Application Details

Manage Application: Textbook Transformation Grants: Round Eleven

Award Cycle:	Round 11		
Internal Submission Deadline:	Tuesday, January 23, 2018		
Application Title:	360		
Application ID:	002079		
Submitter First Name:	Charity		
Submitter Last Name:	Bryan		
Submitter Title:	Associate Professor and Director of Technology Enhanced Learning		
Submitter Email Address:	cbryan4@kennesaw.edu		
Submitter Phone Number:	470-578-4937		
Submitter Campus Role:	Proposal Investigator (Primary or additional)		
Applicant First Name:	Charity		
Applicant Last Name: Bryan			
Applicant Email Address:	cbryan4@kennesaw.edu 470-578-4937		
Applicant Phone Number:			
Primary Appointment Title:	Associate Professor and Director of Technology Enhanced Learning		
Institution Name(s):	Kennesaw State University		
Co-Applicant(s):	Dr. Jennifer Purcell, Ms. Sandra Jones		
Submission Date:	Tuesday, January 23, 2018		
Proposal Title:	360		
Proposal Category:	No-Cost-to-Students Learning Materials		
Final Semester of Instruction:	Fall 2018		
Are you using an OpenStax textbook?:	Yes		
Team Members (Name, Email Address):			
PI: Charity Bryan, PhD Associate Professor and Director of Technology Enhanced Learning Technology Enhanced Learning			

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Jennifer W. Purcell, EdD Assistant Professor Department of Leadership and Integrative Studies jpurcell@kennesaw.edu

Sandra Jones, M.S. Senior Lecturer Software Engineering and Game Development sjone383@kennesaw.edu

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

Dr. Elke Leeds Technology Enhanced Learning Kennesaw State University

Course Names, Course Numbers and Semesters Offered:

<u>Course #1:</u> Behavioral and Psychological Aspects of Physical Education and Coaching HPE 3100 Offered: summer, fall, spring (online)

Course #2: Service as Leadership LDRS 3400 Offered: summer, fall, spring (online)

Course #3: Programming and Problem Solving 1

CSE 1301 Offered summer, fall, spring (face-to-face)

List the original course materials for students (including title, whether optional or required, & cost for each item):	HPE 3100 Weinberg, R. and Gould, D. (2015). Foundations of sport and exercise psychology. Sixth edition, Champaign, IL: Human Kinetics. Required \$62.00LDRS 3400 Komives, S.R. & Assoc. (2016). Leadership for a better world: Understanding the social change model of leadership development (2nd ed.). San Francisco: Jossey-Bass. Required \$45.00CSE 1301 Fundamentals of Computer Programming with C# by Svetlin Nakov, Veselin Kolev & Co. Freely available online at: http://www.introprogramming.info/english- intro-csharp-book/ Required \$0Intro to Java Programming, Comprehensive Version, Y. Daniel Liang. eTextbook Required \$104.99
	Games and Simulations, Michael Colling. eTextbook Required \$69.99
Average Number of Students per Course Section:	HPE 3100- 40-50; LDRS 3400-40-45; CSE 1301- 35-40
Number of Course Sections Affected by Implementation in Academic Year:	48-53
Average Number of Students Per Summer Semester:	63
Average Number of Students Per Fall Semester:	350
Average Number of Students Per Spring Semester:	207

Total Number of Students Affected by Implementation in Academic Year:	1900
Requested Amount of Funding:	\$24,800
Original per Student Cost:	HPE 3100-\$62.00 total; LDRS 3400-\$45.00 total; CSE 1301-\$174.98 total
Post-Proposal Projected Student Cost:	\$0 for all students in HPE 3100; LDRS 3400; CSE 1301
Projected Per Student Savings:	HPE 3100: students will save \$62/each; LDRS 3400: students will save \$45/each; CSE 1301: students will save \$174.98/each
Projected Total Annual Student Savings:	\$294,268.40

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

All materials will be provided to students in D2L.

Project Goals:

This project seeks support from the Affordable Learning Georgia (ALG) initiative to implement open educational resources in three courses (HPE 3100: Behavioral and Psychological Aspects of Physical Education and Coaching, LDRS 3400: Service as Leadership, CSE 1301: Programming and Problem Solving 1), across three colleges at Kennesaw State University (KSU). As an institution, we strive to further the mission of ALG and increase the scope of courses using open educational resources (OERs) in order to provide students with low and no-cost learning materials. The three courses are representative of exemplary courses in their respective disciplines, with the online courses (HPE 3100 & LDRS 3400) having been approved through KSU's internal, faculty peer-review process of Quality Matters (QM). Broadly, the project goals include:

1. Transformation of high demand courses to include open educational recourses;

2. Support cost savings for students enrolled in the transformed courses;

3. Provide professional development for faculty and course developers involved in the project; and

4. Expand awareness of the Affordable Learning Georgia and initiative and OER resources across the university such that additional faculty may be encouraged to adopt low and no-cost course materials.

The primary goal of the project is to transform high demand courses to include open education resources. As the OER movement gains momentum and the quality and scope of available materials expand, KSU and its USG peers may serve as a leader in course transformations across a variety of institutional types. Through the proposed course transformations, we will

support Chancellor Wrigley's goal to increase college affordability as well as alleviate the financial burden associated with textbook purchases for students in the selected courses. In addition, the transformation of CSE 1301 directly supports the Governor's High Demand Career Initiative by transforming a required course in computer programming and problem solving. We believe that students will be more successful in these courses since all of the needed resources and materials will be provided to them at no cost. In addition, this project will allow the faculty members to fully vet and identify course resources that will be at least equal to, and possibly better than, the current textbooks being used. From a pedagogical standpoint, if funded, this shift to open access resources will allow faculty to include the most current research and latest trends in their respective areas.

