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<tr>
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**Team Members (Name, Title, Department, Institutions if different, and email address for each):**

Sheryne Southard, Dept of Interdisciplinary Studies, SheryneSouthard@clayton.edu
Sponsor, (Name, Title, Department, Institution):

College of Arts and Sciences, Dean Nasser Momayezi, Clayton State University

Course Names, Course Numbers and Semesters Offered:

Tech 3101, Supervision in the Workforce, Offered Spring, Summer and Fall

Tech 3104, Ethics for Administrative and Technical Managers, Offered Spring, Summer and Fall

Tech 3111, Applied Economics, Offered Spring, Summer and Fall

Tech 4115, Global Technology, Offered Spring, Summer and Fall

List the original course materials for students (including title, whether optional or required, & cost for each item):

Tech 3101 - Effective Supervision, Required Text, $76.99 (new) and $57.75 (used); Tech 3104 – Business Ethics: Decision Making, Required Text, $167.99 (new) $126.00 (Used); Tech 3111 – Survey of Economics, Required Text, $242.99 (new) and $183.25 (used); Survey of Economics Instant Access, Required Access, $36.99 (new) and $27.75 (used); Freakonomics with New Material, Required Text, $16.99 (new) and $7.75 (used); Tech 4115 - International Business, Required Text, $264.52 (new) and $198.50 (used)

Average Number of Students per Course Section:

Tech 3101- 32.67; Tech 3104 – 28.8; Tech 3111 - 24; Tech 4115 - 33

Number of Course Sections Affected by Implementation in Academic Year:

Tech 3101 - 6; Tech 3104 - 5; Tech 3111 - 4; Tech 4115 – 3

Average Number of Course Sections Per Semester:

Tech 3101: Spring – 2, Summer – 2, Fall - 2
Tech 3104: Spring – 2, Summer – 1, Fall - 2
Tech 3111: Spring – 2, Summer – 1, Fall - 1
Tech 4115: Spring - 1, Summer -1, Fall - 1

Total Number of Students Affected by Implementation in Academic Year: 534
Requested Amount of Funding: $25,800

Original per Student Cost: Aggregate cost per student $806.47 (new) and $600.00 (used); Tech 3101 - $76.99 (new) and $57.75 (used); Tech 3104 - $167.99 (new) and 126.00 (used); Tech 3111 - 296.97 (new) and $218.75 (used); Tech 4115 – $264.52 (new) and $198.50 (used)

Post-Proposal Projected Student Cost: Tech 3101 - $8.99; Tech 3104 - 0; Tech 3111 - 0; Tech 4115 – 0

Projected Per Student Savings: Aggregate savings per student: $793.48 (new) to $591.01 (used); Tech 3101 - $68 (new) and $48.76 (used); Tech 3104 - $167.99 (new) and $126.00 (used); Tech 3111 - $296.97 (new) and $217.75 (used); Tech 4115 – $264.52 (new) and $198.50

Projected Total Annual Student Savings: $ 69,960.75 (used books) to $93,900.21 (new books)

Project Goals:

Project Goals:
The goal of this project is to improve the success of the students in the Department of Interdisciplinary Studies by 1) offering no-cost and low cost books, and 2) enhancing the learning materials and curriculum to meet their individual needs. Clayton State University (CSU) is a primary black institution, where 57% of the students are Pell Grant recipients. CSU serves as an access school to many first-generation college students. The Department of Interdisciplinary Studies houses the Bachelor of Applied Science degree (B.A.S.), which offers career advancement opportunities to people who have earned their Associate of Applied Science (A.A.S.), Associate of Applied Technology (A.A.T.), other career associate degrees, or 38 hours of technical coursework. Students who have earned career associate degrees at regionally accredited institutions can bridge smoothly into B.A.S. program with little or no loss of credit. All of the students in the program are nontraditional, adult students that typically work
part-time or full-time.

TECH 3101 (Supervision for the Workforce), TECH 3104 (Ethics for Administrative and Technical Managers), TECH 3111 (Applied Economics) and TECH 4115 (Global Technology) are courses in the B.A.S. program. This year 534 Clayton State University students enrolled in these classes. These students were B.A.S., Integrative Studies and Legal Studies majors. The aggregate book cost for these students ranged from $69,960.75 (used books) to $93,900.21 (new books).

The team’s goal is to improve the success of the students as follows:

**Adopt:** Adopt OER materials to support the learning outcomes of TECH 3101, TECH 3104, TECH 3111, and TECH 4115. This first objective is designed to 1) reduce students’ financial burden to purchase textbooks which can hinder or delay student’s ability to enroll in the course; and 2) ensure that all students have the textbook on the first day of class to increase student success.

**Create:** Create audio-visual instructional content to align with the OER book. The resources will be learner-centered. This second objective is designed to improve student success by customizing the materials to support the unique needs of the nontraditional student, as indicated by the body of research on the pedagogy of adult learners. It is also designed to provide stimulating learning materials that encourage students to be active and engaged learners and improve student performance.

**Diffuse:** Expand the use of OER student resources at CSU by mentoring faculty members in Department of Interdisciplinary Studies and assisting other faculty with the adoption and creation of no-cost or low-cost textbooks for other upper-division courses. This fourth objective is designed to expand the cost savings to even more students. The project lead has completed an ALG transformation grant, mentored a history professor in securing an ALG and now seeks to disseminate this knowledge throughout the entire department and the University.

**Statement of Transformation:**

**DESCRIPTION OF TRANSFORMATION**

**PROBLEM:**

**Textbook Cost:**

This year 534 B.A.S. students paid an aggregate cost of between $69,960.75 (used books) to $93,900.21 (new books) for four books in the program. The used versions of two books in the program are near or in excess of $200 and the used version of another book exceeds $100. Below is summary of the cost and the student enrollment.
A large percentage of the CSU population is low-income students with financial limitations. Students are often unable to purchase textbooks in a timely fashion or not able to purchase them at all due to the high costs, lack of funding, and or delays/issues with financial aid. Other students are unable to complete the initial assignments as they have not yet purchased the book. Some even forgo purchasing the textbook, due to the cost, which can prevent them from successfully completing a course and increase their time to degree completion. “[Sixty-five percent] of students said that they had decided against buying a textbook because it was too expensive. The survey also found that 94% of students who had foregone purchasing a textbook were concerned that doing so would hurt their grade in a course.” (Senack, 2014).

The project lead, Sheryne Southard, transformed one class in the Department in round six of the ALG grant process. The following unsolicited emails were received from students after they were notified that a free open access book would be used for the class. These three excerpts from emails are representative of the sentiment of the students in the class.

“I really appreciate that you have done this. The cost of books are out of control. I have two other classes where my books cost $200 each. I wish all other professors would do this as well. Thank you and I look forward to taking this class.”
“This is great news! Thank you!”
“Thank You, I really appreciate that.”

Unique Needs of Nontraditional Learners:

CSU campus is a predominantly black institution, comprised of 2,997 (45.2%) non-traditional students (age 25 and up). The average age of the CSU student is 27. Non-traditional students are frequently under-served by direct instruction due to financial, family, career or learning style preferences (Keengwe and Agamba, 2015). Non-traditional learners are often low-income and/or first-generations students whose life circumstances prohibited them from attending college immediately after high school graduation. As adult learners, they must balance family, child-care, personal expenses, and work obligations with their educational costs and obligations.

The nontraditional students have unique learning characteristics. Adult learners are more autonomous, independent, self-directed and self-reliant (Cercone, 2008). In comparison to the

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traditional college student, the adult learner is more actively involved in their own learning. (Knowles, 1975). The traditional higher education learning environment is in many ways, suited to toward meeting the needs of the traditional college-age student.

**TRANSFORMATION SOLUTION:**

**Adopt:** Adopt OER resources to support the learning outcomes of Tech 3101, Tech 3104, Tech 3111, and Tech 4115. The final product will be a comprehensive and appropriate extremely no cost or low-cost textbook for students. The instructors will also ascertain whether any errors (if any) or gaps are present in the materials and create supplementary learning materials as needed.

**Create:** Create audio-visual instructional materials that are aligned with the book and that are learner-centered in two ways. First, the instructional materials will be segmented by topic or sub-topic in mini-lectures that do not exceed 6 minutes. Segmentation is a “design principle in which the learning materials are divided into short units and distributed over [a] series of instructional events, such as topics or lessons referred to as segments” (Clark, Nguyen, & Sweller, 2006). Within the context of multi-media, it involves segmenting chunks of “dynamic visualizations that have an identifiable start and end point and which are distinguished by inserting pauses between different segments” (Ibrahim, 2012). The research indicates that student engagement in the online learning environment was greater with shorter videos, 6 minutes or less, and it was maximized with videos of less than 3 minutes (Guo, Kim, & Rubin, 2014). After 6 minutes, student engagement declines significantly. This research was gathered in the largest study of its kind, which analyzed data from 6.9 million video sessions and measured student engagement. Second, utilize multimodal instructional content (e.g., videos, light board lectures, narrated PowerPoints, graphics, images, tables, and web resources) to provide the student with an engaging learning experience.

The project lead incorporated this design principle in the previously mentioned transformed course in round six of the ALG grant process. These excerpts from feedback about the segmented multi-media content are representative of the positive sentiments of the students about the transformation.

"Integrative approach in presenting the course materials. This layered approach combined great short power point lectures. I wish all online courses were presented in the style and manner … I would be eager to sign up for any required course taught by her … outstanding!"

“The modules you created are amazing, with the videos and the separation of each subject matter allows me to process the information more efficiently.”

“I enjoy your videos in the modules, they are not long and boring rather straightforward and to the point.”

“adapts to all learning styles, power point, short clips, scripts, live footage, … I found it to be very helpful when understanding the material”
Diffuse: Expand the use of OER student resources at CSU by mentoring faculty members in Department of Interdisciplinary Studies by assisting other faculty in the adoption and creation of Low-Cost-to-Students textbooks for other upper-division online courses. Currently, one other popular B.A.S. course textbook (Tech 3115 - Legal Issues for Managers) has been converted to a No-Cost-to-Students textbook. If the current grant application is awarded, the B.A.S. students will have five upper-division courses in the program that utilize OER materials, which represents 38% of the upper division course in the program. The goal is to continue with the momentum of adopting more OER materials so that the courses with the highest enrollment and/or most expensive materials in the program are converted.

IMPACT OF THIS TRANSFORMATION ON STAKEHOLDERS AND COURSE SUCCESS:

Financial Support: The adoption of the OER no or low cost textbooks will reduce student financial barriers to taking Tech 3101, Tech 3104, Tech 3111, and Tech 4115. A large proportion of the CSU students come from low income households and are Pell Grant recipients (57%). CSU serves as an access school to many first-generation college students.

The sum total of these four textbooks ranges from $600.00 (used) to $806.47 (new). The new cost of the textbooks for these four classes will be $8.99. This will result in an annual student savings of between $ 69,960.75 (used books) to $93,900.21 (new books) for four books in the program. This amount is significant to this program, where the students are non-traditional working adults with housing, living, childcare and many other expenses.

Full-time undergraduate students at four-year public universities spend on average $1,200 each year on books and course materials (“Quick Guide,” n.d.). The Bureau of Labor Statistics estimated that these costs increased 812% between 1978 and 2013 (Perry, 2012). The consequential decrease in the cost of learning materials will lead to sustainability for reducing financial impediments to students’ ability to complete their degree and have the potential to increase the students’ likelihood of graduation. This can improve the University’s retention, progression, and graduation rates.

Some students do not have the financial resources to purchase the textbook before the first day of class. Hence these students are at risk for falling behind and withdrawing or failing. The reduced cost textbook will ensure that all students have access to the textbook on the first day of the class and are prepared to succeed in the class.