If funded, the three faculty members agree to share their experiences using OER content across campus. We anticipate using this project to launch further OER transformations in additional courses across campus. Kennesaw State University stands to become a leader in integrating OER resources and, if funded, this project will serve as a springboard for future course transformations across colleges.

Please see the Course Enrollment and Cost Chart below for a summary of the impact of transitioning the three selected course to OER courses.

Course	Summer 2017	Fall 2017	Spring 2018	Projected Enrol (summo fall 2 spring	d 2018-19 Iment er 2018, 2018, J 2019)	Cost of previously used textbook and other materials	Total Cost Savings in AY 2018-19
				Number of Sections	Total Number of students		
HPE 3100	40	40	80	5 (1 summer; 2 fall; 2 spring)	200	\$62/student	\$12,400 (\$62 x 200 students)
LDRS 3400	40	40	40	3 (1 summer; 1 fall; 1 spring)	120	\$45/student	\$5400 (\$45 x 120 students)

Course Enrollment and Cost Chart

CS 1301	110	930	540	40 sections per year	1,580	\$174.98/stu dent	\$276,468.4 0 (\$174.98 x 1,580 students)
Total:	190 students	1,010 students	660 students	48 sections	1,900 students		\$294,268.4 0*

*Projected savings for year one.

Statement of Transformation:

Describe the Transformation

As presented the data provided in Table 1, the cost savings to students across the three courses will be \$294,268.40 in year one. Converting these courses to using OER resources will transform the courses by ensuring that all materials are the most up-to-date and relevant for instruction and provide a significant cost savings to students enrolled in the courses.

Through a partnership with Intellus Learning, faculty will be provided with the tools they need to be able to find, evaluate and curate quality OER and Library Resources. Faculty involved in the project will transition from their traditional textbooks and curate courses with OER, Library, and/or Locally Authored Resources.

The ALG grant will support a complete course transition to open access materials; thereby eliminating the required textbook purchase for students enrolled in HPE 3100, LDRS 3400, and CSE 1301. Once a complete curation of alternative open access course materials that support achievement of the course learning outcomes has been established, the faculty course developer will create supplemental learning activities and assessments to ensure alignment with the newly adopted open access course learning materials.

Specifically, for CSE 1301, the OERs will focus on fundamentals as defined by the ACM and IEEE professional societies in computing and provide examples in multiple modern programming languages, making it usable in many universities providing an intro to programming course.

Identify stakeholders affected by the transformation

The stakeholders affected by the transformation include the following:

Three faculty team members (Dr. Bryan, Dr. Purcell, Ms. Jones): will be responsible for converting their courses to using OERs.

LMS Administrators: will assist with linking the OER materials into D2L.

Library Administrators: will assist with obtaining OER materials as needed in the three course.

KSU Administration: will assist by supporting the efforts of the stakeholders across campus who are working to support the OER implementation into these courses.

Instructional Designers: will assist the three faculty team members to ensure the design of their revamped courses meet Quality Matters standards (for online courses – HPE 3100 and LDRS 3400), as well as assist with the implementation of the OERs as needed. Instructional designers will also assist in helping the faculty team members ensure that their courses are designed with the new OERs in a way that is student friendly and pedagogically meaningful. Employers: Agencies or other entities who will hire our students as interns or for permanent positions are also stakeholders who may be affected by this transformation.

Students: the 1900 students who will be impacted in an academic year by these revised courses using OERs are likely the greatest stakeholders of all. By providing students with the latest information and materials, at no cost, students certainly stand to be most transformed by this grant.

Describe the impact of this transformation on stakeholders and course success

The project will impact a variety of stakeholders, including the following.

Faculty Development Team

By collaborating with Intellus Learning, the faculty members will be provided with the single largest repository of free resources to search and curate. This partnership will not only provide a significant time saving for the faculty members, but it will also allow the faculty to have guided help during the entire transformation process. Intellus Learning will also provide the faculty with analytics on student engagement for continuous course improvement and will alert faculty within 24 hours if a link they are using is broken or updated.

LMS Administrators

This transformation will help drive usage of the LMS with instructors integrating Intellus Learning materials within D2L. In addition, there will be a SSO (single sign on) of all curated content for students within the LMS.

Library Administrators

Will help drive adoption, usage and analytics of library resources used in the transformation of the courses to OER content. The KSU Library administration also support the institution by providing information on usage of library resources.

Kennesaw State University Administration

The KSU administration is ultimate responsible to pursue initiatives which help drive student

success, equity and engagement. One significant way to make this happen is with quality and openly accessible resources.

Instructional Designers

Instructional designers from the KSU Distance Learning Center support faculty in their course redesign, as well as assist with content curation of library resources and OERs. Instructional designers can specifically assist with the following:

Development of instructional materials and products for technology-based redesign of courses.

Mentoring of faculty on how to use instructional technology effectively or to use best practices to integrate technology with teaching.

Conducting a needs assessment and strategic learning assessment to develop the basis for curriculum development or to update curricula.

Designing instructional aids for hybrid and online courses.

Designing learning products, including web-based aids or electronic performance support systems.

Planning, shooting and producing video materials for use in online and hybrid courses. Providing guidance on the closed captioning process

Employers

The impact to employers will be evident upon hiring KSU students from one of the three courses as an intern, or fulltime employee. The use of OERs will allow the faculty to provide students with the most up-to-date resources, as well as the most current trends. This will result in a more educated and adaptable workforce. Given that one of our goals is to spread the OER message to other faculty across campus, we would like to see this benefit extend to multiple disciplines across campus, thus affecting more and more employers over time.

Students

This project will likely impact students in the most meaningful way by allowing for open access to free resources. By transitioning to OERs, there will be no barriers to course entry due to trying to obtain the required course materials. In addition, this transformation allows for more engaging learning resources as well as meeting the needs of diverse learners.