Student Success: We predict that student learning outcomes will be improved in two ways. First, all students will have equal access to the high quality textbook materials on the first day of class and no longer delay or forego purchasing the textbook to the detriment of their learning. This is particularly beneficial for students taking courses in a compressed timeframe. Since the Department offers both Tech 3101 and 3104 in half session formats to help students accelerate matriculation, delaying book purchases in these courses is cumulatively detrimental. When students have their books on the first day, they will be able to complete the
first modules, quizzes and assignments.

Second, the audio-visual instructional materials that are created to align with the book will support student success. As the research indicates, the segmentation of the instructional content in lectures that do not exceed 6 minutes will improve student engagement and retention. Also the utilization of multimodal instructional content (e.g., videos, light board lectures, narrated PowerPoints, graphics, images, tables, and web resources) will provide the students with an engaging learning experience. Both of these strategies are designed to improve student engagement, performance and success.

**Short-term vs. Long-term Impact:** In the short term, the 534 students that enroll in Tech 3101, Tech 3104, Tech 3111 and Tech 4115 are the primary stakeholders. These are required courses for the 309 B.A.S. program majors and multiple sections are offered each semester. These classes are also popular upper division electives for the 187 Integrative Studies majors and the 112 Legal Studies majors. So the potential reach of the impact is an additional 299 students at CSU.

In the long term, all students in the Integrative Studies, Bachelors of Applied Science, Liberal Studies, and Online Liberal Studies will benefit from the adoption of the four additional low-cost or no-cost textbook options in the Department. The goal is to continue to expand the use of OER resources throughout the department to create a culture of learner-centered education.

**IMPACT ON THE COURSE, PROGRAM, DEPARTMENT, INSTITUTIONS, ACCESS INSTITUTION, AND/OR MULTIPLE COURSES:**

**Faculty:** Faculty members within the department and college of arts and sciences will also be impacted. The grant recipients will diffuse the knowledge and experience that they gain through the transformation project to fellow faculty members. As previously indicated, over 45% of the CSU student body are nontraditional students and the percentage in the department of interdisciplinary studies is even greater. The grant will allow the recipients to adopt OER resources, customize learning materials to improve the learning outcomes of the nontraditional students and assess the results. The recipients will then conduct workshops at the department-level, and the university-level and present at a state or national academic conferences to disseminate this knowledge to faculty that teach this same demographic.

**Department and College:** The decrease in the cost of learning materials will reduce financial impediments to students’ ability to complete their degree. This has the potential to increase student graduation rates and decrease time to graduate. Research has shown that providing free instructional materials can improve student performance and retention rates (Hilton and Laman, 2012). Also, the goal is to increase the number of classes in the department that adopt OER learning materials. The option of a low-cost or no-cost textbook and a free interactive workbook is an attractive feature that the department will market to increase enrollment, which benefits the department and the college.
University: This grant application is in alignment with the first strategic priority of the Clayton State University strategic plan through 2022: “increase enrollment, retention, and graduation rates”. One of the strategies outlined in the plan is to accomplish this is increase receipt of external grants and “develop recognition and support systems to reward faculty and staff for innovations in teaching, research and service that support the institution’s strategic priorities.”

Transformation Action Plan:

The proposed transformation will take place in the stages outlined below:

Identify, Review & Adopt

The faculty have reviewed and selected OER resources:


Next, utilizing the criteria developed by Affordable Learning Georgia (clarity, comprehensibility, readability, content and technical accuracy, adaptability, appropriateness, and accessibility), each faculty member will evaluate the strength and weaknesses and ascertain that the resources are aligned with all course learning objectives. Then they will identify whether any gaps are present or whether any areas require updates and supplements and ensure that all materials comply with the System’s copyright policy.

Create

• Sheryne Southard will work with each faculty member to create segmented multi-media content to align with their respective OER selections. Examples of materials that may be developed include, but are not limited to light board lectures, narrated PowerPoint lectures, and video lectures. Sheryne Southard has extensive experience in this area and she has received seven national and state awards for her work in the creation of multi-media instructional content across disciplines.
• Christie Burton, Elnora D. Farmer, Xueyu Cheng, and Bryan LaBrecque will create, collect, produce, and organize supplementary learning materials for the textbook. They will also write multiple-choice unit exams, to be used in assessing students’ learning of the course major units. They will also incorporate the text into their learning management system (Brightspace) with emphasis on learning analysis, learning objective and analysis of instructional content,
alignment of instructional, overall assessment of the initiative. The course and syllabus and online platform will be redesigned to suit the transformation. The course learning objectives, as described in the syllabi, will remain the same policy.

Assess

Sheryne Southard will gather baseline qualitative and quantitative data for assessing the project’s transformative impact. After the courses are launched, the team will conduct student surveys to evaluate the quantitative and qualitative impact. Constructive feedback will be reviewed and the team will discuss any revisions that are necessary to improve the outcomes. The final report will then be published.

Diffuse

After the team has assessed the project results, they will report the outcomes to the Department in an effort to expand the use of OER student resources. An article about the project will be published in the Department newsletter. The Department Head will disseminate this information at the monthly department heads meeting to encourage larger participation in an effort to remove obstacles to graduation throughout the entire University.

Roles:

Southard, J.D. is responsible for 1) assisting each faculty member with the development and selection of instructional resources and materials; 2) creating the materials to encourage student participate in the data collection process; 3) overseeing the qualitative and quantitative data collection process for Tech 3101, Tech 3104, Tech 3111 and Tech 4115; and 4) completing the semester and final reports. Southard is a Professor of Legal Studies and Coordinator of Online Programs in the Department of Interdisciplinary. She has been recognized significantly for her contributions in the area of distance education. In 2017, she was awarded third place in the National SoftChalk Lesson Competition. In 2017, 2015 2014, she received honorable mention awards the same competition. In 2015, she received the Georgia Board of Regents’ Excellence in Online Learning Award. In 2010, she received the Georgia Board of Regents’ Scholarship of Teaching and Learning Award. In 2009, she won the grand prize for the AAfPE Pearson-Prentice Hall Online Teaching Competition. She has researched and published extensively in the areas of asynchronous distance education pedagogy, quality assurance standards, faculty training and best practices.

Christie Burton, EdD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3101. She is a Zell Miller Governor’s Teaching Fellow, a Partnering Academics and Community Engagement (PACE) and Problem-Based Learning (PBL) certified instructor at CSU and serves on the board of the International Society for Exploring Teaching and Learning (ISETL). She has been teaching management courses for over twelve years and produced many works in the area of Scholarship of Teaching and Learning (SoTL).
Elnora D. Farmer is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3104. She started her career in the areas of finance and accounting working as a financial analyst intern at NCR Corporation and as an officer and associate portfolio manager at Bank One, NA, now J.P. Morgan Chase. During her tenure in banking, she had the opportunity to work under both the retail and commercial areas of the institution. She is a Lecturer in the BAS program. She has served as an Editorial Board Member for Scientific and Academic Publishing, and is a reviewer and contributor for several publishers including Pearson. Her research interests include financial literacy and entrepreneurship, labor economics, financial institutions and online and distance learning pedagogy.

Xueyu Cheng, PhD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3111. She is an assistant professor of economics for the BAS program. Before joining Clayton State University, she was an assistant professor of Economics at Alabama State University. She received her Ph.D. in Economics from the Ohio State University. Her research focuses on the gender and racial issues in educational attainment and labor market outcomes. She also specializes in statistical modeling and conducts empirical research on economic and social issues such as bottle bills, demand for electricity, unemployment in the Black Belt region, and corruption. Her research has been published in journals including *International Journal of Happiness and Development*, *The Journal of Developing Areas*, *Journal of Economics and Economic Education Research*, *IFRSA Business Review*, *ASBBS E-Journal*, *Review of Business Research*, *International Journal of Reliability and Safety*, *The International Journal of Advanced Manufacturing Technology*, and *Journal of Materials Processing Technology*. Dr. Cheng has taught courses in Economics, Statistics, Business Mathematics, Accounting, Finance, Business Ethics and Operations Management.

Bryan LaBrecque, PhD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 4115. He has been a full-time faculty member at Clayton State University since 2008. He is currently the Director of the CSU Fayette Instructional Site as well as the coordinator of the Bachelor of Applied Sciences (BAS) degree program. In conjunction with those duties, he teaches numerous TECH courses - including a suite of Aviation Administration courses - as well as courses in both Business and Political Science. Along with his duties as a full-time assistant professor, Bryan also directs the operations at Atlanta Regional Airport at Falcon Field, in Peachtree City, GA. A mechanical engineering graduate of Georgia Tech, he has spent the majority of his professional career in the field of aviation. Starting as a flight sciences engineer for Lockheed’s famous “Skunk Works”, he moved to Delta Air Lines and spent 27 years in various positions including power plant maintenance, aircraft performance engineering, fleet planning, marketing, and strategic planning (M & A). Following Delta’s acquisition of Atlantic Southeast Airlines (ASA), he moved over to assume the position of Chief Operating Officer where he directed operations of over 900 flights per day.
Qualitative Measures

The effectiveness of the transformed low-cost materials will be examined with qualitative and quantitative measures. To encourage full participation, the project lead will develop a video explaining the importance of the survey and soliciting their full and complete participation and feedback. Students in the Fall 2017 and Spring 2018 sections will complete a survey at end of the semester that contains open-ended questions designed to solicit feedback about the current course materials (usefulness and access) and student satisfaction. Students in the Summer 2018 sections will complete the same survey at the end of the semester assessing the transformed open-access course materials. Narrative and critical feedback received from the students in the Fall 2017 and Spring 2018, will be compared against the feedback from the Summer 2018. The anonymous survey tool in D2L will be used.

Quantitative Measures

Students in the Fall 2017 and Spring 2018 sections will complete a survey that contains questions asking them to rate (using a Likert scale) the current course materials in the areas of accessibility, comprehensiveness, effectiveness, cost, and cohesion. Students in these sections will complete the same survey assessing the transformed open-access course materials. Scores for the survey of the current and transformed course materials will be compared. The anonymous survey tool in D2L will be used. Since the instructors have observed a decline in student performance during the first few weeks of school because of students’ untimely purchase of the book, the grades for the first two assessments of the Fall 2017 and Spring 2018 sections will be compared with the first two assessments of the Summer 2018 sections. The statistics feature of D2L will be used. Course grade distributions and Drop/Fail/Withdraw (DFW) rates under the original and transformed formats will also be compared from the period before and after the adoption of the OER books.

Timeline:
November 6, 2017: Attend the kick-off meeting at Middle Georgia State College. Knowledge obtained from kick-off meeting

November 2017: Identify, review, assess and select a primary text. Gather baseline qualitative and quantitative data from the Fall 2017 section for assessing the project’s transformative impact.

January - May, 2018: Create audio-visual content to align with the OER selection. Create, collect, and organize supplementary learning materials for the textbook. Develop master syllabi and master D2L courses. Gather baseline qualitative and quantitative data from the Spring 2018 section for assessing the project’s transformative impact. Complete semester end report.

June - July, 2018: Full adoption of new course materials. Survey students for quantitative and qualitative measures of impact and publish the final report.

August 2018: Results will be shared with the Department and College to encourage larger participation. An article about the project will also be published in the Department newsletter.

Budget:
The budget for this proposal is $25,800, as enumerated below:

Sheryne Southard overload: $5,000

Christie Burton overload: $5,000

Xueyu Cheng overload: $5,000

Elnora D. Farmer overload: $5,000

Bryan LaBrecque overload: $5,000

Travel to kick-off meeting: $800

Total: $25,800

We are requesting $5000 for each team member. This amount will be divided between two semesters for the overload at $2,500 each semester. We also request $800 for registration and travel expenses for two of the team members to attend the kick-off meeting. This amount would be split evenly with $400 for each professor to cover travel to the kick off meeting. Any remainder will be used for fees for copying and/or copyright and to offset.

Sustainability Plan:
The adoption of the open-source text will begin in Summer 2018. Other faculty members in the Departments will be asked for feedback and suggestions for modifications to the text. Since the eBook will be digital, changes can be immediately implemented. Annually, the textbook will be reviewed in accordance with the instructional matrix. Also, as an interactive resource, links and embedded resources will be checked annually. Lastly, every three years the book will be reviewed for content changes, additions, or deletions. The intention is to continuously monitor, assess and improve the materials to maximize their pedagogical benefit to the students.
September 20, 2017

Re: Letter of Support for the Affordable Learning Georgia Grant Proposal

Dear Committee Members,

As the Dean of the Colleges of Arts and Sciences, I enthusiastically support the application for the Affordable Learning Georgia low-cost-to-students textbook transformation large scale department grant submitted by Sheryne Southard as lead for her team of faculty members in the Department of Interdisciplinary Studies. The remaining faculty members on the team are Drs. Christie Burton, Xyeyu Cheng, Elnora Farmer, and Bryan LaBrecque. This grant proposal is designed to replace the existing course textbook with a low-cost book and supplemental materials. The significant reduction in the textbook costs will benefit a large number of students. The annual cost savings to students is between $69,960.75 (used books) and $93,900.21. A large proportion of our students come from low income households and are Pell Grant recipients. The consequent decrease in the cost of learning materials will lead to sustainability for reducing financial impediments to students’ ability to complete their degree and it has the potential to increase the students’ likelihood of graduation. This will enhance the Colleges’ retention, progression, and graduation of successful students.

This proposal is being submitted for TECH 3101 (Supervision for the Workforce), TECH 3104 (Ethics for Administrative and Technical Managers), TECH 3111 (Applied Ethics) and TECH 4115 (Global Technology). The aggregate student enrollment in these classes this year was 524 students. These are required courses for the 309 the Bachelor of Applied Science degree. They are also popular upper division electives for the 187 Integrative Studies majors and the 112 Legal Studies majors. The courses are offered every semester, enrollment is strong, and it is expected to continue. We believe the project is highly sustainable. The enrollment supports the grant project and the faculty have developed a plan to review and update the resources that will ensure the resources remain current.

The team of faculty members working on this project are both capable and motivated to pursue the goals of Affordable Learning Georgia. These faculty members are extremely dedicated to serving the students in the Department of Interdisciplinary Studies. They have a strong and consistent record of scholarly achievements, service to the University, and teaching performance and accomplishments.

I sincerely hope that the University is awarded this very important grant to help us execute on our long-term commitment to a successful transformation to free and online texts. Thank you for your consideration of this proposal.

Sincerely,

Nasser Momayezi
Dean, College of Arts and Sciences


www.clayton.edu
NARRATIVE
1.1 PROJECT GOALS

The goal of this project is to improve the success of the students in the Department of Interdisciplinary Studies by 1) offering no-cost and low cost books, and 2) enhancing the learning materials and curriculum to meet their individual needs. Clayton State University (CSU) is a primary black institution, where 57% of the students are Pell Grant recipients. CSU serves as an access school to many first-generation college students. The Department of Interdisciplinary Studies houses the Bachelor of Applied Science degree (B.A.S.), which offers career advancement opportunities to people who have earned their Associate of Applied Science (A.A.S.), Associate of Applied Technology (A.A.T.), other career associate degrees, or 38 hours of technical coursework. Students who have earned career associate degrees at regionally accredited institutions can bridge smoothly into B.A.S. program with little or no loss of credit. All of the students in the program are nontraditional, adult students that typically work part-time or full-time.

TECH 3101 (Supervision for the Workforce), TECH 3104 (Ethics for Administrative and Technical Managers), TECH 3111 (Applied Economics) and TECH 4115 (Global Technology) are courses in the B.A.S. program. This year 534 Clayton State University students enrolled in these classes. These students were B.A.S., Integrative Studies and Legal Studies majors. The aggregate book cost for these students ranged from $69,960.75 (used books) to $93,900.21 (new books).

The team’s goal is to improve the success of the students as follows:

Adopt: Adopt OER materials to support the learning outcomes of TECH 3101, TECH 3104, TECH 3111, and TECH 4115. This first objective is designed to 1) reduce students’ financial burden to purchase textbooks which can hinder or delay student’s ability to enroll in the course; and 2) ensure that all students have the textbook on the first day of class to increase student success.

Create: Create audio-visual instructional content to align with the OER book. The resources will be learner-centered. This second objective is designed to improve student success by customizing the materials to support the unique needs of the nontraditional student, as indicated by the body of research on the pedagogy of adult learners. It is also designed to provide stimulating learning materials that encourage students to be active and engaged learners and improve student performance.

Diffuse: Expand the use of OER student resources at CSU by mentoring faculty members in Department of Interdisciplinary Studies and assisting other faculty with the adoption and creation of no-cost or low-cost textbooks
for other upper-division courses. This fourth objective is designed to expand the cost savings to even more students. The project lead has completed an ALG transformation grant, mentored a history professor in securing an ALG and now seeks to disseminate this knowledge throughout the entire department and the University.
1.2 STATEMENT OF TRANSFORMATION

DESCRIPTION OF TRANSFORMATION

PROBLEM:

Textbook Cost:
This year 534 B.A.S. students paid an aggregate cost of between $69,960.75 (used books) to $93,900.21 (new books) for four books in the program. The used versions of two books in the program are near or in excess of $200 and the used version of another book exceeds $100. Below is summary of the cost and the student enrollment.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>New</th>
<th>Used</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 3101</td>
<td>$76.99</td>
<td>$57.75</td>
<td>195</td>
</tr>
<tr>
<td>TECH 3104</td>
<td>$167.99</td>
<td>$126.00</td>
<td>144</td>
</tr>
<tr>
<td>TECH 3111</td>
<td>$296.97</td>
<td>$217.75</td>
<td>96</td>
</tr>
<tr>
<td>TECH 4115</td>
<td>$264.52</td>
<td>$198.50</td>
<td>99</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>534</td>
</tr>
</tbody>
</table>

A large percentage of the CSU population is low-income students with financial limitations. Students are often unable to purchase textbooks in a timely fashion or not able to purchase them at all due to the high costs, lack of funding, and or delays/issues with financial aid. Other students are unable to complete the initial assignments as they have not yet purchased the book. Some even forgo purchasing the textbook, due to the cost, which can prevent them from successfully completing a course and increase their time to degree completion. “[Sixty-five percent] of students said that they had decided against buying a textbook because it was too expensive. The survey also found that 94% of students who had foregone purchasing a textbook were concerned that doing so would hurt their grade in a course.” (Senack, 2014).
The project lead, Sheryne Southard, transformed one class in the Department in round six of the ALG grant process. The following unsolicited emails were received from students after they were notified that a free open access book would be used for the class. These three excerpts from emails are representative of the sentiment of the students in the class.

“I really appreciate that you have done this. The cost of books are out of control. I have two other classes where my books cost $200 each. I wish all other professors would do this as well. Thank you and I look forward to taking this class.”

“This is great news! Thank you!”

“Thank You, I really appreciate that.”

**Unique Needs of Nontraditional Learners:**

The CSU campus is a predominantly black institution, comprised of 2,997 (45.2%) non-traditional students (age 25 and up). The average age of the CSU student is 27. Non-traditional students are frequently under-served by direct instruction due to financial, family, career or learning style preferences (Keengwe and Agamba, 2015). Non-traditional learners are often low-income and/or first-generations students whose life circumstances prohibited them from attending college immediately after high school graduation. As adult learners, they must balance family, child-care, personal expenses, and work obligations with their educational costs and obligations.

The nontraditional students have unique learning characteristics. Adult learners are more autonomous, independent, self-directed and self-reliant (Cercone, 2008). In comparison to the traditional college student, the adult learner is more actively involved in their own learning. (Knowles, 1975). The traditional higher education learning environment is in many ways, suited to toward meeting the needs of the traditional college-age student.

**TRANSFORMATION SOLUTION:**

**Adopt:** Adopt OER resources to support the learning outcomes of Tech 3101, Tech 3104, Tech 3111, and Tech 4115. The final product will be a comprehensive and appropriate extremely no cost or low-cost textbook for students. The instructors will also ascertain whether any errors (if any) or gaps are present in the materials and create supplementary learning materials as needed.

**Create:** Create audio-visual instructional materials that are aligned with the book and that are learner-centered in two ways. First, the instructional
materials will be segmented by topic or sub-topic in mini-lectures that do not exceed 6 minutes. Segmentation is a “design principle in which the learning materials are divided into short units and distributed over [a] series of instructional events, such as topics or lessons referred to as segments” (Clark, Nguyen, & Sweller, 2006). Within the context of multimedia, it involves segmenting chunks of “dynamic visualizations that have an identifiable start and end point and which are distinguished by inserting pauses between different segments” (Ibrahim, 2012). The research indicates that student engagement in the online learning environment was greater with shorter videos, 6 minutes or less, and it was maximized with videos of less than 3 minutes (Guo, Kim, & Rubin, 2014). After 6 minutes, student engagement declines significantly. This research was gathered in the largest study of its kind, which analyzed data from 6.9 million video sessions and measured student engagement. Second, utilize multimodal instructional content (e.g., videos, light board lectures, narrated PowerPoints, graphics, images, tables, and web resources) to provide the student with an engaging learning experience.

The project lead incorporated this design principle in the previously mentioned transformed course in round six of the ALG grant process. These excerpts from feedback about the segmented multi-media content are representative of the positive sentiments of the students about the transformation.

"Integrative approach in presenting the course materials. This layered approach combined great short power point lectures. I wish all online courses were presented in the style and manner ... I would be eager to sign up for any required course taught by her ... outstanding!"

“The modules you created are amazing, with the videos and the separation of each subject matter allows me to process the information more efficiently.”

“I enjoy your videos in the modules, they are not long and boring rather straightforward and to the point.”

“adapts to all learning styles, power point, short clips, scripts, live footage, ... I found it to be very helpful when understanding the material”

Diffuse: Expand the use of OER student resources at CSU by mentoring faculty members in Department of Interdisciplinary Studies by assisting other faculty in the adoption and creation of Low-Cost-to-Students textbooks for other upper-division online courses. Currently, one other popular B.A.S. course textbook (Tech 3115 - Legal Issues for Managers) has been converted to a No-Cost-to-Students textbook. If the current grant application is awarded, the B.A.S. students will have five upper-division
courses in the program that utilize OER materials, which represents 38% of the upper division course in the program. The goal is to continue with the momentum of adopting more OER materials so that the courses with the highest enrollment and/or most expensive materials in the program are converted.

**IMPACT OF THIS TRANSFORMATION ON STAKEHOLDERS AND COURSE SUCCESS:**

**Financial Support:** The adoption of the OER no or low cost textbooks will reduce student financial barriers to taking Tech 3101, Tech 3104, Tech 3111, and Tech 4115. A large proportion of the CSU students come from low income households and are Pell Grant recipients (57%). CSU serves as an access school to many first-generation college students.

The sum total of these four textbooks ranges from $600.00 (used) to $806.47 (new). The new cost of the textbooks for these four classes will be $8.99. This will result in an annual student savings of between $69,960.75 (used books) to $93,900.21 (new books) for four books in the program. This amount is significant to this program, where the students are non-traditional working adults with housing, living, childcare and many other expenses.

Full-time undergraduate students at four-year public universities spend on average $1,200 each year on books and course materials (“Quick Guide,” n.d.). The Bureau of Labor Statistics estimated that these costs increased 812% between 1978 and 2013 (Perry, 2012). The consequential decrease in the cost of learning materials will lead to sustainability for reducing financial impediments to students’ ability to complete their degree and have the potential to increase the students’ likelihood of graduation. This can improve the University’s retention, progression, and graduation rates.

Some students do not have the financial resources to purchase the textbook before the first day of class. Hence these students are at risk for falling behind and withdrawing or failing. The reduced cost textbook will ensure that all students have access to the textbook on the first day of the class and are prepared to succeed in the class.