HPE 3100 Students

At the course level, HPE 3100 students will transition from what is currently a heavy reliance on the textbook to more varied resources and OER content. The \$62 per student savings will translate to \$12,400 in savings in one academic year (summer 2018; fall 2018; spring 2019). In addition, moving to an OER concept in the course will allow for more unique learning activities that will meet the needs of all students and still ensure the pertinent content is covered for students who will work with individuals, teams, and clients in sport related settings. As stated previously, one of the goals of this project is to evangelize to the wider campus the value of OERs. In the Department of Health Promotion and Physical Education (HPE), this project will potentially lead to the adoption of other OERs for additional courses. If funded, HPE 3100 could become the exemplar in the Department of Health Promotion and Physical Education and Physical Education for the use of OERs.

LDRS 3400 Students

LDRS 3400 students will have access to a robust curation of open access materials similar in quality, scope, and depth to the existing required textbook. The cost-saving, free access alternative will equally support achievement of the established course learning outcomes and student success while simultaneously alleviating the financial burden of procuring a required text. In year one, students enrolled in LDRS 3400 will save approximately \$5,500. This savings will compound each year as additional sections of the course are anticipated to be offered in response to student enrollment demand. Specifically, projected offerings for this course are expected to increase 100%. Therefore, the savings could exceed \$10,000 for this course alone in year two following the adoption of the course transformation. Additionally, faculty and staff will save time and resources each semester that are routinely required for communication within the department and with the university bookstore regarding textbook adoptions. The grant award will also support internal Quality Matters review of the revised course through an existing distance learning support unit.

CSE 1301 Students

All students successfully accepted to, and entering any major within the College of Computing and Software Engineering, will be required to complete the programming sequence currently under development (the revamped CSE 1301). The specific impact to each of the stakeholders and the overall success of the courses includes: (1) benefitting students, who will receive the most from the course with up-to-date information and in-depth understanding of the emerging trends and technologies in Computing and Software Engineering, helping them become better prepared for the field at no cost to them; (2) benefitting instructors with the latest, comprehensive content and resources in Computing and Software Engineering and ready-toteach course packages in D2L; and (3) subsequently benefitting the hiring companies, who are in need of the students that we are educating.

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

Courses

HPE 3100 will be transformed by providing students an upper level course, which is required of HPE majors for graduation, by allowing students to successfully complete the course at no additional cost. In addition, students from other majors (Sport Management, Psychology, etc.) will also reap the benefit of the transformation to an OER platform in HPE 3100. Students will also be transformed through the course by engaging with the most current resources as well as current event case studies and other issues in sport and physical activity psychology.

The proposed course transformation for LDRS 3400 will increase the affordability of an upperlevel undergraduate course through the elimination of its current required textbook in favor of open resource materials. This particular niche course will serve as a pilot for the Leadership Studies Program, which has annual enrollment nearing 2,000 across 12 unique courses.

Immediate access to freely available and current resources would increase the chances that any student enrolled in CSE 1301 would be successful. As shown below, success in this course has a direct effect on not only the programs and departments in CCSE, but also the institution.

Program

The OER project will be transformational for the Health Promotion and Physical Education (HPE) Program by being among the first to implement OERs in an upper level course. If funded, this project has the potential to lead to numerous other courses in HPE becoming OER courses, thus saving HPE majors even more money across their educational experience.

Additional degree programs within University College will be encouraged to adopt open resource course materials based on the demonstrated success on the proposed transformation. As with the other courses in this project, LDRS 3400 could be the first in a subsequent transition for other courses in the college.

All of the programs in the College of Computing and Software Engineering (CCSE) require a strong programming foundation in order to be successful. A strong start in the CSE 1301 course could potentially positively impact our current retention, progression, and graduation rates in these programs. The programs directly impacted by this project would be:

BS in Computer Science BA in Applied Computer Science BS in Information Technology Bachelor of Applied Science in Information Technology BS in Software Engineering BS in Computer Games Design and Development

Department

The Department of Health Promotion and Physical Education offers an undergraduate degree in Public Health Education and a P-12 teacher preparation program in Health and Physical Education. The Department also offers minors in both Coaching and Public Health Education which are open to any degree seeking undergraduate KSU student. While students in the Public Health Education major do not take HPE 3100, the conversion of this course to using OERs can serve as a catalyst for other courses in the P-12 teacher preparation program as well as the Public Health Education major to consider seriously the adoption of free and open source materials. We believe this grant can be transformational for the department as a whole.

As indicted previously, additional programs within University College will be encouraged to adopt open resource course materials. As with the other courses in this project, LDRS 3400 could be the first in subsequent transitions for other courses in the college.

The College of Computing and Software Engineering is comprised of three departments: Computer Science, Information Technology, and Software Engineering/Game Development and Design. All students in any program offered in these departments are required to take CSE 1301 during their first or second semester as students within CCSE. We believe these departments may seriously consider the adoption of open source materials in other courses later in the programs given the large scale implementation of CSE 1301. While the initial grant may only be for three courses (HPE 3100, LDRS 3400, and CSE 1301), we believe there is potential for widespread adoption based on the successful implementation of these first three courses across three different colleges.

Institution

HPE 3100 is open to all students, but is part of the curriculum for Health and Physical Education (P-12 teacher preparation) and Sport Management. The course also counts as an elective for Psychology majors. Similarly, LDRS 3400 has a very wide audience of students across campus. In addition to servicing students of CCSE, the CSE 1301 course satisfies Area D of the General Education Core Requirements set forth by the University System of Georgia at some universities. At KSU, we plan to add CSE 1301 into Core Area D within the next year or two.

We believe that, if funded, the transformation of these courses can serve as a catalyst within the respective Colleges, and that message can be broadened to the entire campus through avenues such as Dean's meetings, the KSU Unconference on Online Education, and other presentations across the institution.

A CSE 1301 course that teaches foundational topics (primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, using and designing basic classes, single dimension arrays with searching and sorting) transfers seamlessly across institutions. The topics covered in this course are applicable broadly to many USG computing programs and follow industry-recognized topics as defined by the ACM, IEEE, and ABET.

Multiple Courses

A strong programming foundation is critical for success in 12-15 subsequent courses that are a part of CCSE. Transforming CSE 1301 to an open education platform, with no textbook cost, has the potential to increase student success in the subsequent courses that require a strong

background in programming. In addition, Drs. Bryan and Purcell believe that HPE 3100 and LDRS 3400, respectively, can pave the way for future course transformations in multiple courses in the WellStar College of Health and Human Services, which houses HPE, as well as University College, which houses LDRS.

Transformation Action Plan:

The three team members plan a systematic review of no-cost resources for the courses in the proposal. The timeline below provides details on when each step of the process will occur. As part of the grant, if funded, we will partner with Intellus Learning who will assist the three faculty members in the identification, review, selection, adaptation, and/or creation of the new course materials. Intellus Learning works with faculty members to quickly access high-quality open education resources, as well as their institution's academic library materials to help replace expensive course materials. In addition, Intellus Learning provides faculty with powerful, real-time data related to students' engagement with the assigned content.

As the subject matter experts, Dr. Bryan, Dr. Purcell, and Ms. Jones will engage in revisions to both the course materials housed in D2L which may include, but is not limited to, assignments, practice exercises, quizzes, tests, laboratory activities, case studies, discussion boards/class discussions, etc. In addition, the faculty will revamp their course syllabi as appropriate, based on the course transformation to using OERs. All OER resources will be provided to students through D2L.

Team Member	Course	Role/Responsibility
Dr. Charity Bryan	HPE 3100	Project lead and subject matter expert in sport psychology. Will prepare all revised course materials, using OERs, for HPE 3100 and will serve as instructor of record, teaching two sections of the course each fall and spring semester (one section in summer). Will attend kickoff meeting

The responsibilities of each team member are outlined below.

Dr. Jennifer Purcell	LDRS 3400	Subject matter expert in leadership. Will prepare all revised course materials, using OERs, for LDRS 3400 and will serve as instructor of record, teaching one section of the course each fall, spring, and summer semester. (<i>Will decide if Dr. Purcell or</i> <i>Ms. Jones attends the Kickoff</i> <i>Meeting</i>).
Ms. Sandra Jones	CSE 1301	Subject matter expert in programming. Will prepare all revised course materials, using OERs, for CSE 1301 and will serve as instructor of record. Multiple sections of this course are taught each fall, spring, and summer semester. (<i>Will decide if Dr.</i> <i>Purcell or Ms. Jones attends</i> <i>the Kickoff Meeting</i>).

Quantitative & Qualitative Measures:	In order to assess the effectiveness of the transition to open educational resources in HPE 3100, LDRS 3400, and CSE 1301, the faculty members will utilize both qualitative and quantitative measures. For each course, a survey instrument will be designed to gather qualitative student feedback, specifically related to the OERs, at the end of the semester. In addition to the qualitative survey distributed at the end of the course, a mid-course check in will also be used to determine if corrections need to be made at mid-semester. The mid-course check in will be a shorter survey designed to give the faculty members an idea of whether or not there are any significant gaps as it relates to content or student understanding.From a quantitative perspective, the three faculty members will use student performance data from previous semesters, prior to using OERs, and compare it to the student performance data will include overall grade in the course as well as comparison of performance on significant courses assignments that cover multiple course objectives (i.e. written papers, projects, etc.). In addition, we will examine the number of D's, F's, and W's (withdrawals) that occurred both before and after the transformation to open educational
	examine the number of D's, F's, and W's (withdrawals) that occurred both before and after the transformation to open educational resources in each of the three courses.The chart below provides a summary of the proposed assessment plan.

Timeline:

Milestone Dates	Milestone
February 15, 2018	Schedule training for three faculty members and Instructional Designers with Intellus Learning. Begin process of procuring OERs for each of the five courses.
February 16-June 30, 2018	Systematic re-design of course components that will transition to OERs. Work with Intellus Learning to obtain course materials.

July 1-15, 2018	HPE 3100 and LDRS 3400 (both online courses) undergo required Quality Matters re- review through the Office of Distance Learning. CSE 1301 (face-to-face) undergoes informal review by Instructional Designer at the KSU Office of Distance Learning.		
July 15-30, 2018	Revisions/corrections are made to all three courses based on the review process. HPE 3100 and LDRS 3400 achieve QM approval status.		
August 10, 2018	Revised courses will be completed in course shells in D2L ready for fall semester.		
August – December 2018	Courses are taught with new OER transformation complete. Data collection takes place in each course this semester (mid-term check in; end of semester survey; Student Evaluation of Instruction; student performance data. See assessment plan for more information).		
December 2018 - January 2019	Course revisions are made (prior to teaching the courses in spring semester) based on student evaluations and experiences in fall semester.		
January - April 2019	HPE 3100, LDRS 3400, and CSE 1301 are taught in spring semester using OERs. Data collection process continues in order to support course refinement.		
May 2019	Course revisions are made (prior to teaching the courses in summer) based on student evaluations and experiences in the spring term.		
June - August 2019	HPE 3100, LDRS 3400, and CSE 1301 are taught in summer semester using OERs. Data collection process continues in order to support course refinement.		
Course revision process and teaching cycle continues. OERs continue to be undated as			

Course revision process and teaching cycle continues. OERs continue to be updated as needed in future semesters. Dr. Bryan, Dr. Purcell, and Ms. Jones continue to work within their respective departments/colleges to encourage others to use OERs where appropriate.