**Student Success:** We predict that student learning outcomes will be improved in two ways. First, all students will have equal access to the high quality textbook materials on the first day of class and no longer delay or forego purchasing the textbook to the detriment of their learning. This is particularly beneficial for students taking courses in a compressed timeframe. Since the Department offers both Tech 3101 and 3104 in half session formats to help students accelerate matriculation, delaying book purchases in these courses is cumulatively detrimental.
When students have their books on the first day, they will be able to complete the first modules, quizzes and assignments.

Second, the audio-visual instructional materials that are created to align with the book will support student success. As the research indicates, the segmentation of the instructional content in lectures that do not exceed 6 minutes will improve student engagement and retention. Also the utilization of multimodal instructional content (e.g., videos, light board lectures, narrated PowerPoints, graphics, images, tables, and web resources) will provide the students with an engaging learning experience. Both of these strategies are designed to improve student engagement, performance and success.

**Short-term vs. Long-term Impact:** In the short term, the 534 students that enroll in Tech 3101, Tech 3104, Tech 3111 and Tech 4115 are the primary stakeholders. These are required courses for the 309 B.A.S. program majors and multiple sections are offered each semester. These classes are also popular upper division electives for the 187 Integrative Studies majors and the 112 Legal Studies majors. So the potential reach of the impact is an additional 299 students at CSU.

In the long term, all students in the Integrative Studies, Bachelors of Applied Science, Liberal Studies, and Online Liberal Studies will benefit from the adoption of the four additional low-cost or no-cost textbook options in the Department. The goal is to continue to expand the use of OER resources throughout the department to create a culture of learner-centered education.

**IMPACT ON THE COURSE, PROGRAM, DEPARTMENT, INSTITUTIONS, ACCESS INSTITUTION, AND/OR MULTIPLE COURSES:**
**Faculty:** Faculty members within the department and college of arts and sciences will also be impacted. The grant recipients will diffuse the knowledge and experience that they gain through the transformation project to fellow faculty members. As previously indicated, over 45% of the CSU student body are nontraditional students and the percentage in the department of interdisciplinary studies is even greater. The grant will allow the recipients to adopt OER resources, customize learning materials to improve the learning outcomes of the nontraditional students and assess the results. The recipients will then conduct workshops at the department-level, and the university-level and present at a state or national academic conferences to disseminate this knowledge to faculty that teach this same demographic.
Department and College:
The decrease in the cost of learning materials will reduce financial impediments to students’ ability to complete their degree. This has the potential to increase student graduation rates and decrease time to graduate. Research has shown that providing free instructional materials can improve student performance and retention rates (Hilton and Laman, 2012). Also, the goal is to increase the number of classes in the department that adopt OER learning materials. The option of a low-cost or no-cost textbook and a free interactive workbook is an attractive feature that the department will market to increase enrollment, which benefits the department and the college.

University:
This grant application is in alignment with the first strategic priority of the Clayton State University strategic plan through 2022: “increase enrollment, retention, and graduation rates”. One of the strategies outlined in the plan is to accomplish this is increase receipt of external grants and “develop recognition and support systems to reward faculty and staff for innovations in teaching, research and service that support the institution’s strategic priorities.”
1.3 TRANSFORMATION ACTION PLAN

The proposed transformation will take place in the stages outlined below:

Identify & Review


Next, utilizing the criteria developed by Affordable Learning Georgia (clarity, comprehensibility, readability, content and technical accuracy, adaptability, appropriateness, and accessibility), each faculty member will evaluate the strength and weaknesses and ascertain that the resources are aligned with all course learning objectives. Then they will identify whether any gaps are present or whether any areas require updates and supplements and ensure that all materials comply with the System’s copyright policy.

Create

- Sheryne Southard will work with each faculty member to create segmented multi-media content to align with their respective OER selections. Examples of materials that may be developed include, but are not limited to light board lectures, narrated PowerPoint lectures, and video lectures. Sheryne Southard has extensive experience in this area and she has received seven national and state awards for her work in the creation of multi-media instructional content across disciplines.

- Christie Burton, Elnora D. Farmer, Xueyu Cheng, and Bryan LaBrecque will create, collect, produce, and organize supplementary learning materials for the textbook. They will also write multiple-choice unit exams, to be used in assessing students’ learning of the course major units. They will also incorporate the text into their learning management system (Brightspace) with emphasis on learning analysis, learning objective and analysis of instructional content, alignment of instructional, overall assessment of the initiative. The course and syllabus and online platform will be redesigned to suit the transformation. The course learning objectives, as described in the syllabi, will remain the same.
Assess
Sheryne Southard will gather baseline qualitative and quantitative data for assessing the project’s transformative impact. After the courses are launched, the team will conduct student surveys to evaluate the quantitative and qualitative impact. Constructive feedback will be reviewed and the team will discuss any revisions that are necessary to improve the outcomes. The final report will then be published.

Diffuse:
After the team has assessed the project results, they will report the outcomes to the Department in an effort to expand the use of OER student resources. The Department Head will disseminate this information at the monthly department heads meeting to encourage larger participation in an effort to remove obstacles to graduation throughout the entire University.

Roles:
Sheryne Southard, J.D. is responsible for 1) assisting each faculty member with the development and selection of instructional resources and materials; 2) creating the materials to encourage student participate in the data collection process; 3) overseeing the qualitative and quantitative data collection process for Tech 3101, Tech 3104, Tech 3111 and Tech 4115; and 4) completing the semester and final reports. Sheryne Southard is a Professor of Legal Studies and Coordinator of Online Programs in the Department of Interdisciplinary. She has been recognized significantly for her contributions in the area of distance education. In 2017, she was awarded third place in the National Softchalk Lesson Competition. In 2017, 2015 2014, she received honorable mention awards the same competition. In 2015, she received the Georgia Board of Regents’ Excellence in Online Learning Award. In 2010, she received the Georgia Board of Regents’ Scholarship of Teaching and Learning Award. In 2009, she won the grand prize for the AAfPE Pearson-Prentice Hall Online Teaching Competition. She has researched and published extensively in the areas of asynchronous distance education pedagogy, quality assurance standards, faculty training and best practices.

Christie Burton, EdD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3101. She is a Zell Miller Governor’s Teaching Fellow, a Partnering Academics and Community Engagement (PACE) and Problem-Based Learning (PBL) certified instructor at CSU and serves on the board of the International Society for Exploring Teaching and Learning (ISETL). She has been teaching management courses for over twelve years and produced many works in the area of Scholarship of Teaching and Learning (SoTL).
Elnora D. Farmer is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3104. She started her career in the areas of finance and accounting working as a financial analyst intern at NCR Corporation and as an officer and associate portfolio manager at Bank One, NA, now J.P. Morgan Chase. During her tenure in banking, she had the opportunity to work under both the retail and commercial areas of the institution. She is a Lecturer in the BAS program. She has served as an Editorial Board Member for Scientific and Academic Publishing, and is a reviewer and contributor for several publishers including Pearson. Her research interests include financial literacy and entrepreneurship, labor economics, financial institutions and online and distance learning pedagogy.

Xueyu Cheng, PhD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 3111. She is an assistant professor of economics for the BAS program. Before joining Clayton State University, she was an assistant professor of Economics at Alabama State University. She received her Ph.D. in Economics from the Ohio State University. Her research focuses on the gender and racial issues in educational attainment and labor market outcomes. She also specializes in statistical modeling and conducts empirical research on economic and social issues such as bottle bills, demand for electricity, unemployment in the Black Belt region, and corruption. Her research has been published in journals including International Journal of Happiness and Development, The Journal of Developing Areas, Journal of Economics and Economic Education Research, IFRSA Business Review, ASBBS E-Journal, Review of Business Research, International Journal of Reliability and Safety, The International Journal of Advanced Manufacturing Technology, and Journal of Materials Processing Technology. Dr. Cheng has taught courses in Economics, Statistics, Business Mathematics, Accounting, Finance, Business Ethics and Operations Management.

Bryan LaBrecque, PhD is responsible for the identification, review, selection and creation of instructional materials and assessment of the transformation project for Tech 4115. He has been a full-time faculty member at Clayton State University since 2008. He is currently the Director of the CSU Fayette Instructional Site as well as the coordinator of the Bachelor of Applied Sciences (BAS) degree program. In conjunction with those duties, he teaches numerous TECH courses - including a suite of Aviation Administration courses - as well as courses in both Business and Political Science. Along with his duties as a full-time assistant professor, Bryan also directs the operations at Atlanta Regional Airport at Falcon Field, in Peachtree City, GA. A mechanical engineering graduate of Georgia Tech, he has spent the majority of his professional career in the field of aviation. Starting as a flight sciences engineer for Lockheed's famous
‘Skunk Works’, he moved to Delta Air Lines and spent 27 years in various positions including power plant maintenance, aircraft performance engineering, fleet planning, marketing, and strategic planning (M & A). Following Delta’s acquisition of Atlantic Southeast Airlines (ASA), he moved over to assume the position of Chief Operating Officer where he directed operations of over 900 flights per day.
1.4 QUANTITATIVE AND QUALITATIVE MEASURES

Qualitative Measures

The effectiveness of the transformed low-cost materials will be examined with qualitative and quantitative measures. To encourage full participation, the instructors will develop a video explaining the importance of the survey and soliciting their full and complete participation and feedback.

Students in the Fall 2017 and Spring 2018 sections will complete a survey at end of the semester that contains open-ended questions designed to solicit feedback about the current course materials (usefulness and access) and student satisfaction. Students in the Summer 2018 sections will complete the same survey at the end of the semester assessing the transformed open-access course materials. Narrative and critical feedback received from the students in the Fall 2017 and Spring 2018, will be compared against the feedback from the Summer 2018. The anonymous survey tool in D2L will be used.

Quantitative Measures

Students in the Fall 2017 and Spring 2018 sections will complete a survey that contains questions asking them to rate (using a Likert scale) the current course materials in the areas of accessibility, comprehensiveness, effectiveness, cost, and cohesion. Students in these sections will complete the same survey assessing the transformed open-access course materials. Scores for the survey of the current and transformed course materials will be compared. The anonymous survey tool in D2L will be used.

Since the instructors have observed a decline in student performance during the first few weeks of school because of students' untimely purchase of the book, the grades for the first two assessments of the Fall 2017 and Spring 2018 sections will be compared with the first two assessments of the Summer 2018 sections. The statistics feature of D2L will be used.

Course grade distributions and Drop/Fail/Withdraw (DFW) rates under the original and transformed formats will also be compared from the period before and after the adoption of the free interactive book.
1.5 **TIMELINE**

**November 6, 2017:** Attend the kick-off meeting at Middle Georgia State College. Knowledge obtained from kick-off meeting

**November 2017:** Identify, review, assess and select a primary text. Gather baseline qualitative and quantitative data from the Fall 2017 section for assessing the project’s transformative impact.

**January - May, 2018:** Create audio-visual content to align with the OER selection. Create, collect, and organize supplementary learning materials for the textbook. Develop master syllabi and master D2L courses. Gather baseline qualitative and quantitative data from the Spring 2018 section for assessing the project’s transformative impact. Complete semester end report.

**June - July, 2018:** Full adoption of new course materials. Survey students for quantitative and qualitative measures of impact and publish the final report.

**August 2018:** Results will be shared with the Department and College to encourage larger participation. An article about the project will also be published in the Department newsletter.
1.6 BUDGET

The budget for this proposal is $25,800, as enumerated below:

- Sheryne Southard overload: $5,000
- Christie Burton overload: $5,000
- Xuey Yu Cheng overload: $5,000
- Elnora D. Farmer overload: $5,000
- Bryan LaBrecque overload: $5,000
- Travel to kick-off meeting: $800
- Total: $25,800

We are requesting $5000 for each team member. This amount will be divided between two semesters for the overload at $2,500 each semester. We also request $800 for registration and travel expenses for two of the team members to attend the kick-off meeting. This amount would be split evenly with $400 for each professor to cover travel to the kick off meeting. Any remainder will be used for fees for copying and/or copyright and to offset.
1.7 SUSTAINABILITY PLAN

Sustainability Plan: The adoption of the open-source text will begin in Summer 2018. Other faculty members in the Departments will be asked for feedback and suggestions for modifications to the text. Since the eBook will be digital, changes can be immediately implemented. Annually, the textbook will be reviewed in accordance with the instructional matrix. Also, as an interactive resource, links and embedded resources will be checked annually. Lastly, every three years the book will be reviewed for content changes, additions, or deletions. The intention is to continuously monitor, assess and improve the materials to maximize their pedagogical benefit to the students.
1.8 REFERENCES & ATTACHMENTS


TECH 3111 – Applied Economics  
Course Syllabus – Summer 2018

Disclaimer: This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the professor reserves the right to modify, supplement and make changes as the course needs arise.

Instructor Information:

Dr. Xueyu Cheng
Office: Faculty Hall, Room 131C  
Phone: (678) 466-4893  
E-mail: xueyucheng@clayton.edu  
Personal Website: http://faculty.clayton.edu/xcheng

Office Hours:

Online Office Hours: Fridays 2:00 PM-5:00 PM  
On-Campus Office Hours: By Appointment

Course Description:

This survey course in economics provides the learner with the knowledge and tools essential for economic literacy and understanding of basic economic principles. Students will be evaluated via examinations, quizzes, and a term paper.

- Emphasis is placed on the economic way of thinking to enable an understanding of economic behavior and choices.
• The core of microeconomic analysis is focused on the role of market supply and demand in determining prices. Production costs are introduced. The price and output decisions in various market structures are analyzed and compared.

• The study of macroeconomics covers the aggregate economy and fiscal policy, and investigates the Federal Reserve System and the role of money in the economy.

• Core international economic issues are also covered.

A grade of C or higher is required for this course to count toward graduation in BAS program.

Number and Title:

TECH 3111 Applied Economics

Credit Hours:

3.0 semester credit hours (3-0-3)

Catalog Description:

This course is a study of commerce and economics and their impact on society, technology, and business. This course will cover basic commerce and economics terminology and concepts important to managers. This course is not open to BBA students and will not count toward a BBA. (Not open to students with credit for ECON 2105 and ECON 2106.)

Course Prerequisites and Co-requisites:

Prerequisite:

• Junior Status.
• Math 1101 or higher

Co-requisite: None

NOTE: It is the student's responsibility to drop this course during the drop/add period if he or she has not properly satisfied the prerequisite/co-requisite requirements. If the student has not satisfied the prerequisite/co-requisite requirements and does not drop the course during the drop/add period, the instructor will advise the registrar's office to drop the student from the course. The student will receive a grade of "W" and no refund will be given. The student alone will be responsible for any loss of funds or financial aid that may result.

Course Learning Outcomes:

At the end of the course, each student will:

• **Course Outcome 1**: Recognize, define, analyze, and provide illustrations of microeconomic and macroeconomic terminology, theory, principles, and concepts.
• **Course Outcome 2**: Comprehend the micro-economy and analysis of market models, consumer behavior, and production costs.

• **Course Outcome 3**: Comprehend the workings of the macro-economy and fiscal policy, money and banking and the monetary system, and the effects of the international economy.

• **Course Outcome 4**: Critically analyze and evaluate issues, components, and implications of real-life economic problems and opportunities by applying economic concepts, principles, and theory.

• **Course Outcome 5**: Exhibit critical thinking and written communication skills through case study analysis and paper writing.

**Textbook Information:**


The electronic textbook is free and is available at [www.openstax.org/details/principles-economics](http://www.openstax.org/details/principles-economics). You can also order a print copy at the university bookstore.


**Course Format:**

1) This class is 100% online, so there are no class meetings. However, please confirm class participation by completing the on-line participation assignments as directed in the Content area in Desire2Learn. Students are required to participate in on-line class activities in a timely and contributory manner. Desire2Learn activities include Content Areas, assignments, discussion postings, mail messages, and assessments. See the course schedule for specific due dates for assignments, quizzes, and tests. Additional assignments, such as discussions, may be posted throughout the semester. Please complete the virtual orientation located under Content to get started with the course.

2) Students are expected to respond to any open Discussions posted by the instructor in the DISCUSSIONS portion of D2L. All discussions are learning opportunities to share among your fellow classmates. As such, responses should be detailed and thought provoking. A response such as “I agree” would not be contributory. Students should be prepared to support their positions with information and sources as appropriate.

**E-Mail Accessibility and On-line Feedback:**

Please use the Desire2Learn Mail feature for all class-related e-mail messages. If you are unable to access Desire2Learn, please use the CSU e-mail address listed above. All e-mails will be answered within one business day unless notified otherwise by the instructor.

All on-line work (assignments, quizzes, discussions, and assessments) will be graded within one week of the due date unless otherwise indicated by the instructor.
Participation Requirement:

This class is 100% on line, so there are no class meetings. Course modules will be assigned on a weekly basis according to the Course Schedule and include objectives, a lesson guide and expectations for completing homework assignments. You are expected to actively participate in all aspects of the course. This includes completion of assigned readings, homework assignments, and tests or quizzes and participation in online discussions. Course weeks run Monday through Sunday, with Sunday at 11:59:59 p.m. Eastern Time as the deadline for making posts and submitting the week's assignments. All work assigned during the weekly course module(s) must be turned in by this deadline; late work will not be accepted. It is suggested that you read through all course content in the week's assigned module(s) to get a feel what is expected during the course week and to help you plan your time wisely.

Course Requirements:

Students must satisfactorily complete all of the following items in order to earn a passing grade in the course, regardless of grades earned on tests and quizzes:

1. Each student will complete and submit the no-show assignments by the assigned due date.
2. Each student will complete all course assignments satisfactorily using the method prescribed by the instructor.
3. Each student will complete the required number of tests and quizzes with an average grade of at least 60 percent.
4. Each student will actively participate in on-line class activities.

Desire2Learn records all mail, discussions postings, and assessments for the course. This gives the instructor a permanent record of the frequency and content of each student’s on-line participation.

Additional Course Expectations:

Students should monitor their CSU student e-mail accounts and D2L for this course at least every other day to ensure timeliness in receiving information and responding as directed. Students are responsible for any messages sent to the class or to the student individually using the CSU student e-mail system or D2L for this course.

Students should closely monitor grades and academic records. Argument for grades must be made within 48 hours after the grades are posted in D2L.

Using LockDown Browser for Online Exams

This course requires the use of LockDown Browser for online exams. Watch this short video to get a basic understanding of LockDown Browser and the optional webcam feature (which may be required for some exams).

Then download and install LockDown Browser from this link:

http://www.respondus.com/lockdown/download.php?id=121412292
To take an online test, start LockDown Browser and navigate to the exam. (You won't be able to access the exam with a standard web browser.) For additional details on using LockDown Browser, review this Student Quick Start Guide (PDF).

Finally, when taking an online exam, follow these guidelines:
- Ensure you're in a location where you won't be interrupted
- Turn off all mobile devices, phones, etc.
- Clear your desk of all external materials — books, papers, other computers, or devices
- Remain at your desk or workstation for the duration of the test
- LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

Demo Test Requiring the Use of Lockdown Browser

To ensure your first exam using LockDown Browser runs smoothly, please take the ungraded practice quiz in the Quizzes area in D2L. It is available throughout the semester, with unlimited attempts.

Assessments:

Students will be evaluated via tests, quizzes, and a term paper.

No-Show Assignments: please confirm class participation by completing the on-line participation assignments as directed in “Getting Started” in the Content area in Desire2Learn.

Tests: Three tests will be given. The third test serves as the final examination, and is comprehensive. You are allowed to use the comprehensive final exam to replace ANY of the first two tests. Students will have a specific length of time to complete each test. Penalties will be imposed for late submissions. Your grade will be reduced by 1 point for each minute your test exceeds the time limit.

Quizzes: Each chapter has one quiz that is to be completed in D2L by the suggested due date and time shown on the course schedule. There will be 21 quizzes. These quizzes are designed to assist the student in preparing for the three semester exams and will therefore focus on the primary concepts within the chapters. The quizzes will be offered with three attempts with the average grade recorded. Please be sure to check the number of available attempts for each quiz and take them as many times as offered. As a general rule, no make-up quizzes will be allowed. Students may complete the quizzes at any time during the open days.

On-line Discussions: Four discussions in the DISCUSSIONS portion of D2L will be graded. In order to receive full credits for a discussion, you must initiate a post to answer the discussion question and reply to at least TWO other class members with substantive thoughts. Please initiate a post at least one week before the assignment due day, giving your peers enough time to read, think and reply to your post.

Term Paper: There will be one homework writing assignments from the Freakonomics book. The assignment will be mandatory and count for 100 points towards the final grade. The writing assignment should be prepared in Microsoft Word and submitted through the D2L software. Please format your term paper according to the APA style at http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx. Instructions for writing the papers, as well as the grading rubric, will be provided in the assignment notes.
Extra Credits

The last five questions of each test are bonus questions, offering up to 10 extra credits. Students can earn up to 20 bonus points by completing the pretest and posttest. Pretest and posttest do not affect your final course grade. We use the information to evaluate the effectiveness of the course. You can also earn 10 extra credits by completing a survey on textbook cost at the end of the semester.

Make-Up Policy and Lateness Penalty

The assessments will be given at scheduled on-line periods in Desire2Learn. Homework assignments and tests will be due no later than 11:59 pm on the due date. Since it is not in students’ best interests to get behind in the course schedule, exceptions to the following policies will be granted only in extreme cases with a verifiable physician’s note, court document or other written excuse from a competent authority. Such decisions are at the sole discretion of the instructor.

1) No makeup opportunities will be granted for No-Show assignments.

2) On-line Discussions will be locked after the due days. No makeup opportunities will be granted for discussions.

3) Quizzes are accessible throughout the semester until the midnight of Monday July 23, 2018. This is intentional so students can return to the quizzes and use them to review for the tests.

4) Due day for the Freakonomics assignment is suggested, but not required. However, submissions after the suggested due day may cause delay in reporting your final grade.

5) Three tests will be given on line. Unless appropriate documentation is provided, no early tests or makeup tests will be given. If you fail to make up a test within one week of the test due day, you will be required to take a comprehensive exam in the last week of the semester to make up any missing tests. No makeup opportunities will be granted for the third test. The tests will be available on line for a designated three-day period. Students may complete the tests at any time during the three-day period. Students will have a specific number of minutes to complete each test.

6) Missing assignments will be assigned a grade of zero.
Evaluation:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Tests: 3 exams @ 100 pts.</td>
<td>300</td>
</tr>
<tr>
<td>On-line Quizzes: 17 quizzes</td>
<td>195</td>
</tr>
<tr>
<td>On-line Discussions: 4 Discussions @ 25 pts.</td>
<td>100</td>
</tr>
<tr>
<td>Freakonomics Assignment (mandatory)</td>
<td>100</td>
</tr>
<tr>
<td>No-Show Assignment</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>725</strong></td>
</tr>
</tbody>
</table>

The evaluation method is subject to change at the discretion of the instructor. Additional assignments may be given.

Grading Scales:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage Range</th>
<th>Point Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90%-100%</td>
<td>653</td>
</tr>
<tr>
<td>B</td>
<td>80%-89%</td>
<td>580</td>
</tr>
<tr>
<td>C</td>
<td>70%-79%</td>
<td>508</td>
</tr>
<tr>
<td>D</td>
<td>60%-69%</td>
<td>435</td>
</tr>
<tr>
<td>F</td>
<td>Below 60%</td>
<td>0</td>
</tr>
</tbody>
</table>

Determination of your letter grade will strictly follow the above grading scales. Your percentage grade will be rounded to the nearest hundredth. If you do not meet the minimum percentage or point requirement, your letter grade will NOT be moved up to the next grade level.
Mid-term Progress Report:

The mid-term grade in this course reflects approximately 30% of the entire course grade. Missed self-paced assignments suggested to be completed before the mid-point of the semester will adversely affect your mid-term grade. Based on this grade, students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, or withdraw on-line using the Swan by mid-term, which occurs by June 22, 2018.