Budget:

\$24,800 total request

Expense Category		Description	Expense
Team Members			
	Dr. Charity Bryan	Project lead and subject matter expert in sport psychology (HPE 3100). Will prepare all revised course materials, using OERs, for HPE 3100 and will serve as instructor of record, teaching two sections of the course each fall and spring semester (one section in summer). Will attend kickoff meeting	\$5000
	Dr. Jennifer Purcell	Subject matter expert in leadership (LDRS 3400). Will prepare all revised course materials, using OERs, for LDRS 3400 and will serve as instructor of record, teaching one section of the course each fall, spring, and summer semester. (<i>Will decide if Dr.</i> <i>Purcell or Ms. Jones</i> <i>attends the Kickoff</i> <i>Meeting</i>).	\$5000

	Ms. Sandra Jones	Subject matter expert in programming (CSE 1301). Will prepare all revised course materials, using OERs, for CSE 1301 and will serve as instructor of record. Multiple sections of this course are taught each fall, spring, and summer semester. (<i>Will decide if Dr.</i> <i>Purcell or Ms. Jones</i> <i>attends the Kickoff</i> <i>Meeting</i>).	\$5000
One year license to support OER curation			
	Intellus Learning	Intellus Learning empowers instructors to quickly access high- quality open educational resources (OER), as well as their institution's academic library materials to help replace expensive course materials, while providing powerful, real-time insight into students' engagement with the assigned content.	\$9000
Travel			
	Travel support	Travel support for two team members to attend the ALG Kickoff Meeting	\$800

\$15000 total for team member compensation\$9000 for Intellus Learning (one-year license) www.intelluslearning.com\$800 for travel and expenses (for two team members to attend required ALG Kickoff meeting)

Sustainability Plan:

All courses included in this project will be offered at Kennesaw State University indefinitely. HPE 3100 is a required course for both HPE majors, as well as Sport Management majors. In addition, Psychology majors are allowed to take the course as an elective.

LDRS 3400 is an online course that is routinely offered for majors in the fully online Bachelor of Science in Integrative Studies. In addition, since LDRS 3400 will serve as a pilot for the Leadership Studies Program, with an annual enrollment nearing 2,000 students, this course will most certainly be offered for the foreseeable future at Kennesaw State University.

If the grant funding or institutional funding for an Intellus Learning license is not renewed, Intellus provides a print out where faculty can keep their entire course structure as well as the links to the content they have curated. Faculty would will lose access to the LMS integration and analytics provided by Intellus Learning, the faculty will not lose their work or the resources obtained. Faculty would be able to reintegrate links within D2L if the institution did not renew the license with Intellus Learning. Below is an example of what the document looks like that preserves faculty work and resources.

ECON 151 - Introduction to Economics (DEMO) Instructor: David Webster

Course Description:

Economics is a subject whose scope of study pervades much of our daily life, so it is essential that as citizens we understand it on at least a basic level. This course is intended to familiarize students with the fundamental concepts governing our economic interactions, institutions, and policies, and to furnish them with an analytical framework with which to view the functioning of economies in a more critical light.

Course Resources:

Course Supply and Demand

•economicurtis. "Supply and Demand Curve Analysis" Youtube. 03 Jul. 2012. Video.

Type: Required Readings

Description

This video will provide you with an example of a shifting demand curve based on a variable such as a change in consumer income.

Pre-Instructions:

Watch this video to learn about the impact of specific variables on the demand curve.

Post-Instructions:

Now that you have watched this video, you should be able to describe how non-price variables cause a shift in the demand curve.

•"Economics of Supply" Merlot. unomaha.edu, 02 Nov. 2003. Tutorial.

Type: Required Readings

Description

This resource explains what causes changes in demand and quantities demanded.

Pre-Instructions:

Work through Topic 1: Distinguishing Demand and Quantities Demanded in this Lesson Presentation to learn about changes in demand and quantity demanded.

Post-Instructions:

Now that you have reviewed this content, you should be able to describe the difference and reasons for change in demand and quantity demanded.

•"Supply And Demand." Library (EBSCO). Business Source Complete [bth], 19 Feb. 2015. Article/Journal.

Type: Required Readings

•"Chapter 3: Demand and Supply." OpenStax College. eBook.

Type: Required Readings

Description

This reading will teach you about the variables that influence both demand and supply. You will

read about what makes up supply and demand and what components can cause shifts in the market.

Pre-Instructions:

Read pages 70–82 to learn about both the demand and supply sides of the market.

Post-Instructions:

Now that you have completed this reading, you should be able to describe the law of supply and the law of demand and know how they affect markets.

•"Case Study on Water: Supply and Demand" Library (EBSCO). Academic Search Complete [a9h], 31 Dec. 2013. Article/Journal.

Type: Required Readings

Description

A great study on water supply and how it affects the local economy.

Pre-Instructions:

Spend 15-20min on reading this case study. Do not read for detail/memorizing, simply understand how economists view this topic.

Post-Instructions:

Bring three take-away items to class for discussion.

•Richard Gosselin. "Equilibrium Condition with Supply and Demand Curves" Youtube. 19 Feb. 2010. Video.

Type: Required Readings

Description

This video will provide you with an example of a shifting demand curve based on a variable such as a change in consumer income.

Pre-Instructions:

Watch this video to learn about the impact of specific variables on the demand curve

Post-Instructions:

Now that you have watched this video, you should be able to describe how non-price variables cause a shift in the demand curve.

•"Principles of Macroeconomics > Chapter 3: Demand and Supply." OpenStax College. eBook.

Type: Required Readings

•Bryn Jones. "Supply & Demand" Youtube. 01 May. 2008. Video.