The last day to withdraw without academic accountability is Friday, June 22, 2018.

Computer/Technology/Materials Requirements:

You are required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for your academic program. For further information on CSU’s Official Notebook Computer Policy, please go to http://itpchoice.clayton.edu/policy.htm.

Required Technology Skills:

Students enrolled in this course should possess the following technology skills:

- The ability to access information via the Internet
- The ability to use GeorgiaView/D2L and associated tools, including discussion boards, chat rooms, online testing and assignment submission features
- The ability to use word processing software and to save in alternate formats
- The ability to send, receive and include attachments using email
- The ability to demonstrate netiquette (appropriate online conduct)

E-mail and Internet competency are assumed as stated in the Academic Catalog in the section about on-line instruction. Students should not register for on-line courses unless they are already thoroughly competent at sending and receiving e-mail, navigating the Internet, and using Windows-based programs. No class time will be spent on basic computer instruction. Students should be aware that taking on-line classes requires excellent time management skills and good self-discipline.

Software

1. To properly access the course content, students need to download the following free software:

   - The latest version of Java at www.java.com
   - The latest version of Adobe Reader at http://get.adobe.com/reader/
   - The latest version of Flash Player at http://get.adobe.com/flashplayer/
2. Students are required to have Microsoft Office installed on their notebook computers. This is available as part of the technology fee assessed to each student. To schedule installation, see http://www.clayton.edu/hub.

In-class Use of Student Notebook Computers:

Since this section is 100% on line, no in-class use of computers will be required. However, all students must have access to the Internet as discussed above under computer requirements.

Technical Support:

All on-line activity will take place in Desire2Learn, the virtual classroom for this course. If needed, students may get individual help with Desire2Learn in Student Software Support Services located in the lower level of the library building.

To gain access to Desire2Learn, sign on to the SWAN portal and select “GaVIEW” (yes, that is correct) on the top right side of the screen. If you experience any difficulties in Desire2Learn, please visit http://www.clayton.edu/hub. You can email or call the HUB at Hub@mail.clayton.edu or (678) 466-HELP. You will need to provide the date and time of the problem, your SWAN username, the name of the course that you are attempting to access, and your instructor's name.

Before you can log into Desire2Learn, you must activate your Clayton State University e-mail account. In addition, in order to use Desire2Learn effectively, each student must have his or her computer configured correctly. You may want to use the “Check Browser” feature in Desire2Learn. Please be aware that if your computer is not configured properly, you may not be able to see everything that the instructor has included in Desire2Learn for this course. You also may not be able to submit assignments or take evaluations. Students frequently have difficulty using Desire2Learn if they have a pop-up blocker running on their computers. This feature must be disabled to allow Desire2Learn to function properly. Another common problem is that students do not have the latest version of Java installed on their computers. It is each student’s responsibility to verify that his or her computer is configured correctly for Desire2Learn.

Desire2Learn will be unavailable during scheduled maintenance times. Please note the list of scheduled Desire2Learn maintenance times and plan your Desire2Learn activities accordingly.

Please note that there is a paging feature included in Desire2Learn, but we will NOT be using that feature in this course. If you send me a page, I will not receive it. Please contact me using the Mail feature in Desire2Learn for all communications about this course.

General Policy

Students must abide by policies in the Clayton State University Student Handbook, and the Basic Undergraduate Student Responsibilities. The Student Handbook is part of the Academic Catalog and Student Handbook, which begins on page 6.

University Attendance Policy

Students are expected to log in and participate as part of their learning in the course. Instructors establish specific policies relating to absences in their courses and communicate these policies to the students through the course syllabi. Individual instructors, based upon the nature of the course, determine what effect excused and unexcused absences have in determining grades and upon students' ability to remain enrolled in their courses. The university reserves the right to
determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

**University NO SHOW Policy**

It is very important that all students get off to a strong start each semester by attending class during the first week (no later than the second week) of class. A student who does not attend by the posted deadline on the academic calendar must be reported to the Registrar as a NO SHOW.

Student registration in the class will be cancelled for all NO SHOW students. There may be serious financial aid consequences for students because their number of enrolled credit hours will be reduced.

Please see the course document titled “NO SHOW Policy” located on the course home page in Desire2Learn for more details and directions on what to do if you are mistakenly reported as a NO SHOW or if you want to appeal a NO SHOW report.

For this 100% on-line course, attendance for purposes of the NO SHOW policy is determined as described below under “Course Attendance Policy.”

**Course Attendance Policy**

Students are expected to access the online course materials and participate in the required discussions, activities and assignments. Course tracking can be used to assess the amount of “attendance” in an online course. Any student who fails to attend the orientation session or complete a scheduled assignment during the first week of class will be reported to as a “No Show”.

1) This class is 100% on line, so there are no class meetings. However, students must confirm class participation by completing the on-line participation assignments as shown in the course schedule located at the end of this syllabus. These no show assignments replace first physical attendance in a face-to-face class. Students who do not complete these assignments will be reported as NO SHOWS.

2) Since this is a 100% online course, “attendance” will not be taken in the traditional sense. However, students should check the course in Desire2Learn at least every other day for any new information posted by the instructor. Course attendance includes reading communications from the instructor (Discussion Postings, Announcements, and Mail messages), replying to those postings if requested, completing quizzes and tests on time, and submitting assignments on time. Failure to attend to these activities by the due dates will result in reduced grades (including grades of zero) as described under “Missed Work” below.

3) Students who do not participate in on line activities for three weeks will be considered to have excessive absences and will be subject to withdrawal from the course. Exceptions may be granted with a verifiable physician’s note, court document, or other written excuse from a competent authority, at the sole discretion of the instructor.

**Academic Dishonesty**

Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. The most common forms of academic misconduct are cheating and plagiarism. All instances of academic dishonesty will result in a grade of zero for the work involved. All instances of academic dishonesty will be reported to the Office of Community Standards. Judicial procedures are described beginning on page 19 in the section of the Academic Catalog.
and Student Handbook titled, Procedures for Adjudicating Alleged Academic Conduct Infractions.

**Plagiarism Detection Software**

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. You should submit your papers in such a way that no identifying information about you is included.

**Disruption of the Learning Environment**

Behavior which disrupts the teaching–learning process during class activities will not be tolerated. While a variety of behaviors can be disruptive in a classroom setting, more serious examples include belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or behavior while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF. More detailed descriptions of examples of disruptive behavior are provided in the Clayton State University Academic Catalog and Student Handbook starting on page 14.

**Center for Academic Success:**

Students are encouraged to visit Clayton State’s Center for Academic Success (CAS). CAS offers a variety of personalized academic services to all Clayton State University students, including staff, and peer tutoring in a variety of subjects and multimedia instruction. CAS tutors not only can help students understand the content of their classes, but also can help them develop the skills and strategies necessary to continue learning throughout their lifetimes. CAS Hours and phone number are listed on their website at http://www.clayton.edu/cas.

**Writing Assistance**

The goal of the Writers’ Studio is to give rise to better writers, not just to better writing. People who love to write, people who struggle mightily with it, and people who fall anywhere else on the spectrum can find a place at The Writers’ Studio—a place for students to come for writing guidance and feedback.

Each student may receive up to 90 minutes of assistance per day and 3 hours per week. Furthermore, both appointments and walk-ins are welcome. Here’s The Writers’ Studio’s contact information:

- **Location:** Arts & Sciences Building, Room G-224
- **Phone:** 678.466.4728
- **Email:** ws224@clayton.edu
- **Website:** http://clayton.edu/writersstudio

Visit The Writers’ Studio at http://clayton.edu/writersstudio or schedule your appointment online at http://clayton.mywconline.com (Note: first-time users need to complete a one-time registration prior to using the online appointment website).
In Case Of Campus Emergency:

If there is an emergency on campus, please contact the Clayton State University Department of Public Safety. They are fully trained for emergency responses and will contact 911 if necessary. The CSU Department of Public Safety can be reached by dialing 770-961-3540. Please program this number into your cell phone. You can also use one of the Emergency Blue Light Network phones located around campus. To activate one of the Blue Light phones pick up the phone and press the black button. You will automatically be connected to the University Police Communications Center.

University Policy on Course and Instructor Surveys:

After midterm Clayton State University will remind you to complete two surveys for this course: the course survey and the instructor survey. Both of these will be available through the DUCK. Failure to complete the surveys during the given time frame will mean that you will not be able to see your final grade for this course on the DUCK until approximately two weeks after the semester ends.

Online Etiquette (Netiquette)

Discussion, chat, and e-mail spaces within this course are for class purposes only, unless otherwise stated. Please remember to conduct yourself collegially and professionally. Unlike in the classroom setting, what you say in the online environment is documented and not easily erased or forgotten.

The following guidelines apply:

- Avoid using ALL CAPS, sarcasm, and language that could come across as strong or offensive.
- Use proper punctuation, grammar and be sure to edit your contribution before posting.
- Read all postings before posting your responses to discussion topics so as to not unnecessarily repeat information.
- Keep chat comments brief and to the point.
- Focus on one topic at a time when chatting or posting to discussions.
- Remember that unlike in face-to-face learning environments what you say in discussions and chats is documented and available to be revisited. Choose your words and discussion topics carefully.
- E-mail should only be used for messages pertaining to the course. Please refrain from sending forwards, jokes, etc. within e-mail.
Course Schedule:

TECH 3111 Applied Economics

Summer 2018

100% Online

The schedule is subject to change at the discretion of the instructor. Additional assignments may be given. You may omit all chapter appendices in the text. All submissions are due by the midnight of the due day.
<table>
<thead>
<tr>
<th>Week #</th>
<th>Monday Date</th>
<th>Topics Covered</th>
<th>Assignments</th>
<th>Due Day</th>
</tr>
</thead>
</table>
| Week 1 | May 21      | Course Introduction  
Chapter 1: Welcome to Economics!  
Chapter 2: Choice in a World of Scarcity | 1. Read the syllabus and submit the Student Agreement located in the Dropbox in Desire2Learn according to the instructions in the document (No-Show Assignment #1) – 10 points  
2. Please go to Discussion Board / Getting Acquainted, and introduce yourself to the whole class. Please note that all students can view your posts in the discussion board. You may not want to post private/sensitive information in discussion board (No-Show Assignment #2) - 10 points  
3. Please complete the pretest – 10 extra points  
4. Read Chapters 1 and 2, and finish Quizzes 1 and 2 in Desire2Learn - 10 points each | 1. Sunday May 27  
2. No-Show Assignments: NOON Wednesday May 30. Students should complete the no-show assignments by the required due days. Under no circumstances will students be allowed to make up no-show assignments. |
| Week 2 | May 28      | Chapter 3: Market Demand and Supply  
Section 3.5 NOT Covered  
Chapter 5: Elasticity  
Topics NOT Covered: Can Costs Be Passed on to Consumers?  
Elasticity and Tax Incidence  
Long-Run vs. Short-Run Impact  
Elasticity in Labor and Financial Capital Markets  
Expanding the Concept of Elasticity | 1. Read Chapters 3 and 5, and finish Quizzes 3 and 5 in Desire2Learn - 15 points and 10 points respectively  
2. Complete DISCUSSION 1 “Should the government raise the federal minimum wage?” - 25 points  
3. Students not “attending” class by Wednesday May 30 will be withdrawn from the class according to University policy. Completion of at least one of the No-Show assignments 1-3 satisfies the attendance requirement for this 100% on-line class. | Sunday June 3 |
<table>
<thead>
<tr>
<th>Week #</th>
<th>Monday Date</th>
<th>Topics Covered</th>
<th>Assignments</th>
<th>Due Day</th>
</tr>
</thead>
</table>
| **Week 3** | **June 4**  | Chapter 7: Cost and Industry Structure              | 1. Read Chapters 7 and 8, and finish Quizzes 7 and 8 in Desire2Learn - 15 points and 10 points respectively  
2. **TEST ONE** on Ch. 1-3, 5, 7 and 8 in Desire2Learn (Friday June 8 to Sunday June 10). Students may take the test once during this time period. Time limit is 120 minutes | Sunday June 10           |
|         |             | Chapter 8: Perfect Competition                      |                                                                                                                                                                                                             |                          |
| **Weeks 4** | **June 11** | Chapter 9: Monopoly                                  | 1. Read Chapters 9 and 10, and finish Quizzes 9 and 10 in Desire2Learn - 10 points and 15 points respectively  
2. Complete **DISCUSSION 2** “Do you support the Patient Protection and Affordable Care Act (Obamacare)?” - 25 points  
3. **JUN 12-21 MIDPOINT grade reporting period**                                                                 | Sunday June 17           |
|         |             | Chapter 10: Monopolistic Competition and Oligopoly   |                                                                                                                                                                                                             |                          |
| **Week 5** | **June 18** | Chapter 19: The Macroeconomic Perspective           | 1. Read Chapters 19 and 20, and finish Quizzes 19 and 20 in Desire2Learn - 15 points each  
2. **JUN 12-21 MIDPOINT grade reporting period**  
3. **Friday June 22 is the last day to withdraw without academic accountability.**                                                                 | Sunday June 24           |
|         |             | Chapter 20: Economic Growth                          |                                                                                                                                                                                                             |                          |
| **Week 6** | **June 25** | Chapter 21: Unemployment                            | 1. Read Chapters 21 and 22, and finish Quizzes 21 and 22 in Desire2Learn - 10 points each  
2. Complete **DISCUSSION 3** “Should employers be required to pay men and women the same salary for the same job?” - 25 points  
3. **TEST TWO** on Ch. 9, 10, and 19-22 in Desire2Learn (Friday June 29 to Sunday July | Sunday July 1             |
<p>|         |             | Chapter 22: Inflation                                |                                                                                                                                                                                                             |                          |</p>
<table>
<thead>
<tr>
<th>Week #</th>
<th>Monday Date</th>
<th>Topics Covered</th>
<th>Assignments</th>
<th>Due Day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1). Students may take the test once during this time period. Time limit is 120 minutes</td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>July 2</td>
<td>Chapter 24: The Aggregate Demand/Aggregate Supply Model</td>
<td>1. Read Chapter 24, and finish Quiz 24 in Desire2Learn- 10 points  2. <strong>FREAKONOMICS assignment due in D2L (Mandatory)</strong></td>
<td>Sunday July 8</td>
</tr>
</tbody>
</table>
| Week 8 | July 9      | Chapter 27: Money and Banking  
Chapter 28: Monetary Policy and Bank Regulation | 1. Read Chapters 27 and 28, and finish Quizzes 27 and 28 in Desire2Learn- 10 points each  
2. Complete **DISCUSSION 4 “Should the U.S. build a wall along the southern border?”**- 10 points | Sunday July 15 |
| Week 9 | July 16     | Chapter 30: Government Budgets and Fiscal Policy  
Chapter 33: International Trade | 1. Read Chapters 30 and 33, and finish Quizzes 30 and 33 in Desire2Learn- 10 points each  
2. Please complete the posttest – 10 extra credits | Sunday July 22 |
| Week 10| July 23     | **Final Exam Week** | **COMPREHENSIVE FINAL EXAM** in Desire2Learn (Saturday July 22 to Monday July 24). Students may take the test once during this time period. Time limit is 120 minutes. **There are no makeups for Test Three.** | Monday July 23 |
## Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOON Wednesday May 30</td>
<td><strong>NO-SHOW ASSIGNMENTS</strong> due</td>
</tr>
<tr>
<td>Sunday June 10</td>
<td><strong>TEST ONE</strong> on Ch. 1-3, 5, 7 and 8 due</td>
</tr>
<tr>
<td>Friday June 22</td>
<td>The last day to withdraw without academic accountability</td>
</tr>
<tr>
<td>Sunday July 1</td>
<td><strong>TEST TWO</strong> on Ch. 9, 10 and 19-22 due</td>
</tr>
<tr>
<td>Monday July 23</td>
<td>- <strong>COMPREHENSIVE FINAL EXAM</strong> due</td>
</tr>
<tr>
<td></td>
<td>- All assignments and tests will be permanently closed.</td>
</tr>
</tbody>
</table>
Affordable Learning Georgia Textbook Transformation Grants

Final Report

Date: August 14, 2018
Grant Round: 10
Grant Number: 335
Institution Name(s): Clayton State University
Project Lead: Sheryne Southard, J.D.

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

Sheryne Southard, Professor, Dept of Interdisciplinary Studies, SheryneSouthard@clayton.edu
Christie Burton, Professor, Dept of Interdisciplinary Studies, christieburton@clayton.edu
Bryan LaBrecque, Associate Professor, Dept of Interdisciplinary Studies, bryanalabrecque@clayton.edu
Xueyu Cheng, Associate Professor, Dept of Interdisciplinary Studies, xueyucheng@clayton.edu
Elnora Farmer, Senior Lecturer, Dept of Interdisciplinary Studies, elnorafricaner@clayton.edu

Course Name(s) and Course Numbers: Tech 3101, Supervision in the Workforce
Tech 3104, Ethics for Administrative and Technical Managers
Tech 3111, Applied Economics
Tech 4115, Global Technology

Semester Project Began: Fall 2017
Final Semester of Implementation: Summer 2018
Total Number of Students Affected During Project: 534 annually

1. Narrative
The goal of this project was to improve the success of the students in the Department of Interdisciplinary Studies by 1) offering no-cost and low cost books, and 2) enhancing the learning materials and curriculum to meet their individual needs. The team set forth three outcomes designed to accomplish this objective.

The first outcome was the adoption of OER textbooks to significantly reduce the textbook costs in Tech 3101 (Ethics for Administrative and Technical Managers); Tech 3104, Ethics for Administrative and Technical Managers; Tech 3111, Applied Economics; and Tech 4115, Global Technology. This measure was designed to 1) reduce students’ financial burden to purchase textbooks which can hinder or delay student’s ability to enroll in the course; and 2) ensure that all students have the textbook on the first day of class to increase student success. Last year 534 B.A.S. students enrolled in these classes and paid an aggregate cost of between $69,960.75 (used books) to $93,900.21 (new books) for four books in the program.
After the adoption of the OER textbooks identified for this grant, the textbook costs were reduced to 0. The following OER textbooks were adopted pursuant to the grant:

Tech 3101:  


Tech 3111:  https://openstax.org/details/books/principles-economics-2e


The second outcome was to develop or adopt audio-visual instructional content to align with the OER book. This measure was designed to improve student success by stimulating learning materials that encourage students to be active and engaged learners and improve student performance. Below is a summary of the multimedia development and adoptions in accordance with the grant (a detailed list of the links organized by subject matter is attached):

- Tech 3101 - 15 video lectures were developed or adopted
- Tech 3104 – 22 video lectures were developed or adopted
- Tech 3111 - 54 video lectures were developed or adopted
- Tech 4115, an orientation video lecture was created and 33 video lectures were developed or adopted

The third outcome was to expand the use of OER student resources at CSU by mentoring faculty members in Department of Interdisciplinary Studies and assisting other faculty with the adoption and creation of no-cost or low-cost textbooks for other upper-division courses. The department is reviewing additional courses that can be transformed with the use of OER textbooks in place of the fee-based textbooks in order to expand the cost-savings further.

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

One member felt overwhelmed when trying to review the myriad resources available and then select ones to use in the course. She came to realization that the textbooks that she used all of these years were not just providing content but also a ready-made structure for the course. After spending the first couple of weeks searching through resources and not making much progress, she realized that she needed to take a more systematic approach.

She decided to go back to my old course content and evaluate what concepts and tools she wanted to use again. She ranked them as “definitely keep”, “maybe” and “replace.” This simple evaluation of my old resources helped me to be more focused (and less stressed) when she reviewed possible resources. The freedom to choose anything can be daunting so starting with some kind of plan is helpful.
Another member, noted that since the free textbook chosen had no teaching aides, he was forced to quickly create quizzes, exams, lectures and PowerPoints. In doing so, he found that the opportunity for typos and question/answer accuracy was less than perfect. He would suggest a graduate student be assigned to assist in this task. Perusing the online text and trying to create exam questions that were pertinent, accurate and in the proper context was a challenge. He has since re-written many of the exam questions for the new semester.

Another member, noted that she would extend the implementation and evaluation time frame to span several semesters. The grant work began at the end of Fall 2017, which left only the Spring of 2018 for planning and development since the implementation took place Summer 2018.

2. Quotes

- Provide three quotes from students evaluating their experience with the no-cost learning materials.

Thanks for looking into this. This option brings a lot of value to the student.

I greatly appreciate the use of open source and free texts for classes. The content is still very good and matches up well with the course learning objectives and assignments.

The course was cost effective. I appreciate the use on electronic materials because it not only saves money; it saves the planet!

3. Quantitative and Qualitative Measures

3a. Uniform Measurements Questions

**Student Opinion of Materials**

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

Please note that the project was implemented during the summer semester. Enrollment is lower in the summer than other semesters. Significantly more students will be impacted in subsequent semesters.

Tech 3101: Total number of students affected in this project: 45 (Summer 2018 – Implementation Semester)

- Positive: 100 % of 20 number of respondents
- Neutral: 0 % of 20 number of respondents
- Negative: 0 % of 20 number of respondents

Tech 3104: Total number of students affected in this project: 13 (Summer 2018 – Implementation Semester)

- Positive: 100 % of 17 number of respondents
- Neutral: 0% of 17 number of respondents
- Negative: 0 % of 17 number of respondents

Tech 3111: Total number of students affected in this project: 25 (Summer 2018 – Implementation Semester)

- Positive: 96.87 % of 33 number of respondents
• Neutral: 0 % of 33 number of respondents
• Negative: 3.13 % of 33 number of respondents

Tech 4115: Total number of students affected in this project: 35 (Summer 2018 – Implementation Semester)

• Positive: 96.55 % of 29 number of respondents
• Neutral: 3.45 % of 29 number of respondents
• Negative: 0 % of 29 number of 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.

Tech 3101 - Choose One:
• x 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)

Using the D2L statistics reporting function, a comparison was made of student averages for quizzes and the final exam in SP18 section T1 to those in SU18 section 90. Note that the spring semester had six quizzes and the summer had eight.

<table>
<thead>
<tr>
<th>assessment</th>
<th>SP18</th>
<th>SU18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final exam</td>
<td>74.57</td>
<td>82.54</td>
</tr>
<tr>
<td>Quiz 1</td>
<td>82.3</td>
<td>88.13</td>
</tr>
<tr>
<td>Quiz 2</td>
<td>80.56</td>
<td>97.14</td>
</tr>
<tr>
<td>Quiz 3</td>
<td>77.64</td>
<td>86.72</td>
</tr>
<tr>
<td>Quiz 4</td>
<td>74.46</td>
<td>86.62</td>
</tr>
<tr>
<td>Quiz 5</td>
<td>79.14</td>
<td>89.71</td>
</tr>
<tr>
<td>Quiz 6</td>
<td>70</td>
<td>94.26</td>
</tr>
<tr>
<td>Quiz 7</td>
<td>Na</td>
<td>77.5</td>
</tr>
<tr>
<td>Quiz 8</td>
<td>Na</td>
<td>90.74</td>
</tr>
</tbody>
</table>

Tech 3104 - Choose One:
• ___ Positive: Higher performance outcomes measured over previous semester(s)
• X Neutral: Same performance outcomes over previous semester(s)
• ___ Negative: Lower performance outcomes over previous semester(s)

<table>
<thead>
<tr>
<th></th>
<th>Sp 18</th>
<th>Su 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – 21</td>
<td>53.8%</td>
<td>A – 5</td>
</tr>
<tr>
<td>B – 11</td>
<td>28.2%</td>
<td>B – 6</td>
</tr>
<tr>
<td>C – 3</td>
<td>7.7%</td>
<td>C – 1</td>
</tr>
<tr>
<td>D – 1</td>
<td>2.6%</td>
<td>D – 0</td>
</tr>
<tr>
<td>F – 1</td>
<td>2.6%</td>
<td>F - 1</td>
</tr>
</tbody>
</table>
The grade distribution data varied based upon the grade earned, therefore it was classified as neutral. A higher percentage of students earned an “A” in the pre-implementation semester (53.8% vs. 38.5%). However, a higher percentage of student earned a B in the post-implementation semester (46.2% vs. 28.2%). The percentage of students that earned a C are identical. There was a slightly lower percentage of students that earned a D in the post-implementation semester (0% vs. 2.6%). But, there was a higher percentage of students that earned an F in the post-implementation semester (7.7% vs. 2.6%).