Type: Required Readings

Course Elasticity

•"It's Not Inflation It's Price Elasticity!" Library (EBSCO). Business Source Complete [bth], 06 Mar. 2011. Article/Journal.

Type: Required Readings

Description

Helps to explain the differences between general market inflation and the specifics of particular prodcution/resource price elasticity.

Pre-Instructions:

Spend 15-20 minutes reading this. No more! This is dense reading but great insight into the realities of elasticity in the market.

•Economics Course. "Chapter 5. Elasticity and Its application." Youtube. 13 Dec. 2015. Video.

Type: Required Readings

Description

This video explains how demand curves can be elastic or inelastic in a real-world scenario involving the price of gasoline.

Pre-Instructions:

Watch the video to learn about elastic and inelastic demand.

Post-Instructions:

Now that you have watched this video, you should be able to analyze when a demand curve is elastic or inelastic.

•"Chapter 5: Elasticity" OpenStax College. eBook.

Type: Required Readings

Description

This reading focuses on defining and measuring price elasticity of demand. You will also learn about inelastic demand, elastic demand, perfectly elastic demand, perfectly inelastic demand, and unit elastic demand.

Pre-Instructions:

Read pages 172–178 to learn about price elasticity of demand and its measurement.

Post-Instructions:

Now that you have completed this reading, you should be able to explain the different types of elastic and inelastic demand.

•Free Econ Help. "How to Solve Elasticity Problems in Economics" Youtube. 21 Sep. 2011. Video.

Type: Required Readings

•"Chapter 5: Elasticity" OpenStax College. eBook.

Type: Required Readings

•Garg University. "Price elasticity of Demand for Dummies" Youtube. 09 Nov. 2013. Video.

Type: Required Readings

•Bryan Buckley. "Categories of Elasticity" Youtube. 23 May. 2013. Video.

Type: Required Readings

•"Chapter 5: Elasticity: A Measure of Response" UMN open textbook. eBook.

Type: Required Readings

Course Consumer and Producer Surplus

•Andrew Hingston. "Price floors and surplus" Youtube. 15 Feb. 2010. Video. 22 of 61

Type: Required Readings

•Economicsfun. "How to calculate Excise Tax and the Impact on Consumer and Producer Surplus" Youtube. 18 Mar. 2012. Video.

Type: Required Readings

•"Demand and Consumer Surplus" UMN open textbook. eBook.

Type: Required Readings

•Melissa Trussell. "Econ Lecture - Consumer Surplus" Youtube. 18 Apr. 2013. Video.

Type: Professor Recommended

Informational Note (How to use this document and links):

The links above will take you to your learning resource. Some may require you to log into your campus services (e.g. LMS, Academic Library). If so, please click on the link above, log into the required service then click again on the link in this document once logged in. If you have any problems, please contact your campus technology helpdesk.



Distance Learning Center

January 17, 2018

Elke M Leeds, Ph.D. Associate Vice President – Academic Affairs Technology Enhanced Learning Institute for CyberSecurity Workforce Development Kennesaw State University 3203 Campus Loop Road Kennesaw, GA 30144

Dear Affordable Learning Georgia Grant Review Committee,

Please accept this letter of recommendation for the attached Affordable Learning Georgia Textbook Transformation grant submitted by Dr. Charity Bryan. I give this grant application my full support and highest endorsement. The grant team of Dr. Bryan, Dr. Purcell, and Ms. Jones represents the best and most innovative faculty thinkers at Kennesaw State University. The proposal seeks to implement no-cost open educational resources (OERs) for three courses across three different colleges: HPE 3100 (Behavioral and Psychological Aspects of Physical Education and Coaching); LDRS 3400 (Service as Leadership); and CSE 1301 (Programming and Problem Solving 1).

HPE 3100 is an upper level course taken by Health Promotion and Physical Education majors, as well as Sport Management majors. In addition, Psychology majors are allowed to take the course as one of their electives. LDRS 3400 is a course in a fully online program and is slated to be part of the Leadership Studies Program, with an annual estimated enrollment of almost 2,000 students. CSE 1301 is the main lower-division course offered in the College of Computing and Software Engineering, and student performance in this course is critical to their future in the major as students must have a strong programming foundation in order to be successful. It is also a critical course in the pathway to the B.S. in Cybersecurity, Kennesaw State's first eMajor degree program.

Each semester the College of Computing and Software Engineering offers multiple sections of CSE 1301 face-to-face and several under the CYBR prefix as an online offering. In addition, HPE 3100 and LDRS 3400 are online courses that have met the requirements of Quality Matters at Kennesaw State University. Each of these are high demand courses impacting approximately 1900 students in the upcoming academic year (summer 2018; fall 2018; spring 2019).

The current textbook cost for HPE 3100 is \$62/student; LDRS 3400 is \$45/student, and materials/book for CSE 1301 is \$174.98/student. By using quality, no-cost OERs in these three courses, students will save a total of \$294,268.40 in the upcoming academic year (summer 2018; fall 2018; spring 2019).

3203 Campus Loop Rd., • MD #5800 • House #58 • Kennesaw, GA 30144-5591



Distance Learning Center

The faculty representatives are highly qualified to work on the textbook transformation project. These faculty members are known as innovative and experienced scholars who embrace technology enhanced learning for the benefit of students. I can think of no better faculty to make this important work a reality.

It is our sincere desire at Kennesaw State University to create a culture of using OERs when appropriate and in a wider context across the university. I have worked extensively with faculty to support technology enhanced learning, and I can think of no better way to advance this mission than through the Affordable Learning Georgia grant. These faculty members have the skills and expertise to curate high quality materials for this project. In addition, with the support of Intellus Learning, our faculty will have the necessary support they need to transform their courses efficiently and begin the transformation process immediately.

At KSU, online courses go through Quality Matters (QM) re-review every three years. With the implementation of OERs in HPE 3100 and LDRS 3400, both of which are online, these courses would go through the QM re-review process prior to being offered. This process will also allow the faculty to work with our KSU Instructional Designers to ensure the courses are designed in such a way that supports student success. By collaborating with Intellus Learning, all three courses will have a sustainability plan where curated materials will be retained, even if the Intellus Learning license is not renewed. This process is explained more fully in the proposal. Therefore, sustainability is not a concern and will be easily achieved in the coming years for each of these courses.

In summary, I fully support this grant proposal and sincerely hope the committee will fund it so that these courses can be transformed, and students can engage in these courses with no additional cost burden. If you have any questions, or if I can be of any assistance, please do not hesitate to contact me at eleeds@kennesaw.edu or 470-578-7550.

Sincerely,

Al. ml

Elke M Leeds, Ph.D. Associate Vice President – Academic Affairs

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Affordable Learning Georgia Textbook Transformation Grants Round Nine For Implementations beginning Summer Semester 2017 Running Through Spring Semester 2018

Proposal Form and Narrative

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

https://gatech.infoready4.com/#competitionDetail/1757803

• Italicized text is provided for your assistance; please do not keep the italicized text in your submitted proposal. Proposals that do not follow the instructions may be returned.

Submitter Name	Charity Bryan
Submitter Title	Associate Professor and Director of Technology Enhanced Learning
Submitter Email	cbryan4@kennesaw.edu
Submitter Phone Number	470-578-4937
Submitter Campus Role	Select: Proposal Investigator (Primary or Additional); Sponsored Programs Office; Grants Office, Business Office; Provost/Academic Affairs Office; Other
Applicant Name	Charity Bryan
Applicant Email	cbryan4@kennesaw.edu
Applicant Phone Number	470-578-4937
Primary Appointment Title	Associate Professor and Director of Technology Enhanced Learning
Institution Name(s)	Kennesaw State University

Team Members	(Name, Title, Department, Institutions if different, and email address for each)		
	Charity Bryan, PhD Associate Professor and Director of Technology Enhanced Learning Technology Enhanced Learning <u>cbryan4@kennesaw.edu</u>		
	Jennifer W. Purcell, EdD Assistant Professor Department of Leadership and Integrative Studies jpurcell@kennesaw.edu		
	Sandra Jones, M.S. Senior Lecturer Software Engineering and Game Development <u>sjone383@kennesaw.edu</u>		
Sponsor, Title, Department, Institution	Technology Enhanced Learning Kennesaw State University		
Proposal Title	Cross-Disciplinary Course Transformations: Supporting Affordability through OERs in Liberal and Professional Studies; Health and Human Services; and Computing and Software Engineering.		
Course Names,	Course #1:		
and Semesters	Education and Coaching		
Offered	HPE 3100 Offered: summer, fall, spring (online)		
	<u>Course #2:</u> Service as Leadership LDRS 3400		
	Offered: summer, fall, spring (online)		
	<u>Course #3:</u> Programming and Problem Solving 1 CSE 1301 Offered: summer, fall, spring (face-to-face)		

Final Semester of Instruction	Fall 2018				
Average Number of Students Per Course Section	Fall/Spring / Summer HPE3100- 40-50 LDRS3400- 40-45 CSE1301- 35-40	Number of Course Sections Affected by Implement ation in Academic Year	Fall/Spring /Summer HPE 3100- 5 LDRS 3400- 3400- 3400- 5	Total Number of Students Affected by Implementa tion in Academic Year	Fall/ Spring/ Summe r HPE 3100- 200-25 0 LDRS 3400- 120-13 5 CSE 1301- 1600
Average Number of Students Per Summer Semester	HPE 3100 – 40 students LDRS 3400 – 40 students CSE 1301 - 110 students				
Average Number of Students Per Fall Semester	HPE 3100 – 80 students LDRS 3400 – 40 students CSE 1301 - 930 students				
Average Number of Students Per Spring Semester	HPE 3100 – 40 students LDRS 3400 – 40 students CSE 1301 - 540 students				

Award Category (pick one)	⊠ No-or-Low-Cost-to-Students Learning Materials □ Specific Core Curriculum Courses
Are you planning on using an OpenStax textbook?	 ☑ Yes □ No In some of the courses we develop, and where they are available, there is a strong likelihood for us to curate an Openstax book in its entirety and then supplement or augment the book. We will also likely adopt Openstax chapters from select books where they are available and the best resource to cover the learning objectives we are working to cover.
List the original course materials for students (including title, whether optional or required, & cost for each item)	[Material Title, optional or required] HPE 3100 Required Weinberg, R. and Gould, D. (2015). Foundations of sport and exercise psychology. Sixth edition, Champaign, IL: Human Kinetics. \$62.00 <u>LDRS 3400</u> Required Komives, S.R. & Assoc. (2016). Leadership for a better world: Understanding the social change model of leadership development (2nd ed.). San Francisco: Jossey-Bass. \$45.00 <u>CSE 1301</u> Required Fundamentals of Computer Programming with C# by Svetlin Nakov, Veselin Kolev & Co. Freely available online at: http://www.introprogramming.info/english-intro-csharp-book/ \$0
	Required Intro to Java Programming, Comprehensive Version, Y. Daniel Liang. eTextbook \$104.99

	Required Introduction to Programming with Greenfoot: Object-Oriented Programming in Java with Games and Simulations, by Michael Colling. eTextbook \$69.99
Requested Amount of Funding	 \$24,800 \$5000 per team member to develop OER course (3 team members; \$15,000 total) \$9000 for Intellus Learning (one-year license) \$800 for travel and expenses (for two team members to attend required ALG meeting)
Original Per Student Cost	HPE 3100\$62.00 total LDRS 3400\$45.00 total CSE 1301\$174.98 total
Post-Proposal Projected Per Student Cost	HPE 3100\$0 total LDRS 3400\$0 total CSE 1301\$0 total
Projected Per Student Savings	HPE 3100: students will save \$62/each LDRS 3400: students will save \$45/each CSE 1301: students will save \$174.98/each
Projected Total Annual Student Savings	This is the total number of students affected by implementation in the academic year multiplied by the per-student savings estimate. Projected total annual student savings = \$294,268.40 based on enrollment for Year One following course transformation. (see Course Enrollment and Cost Chart for explanation)

[Proposal No.]