Tech 3111 - Choose One:
- X 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)

Summer semester is 10 weeks, shorter than the Fall and Spring semesters. Fall and Spring semesters are 16 or 17 weeks. The course setup is slightly different in the summer semester than in the Fall and Spring semesters. So I compare the learning outcomes of Summer 2017 before we adopted the free textbook with those of Summer 2018, the first semester that we adopted the free textbook.

The table below compares the pretest and posttest scores, chapter test scores and grade distribution between Summer 2017 and Summer 2018. The table shows that the test scores in Summer 2018 are higher than those of Summer 2017. The average pretest score in Summer 2018 is 55%, while the average pretest score in Summer 2017 is 48%. It indicates that students of Summer 2018 are better prepared for this course than students of Summer 2017. Unsurprisingly, the average test scores of Summer 2018 are higher than those of Summer 2017. With regards to grade distribution, higher percentage of students in Summer 2018 get A and B, and lower percentage of students get D, F, W or WF. Firstly, the average pretest score indicates that Summer 2018 students are better prepared for the course. Secondly, there are much fewer questions provided by the free textbook publisher, and the questions are slightly easier.

Tech 4115 - Choose One:
- __ Positive: Higher performance outcomes measured over previous semester(s)
- X Neutral: Same performance outcomes over previous semester(s)
- X Negative: Lower performance outcomes over previous semester(s)

Student grades differed from spring to summer. Grades were generally comparable between semesters, but the grades would be characterized negative: Lower Performance over previous semester (which was taught by another instructor @ 16 wks); and neutral: Same Performance over previous Summer semester (taught by me @ 9 wks).

Grade distribution comparison

<table>
<thead>
<tr>
<th></th>
<th>Sp 18</th>
<th>Su 18</th>
<th>Su 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - 20</td>
<td>51%</td>
<td>A - 17</td>
<td>52%</td>
</tr>
<tr>
<td>B - 18</td>
<td>46%</td>
<td>B - 12</td>
<td>36%</td>
</tr>
<tr>
<td>C - 1</td>
<td>3%</td>
<td>C - 2</td>
<td>6%</td>
</tr>
<tr>
<td>D - 0</td>
<td>0%</td>
<td>D - 0</td>
<td>0%</td>
</tr>
<tr>
<td>F - 0</td>
<td>0%</td>
<td>F - 2</td>
<td>6%</td>
</tr>
</tbody>
</table>

All three F grades were associated with lack of participation and had no bearing on the materiel (resource) used.
Exam grade comparison

<table>
<thead>
<tr>
<th></th>
<th>Sp 18</th>
<th>Su 18</th>
<th>Su 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNK</td>
<td></td>
<td>77%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Group Project Grade comparison

<table>
<thead>
<tr>
<th></th>
<th>Sp 18</th>
<th>Su 18</th>
<th>Su 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>93%</td>
<td></td>
<td>90%</td>
<td>91%</td>
</tr>
</tbody>
</table>

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:
Depending on what you and your institution can measure, this may also be known as a drop/failure rate or a withdraw/failure rate.

Tech 3101: 26.3% of students, out of a total 45 students affected, dropped/failed/withdrew from the course in the final semester of implementation. In the Spring of 2018 35.8% (14 out of 39) of the students received a D, F, W or W/F.

Choose One:
- x 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)

Tech 3104: 15.4% of students, out of a total 13 students affected, dropped/failed/withdrew from the course in the final semester of implementation. For Tech 3104, the D/F/W rate was 7.7% (3 out of 39 total students) in the Spring of 2018, the pre-implementation semester. The D/F/W rates are typically higher in the summer due to the abbreviated schedule. The team attribute the negative D/F/W results to the rigors of the course within a shortened time frame and not the adoption of the OER resource.

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

Tech 3111: 12% of students, out of a total 25 students affected, dropped/failed/withdrew from the course in the final semester of implementation. The D/F/W rate of Summer 2018 is only 12%, while the D/F/W rate in Summer 2017 is as high as 25%. As mentioned previously, students of Summer 2018 are better prepared for the course and test questions are slightly easier than in Summer 2017. The data presented in the table shows evidence that lowering textbook cost seems to be effective in preventing students from withdrawing from the course or getting a failure grade.

Choose One:
- X Positive: This is a lower percentage of students with D/F/W than previous semester(s)
Tech 4115: 6% of students, out of a total 35 students affected, dropped/failed/withdrew from the course in the final semester of implementation. 6% of the students failed the course during the summer semester. Both failed due to lack of participation, not exam/assessment results. This level would be considered Negative when compared to the previous semester (16 wks with a different instructor) and Neutral when compared to the previous summer semester (9 wks with same instructor).

Choose One:

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

3b. Measures Narrative

Student impression data collected in this project includes quantitative data from Likert-scale formatted questions and qualitative data from open-ended questions. For some classes, students were offered nominal extra credit to incentivize participation. The grade distributions data was collected each of the exams in the courses.

Value of OER Resources to Student Population

To confirm the value of the OER resource for the Clayton State University student population, students were asked three questions about the whether the students 1) take textbook cost into consideration when registering for a class; 2) expect instructor to take textbook costs into consideration; and 3) only purchase or rent a textbook if absolutely necessary. The chart below summarizes the student response rate for these questions. The vast majority of the CSU students in the four courses take textbook costs into consideration when registering (64.4% to 75.9%); expect the instructor to take textbook costs into consideration (86.2% to 91.6%); and only purchase or rent a textbook if absolutely mandated (74% to 86.2%). These results confirmed the students’ textbook cost concerns and the need for the transformation project.

<table>
<thead>
<tr>
<th>Question: I take into consideration the cost of a course textbook and other class materials when I register for a class</th>
<th>Course</th>
<th>Strongly Agree or Agree</th>
<th>Neutral</th>
<th>Disagree or Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech 3101</td>
<td>64.4%</td>
<td>15.3%</td>
<td>20.3%</td>
<td></td>
</tr>
<tr>
<td>Tech 3104</td>
<td>65%</td>
<td>20.5%</td>
<td>14.5%</td>
<td></td>
</tr>
<tr>
<td>Tech 3111</td>
<td>85.6%</td>
<td>4.8%</td>
<td>9.6%</td>
<td></td>
</tr>
<tr>
<td>Tech 4115</td>
<td>75.9%</td>
<td>10.3%</td>
<td>13.8%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question: When an instructor develops a course, he or she should take into consideration the cost of a textbook and other course material</th>
<th>Course</th>
<th>Strongly Agree or Agree</th>
<th>Neutral</th>
<th>Disagree or Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech 3101</td>
<td>86.2%</td>
<td>10.3%</td>
<td>3.5%</td>
<td></td>
</tr>
</tbody>
</table>
### Student Impression of OER Resource

To evaluate whether the students were amenable to an alternative to the traditional (non-free) textbook, we compared student satisfaction with the textbook prior to the implementation with student satisfaction after the implementation. When surveyed about whether the OER book selected for the course was sufficient for their needs, the vast majority of the pre-implementation data pool agreed (76.92% to 92.5%). Although there was a high percentage of student satisfaction in the pre-OER phase, the satisfaction after the implementation was unanimous across three of the four courses (as indicated in the chart below) and 96.55% in the remaining course.

<table>
<thead>
<tr>
<th>Question: The textbook used for this course was sufficient for my needs to successfully complete the course.</th>
<th>Course</th>
<th>Strongly Agree or Agree</th>
<th>Neutral</th>
<th>Disagree or Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tech 3101 – Pre-OER Transformation</td>
<td>76.92%</td>
<td>23.09%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Tech 3101 Post-OER Transformation</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Tech 3104 Pre-OER Transformation</td>
<td>89.39%</td>
<td>4.55%</td>
<td>6.07%</td>
</tr>
<tr>
<td></td>
<td>Tech 3104 Post-OER Transformation</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Tech 3111 Pre-OER Transformation</td>
<td>90.47%</td>
<td>7.94%</td>
<td>1.59%</td>
</tr>
<tr>
<td>Course</td>
<td>Pre-OER Transformation</td>
<td>92.5%</td>
<td>2.5%</td>
<td>5%</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
<td>-------</td>
<td>------</td>
<td>----</td>
</tr>
<tr>
<td>Tech 4115</td>
<td>Post-OER Transformation</td>
<td>96.55%</td>
<td>6.9%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

**Option for Print Version**

Students were queried about whether they would also want the option to purchase a printed version of the OER resource. The student response rate varied by course. Approximately ¼ of the respondents indicated that they would avail themselves of this option in Tech 3101 and Tech 4115. The number of rate doubled in Tech 3104 and Tech 3111, 52.94% and 45.45%, respectively. This information was helpful to the team as it indicated the value of inquiring with the bookstore about offering a low cost print version of the EOR resource.

<table>
<thead>
<tr>
<th>Question: If an instructor adopted a free online textbook, I would still want the option to buy a printed copy</th>
<th>Course</th>
<th>Strongly Agree or Agree</th>
<th>Neutral</th>
<th>Disagree or Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tech 3101</td>
<td>25%</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Tech 3104</td>
<td>52.94%</td>
<td>5.88%</td>
<td>41.17%</td>
</tr>
<tr>
<td></td>
<td>Tech 3111</td>
<td>45.45%</td>
<td>18.18%</td>
<td>36.36%</td>
</tr>
<tr>
<td></td>
<td>Tech 4115</td>
<td>24.14%</td>
<td>24.14%</td>
<td>51.73%</td>
</tr>
</tbody>
</table>

Finally, the most important variable was the impact of the project on the student outcomes. The student outcomes in the courses varied between positive, neutral and negative. However, this team does not attribute the negative impact (when observed) to the adoption of the OER resource. Rather, it attributes any negative impact to the rigorous summer schedule. The same is true for the D/F/W rate. The impact varied between positive, neutral and negative across the four courses. The team concluded the summer schedule was the cause of the higher D/F/W rate. The team will evaluate this data in a subsequent full semester to make a more accurate assessment of the impact.

4. **Sustainability Plan**

Given the extremely favorable student feedback and positive student outcomes, the team is committed to continue using the OER resources selected for the courses. The instructors will regularly check with OpenStax to ensure that additional versions of their text are not available. For instance, during the timeframe of this transformation process the Tech 3111 OER textbook
was updated from edition 1 to edition 2. Updated editions will be used whenever available to ensure that the course is current. The textbooks will be regularly reviewed in accordance with the instructional matrix. The intention is to continuously monitor, assess and improve the materials to maximize their pedagogical benefit to the students.

5. Future Plans

   The team plans to continue to seek out OER resources for other courses taught in the Department. Also, the team is planning to present a proposal to present its research findings at the International Society for Exploring Teaching and Learning to disseminate information about the grant and its impact of OER resources on the student population.

6. Description of Photograph

   Top left Dr. Bryan LaBrecque, Associate Professor, and responsible for Tech 4115 course transformation

   Top right: Christie Burton, Professor, and responsible for Tech 3101 course transformation

   Bottom left: Sheryne Southard, Professor, team lead and taught implementation semester of Tech 3104

   Bottom right: Xueyu Cheng, Associate Professor, responsible for Tech 3111 course transformation

   Bottom middle: Elnora Farmer, Senior Lecturer, responsible for Tech 3104 course transformation