NARRATIVE

1.1 PROJECT GOALS

List the goals you are trying to achieve with the transformation, including goals for student savings, student success, materials creation, and pedagogical transformation.

This project seeks support from the Affordable Learning Georgia (ALG) initiative to implement open educational resources in three courses (HPE 3100: Behavioral and Psychological Aspects of Physical Education and Coaching, LDRS 3400: Service as Leadership, CSE 1301: Programming and Problem Solving 1), across three colleges at Kennesaw State University (KSU). As an institution, we strive to further the mission of ALG and increase the scope of courses using open educational resources (OERs) in order to provide students with low and no-cost learning materials. The three courses are representative of exemplary courses in their respective disciplines, with the online courses (HPE 3100 & LDRS 3400) having been approved through KSU's internal, faculty peer-review process of Quality Matters (QM). Broadly, the project goals include:

1. Transformation of high demand courses to include open educational recourses;

2. Support cost savings for students enrolled in the transformed courses;

3. Provide professional development for faculty and course developers involved in the project; and

4. Expand awareness of the Affordable Learning Georgia and initiative and OER resources across the university such that additional faculty may be encouraged to adopt low and no-cost course materials.

The primary goal of the project is to transform high demand courses to include open education resources. As the OER movement gains momentum and the quality and scope of available materials expand, KSU and its USG peers may serve as a leader in course transformations across a variety of institutional types. Through the proposed course transformations, we will support Chancellor Wrigley's goal to increase college affordability as well as alleviate the financial burden associated with textbook purchases for students in the selected courses. In addition, the transformation of CSE 1301 directly supports the Governor's High Demand Career Initiative by transforming a required course in computer programming and problem solving. We believe that students will be more successful in these courses since all of the needed resources and materials will be provided to them at no cost. In addition, this project will allow the faculty members to fully vet and identify course resources that will be at least equal to, and possibly better than, the current textbooks being used. From a pedagogical standpoint, if funded, this shift to open access resources will allow faculty to include the most current research and latest trends in their respective areas.

If funded, the three faculty members agree to share their experiences using OER content across campus. We anticipate using this project to launch further OER transformations in additional courses across campus. Kennesaw State University stands to become a leader in integrating OER resources and, if funded, this project will serve as a springboard for future course transformations across colleges.

Please see the Course Enrollment and Cost Chart below for a summary of the impact of transitioning the three selected course to OER courses.

Course	Summer 2017	Fall 2017	Spring 2018	Projectec Enroll (summe fall 2 spring	l 2018-19 Iment er 2018, 018, 2019)	Cost of previously used textbook and other materials	Total Cost Savings in AY 2018-19
				Number of Sections	Total Number of students		
HPE 3100	40	40	80	5 (1 summer; 2 fall; 2 spring)	200	\$62/student	\$12,400 (\$62 x 200 students)
LDRS 3400	40	40	40	3 (1 summer; 1 fall; 1 spring)	120	\$45/student	\$5400 (\$45 x 120 students)
CS 1301	110	930	540	40 sections per year	1,580	\$174.98/student	\$276,468.40 (\$174.98 x 1,580 students)
Total:	190 students	1,010 students	660 students	48 sections	1,900 students		\$294,268.40 *

Course Enrollment and Cost Chart

*Projected savings for year one.

1.2 STATEMENT OF TRANSFORMATION

- Describe the transformation.
- Identify stakeholders affected by the transformation.
- Describe the impact of this transformation on stakeholders and course success.
- Describe the transformative impact on the course, program, department, institutions, access institution, and/or multiple courses.

Describe the Transformation

As presented the data provided in Table 1, the cost savings to students across the three courses will be \$294,268.40 in year one. Converting these courses to using OER resources will transform the courses by ensuring that all materials are the most up-to-date and relevant for instruction and provide a significant cost savings to students enrolled in the courses.

Through a partnership with Intellus Learning, faculty will be provided with the tools they need to be able to find, evaluate and curate quality OER and Library Resources. Faculty involved in the project will transition from their traditional textbooks and curate courses with OER, Library, and/or Locally Authored Resources.

The ALG grant will support a complete course transition to open access materials; thereby eliminating the required textbook purchase for students enrolled in HPE 3100, LDRS 3400, and CSE 1301. Once a complete curation of alternative open access course materials that support achievement of the course learning outcomes has been established, the faculty course developer will create supplemental learning activities and assessments to ensure alignment with the newly adopted open access course learning materials.

Specifically, for CSE 1301, the OERs will focus on fundamentals as defined by the ACM and IEEE professional societies in computing and provide examples in multiple modern programming languages, making it usable in many universities providing an intro to programming course.

Identify stakeholders affected by the transformation

The stakeholders affected by the transformation include the following:

- Three faculty team members (Dr. Bryan, Dr. Purcell, Ms. Jones): will be responsible for converting their courses to using OERs.
- LMS Administrators: will assist with linking the OER materials into D2L.
- Library Administrators: will assist with obtaining OER materials as needed in the three course.
- KSU Administration: will assist by supporting the efforts of the stakeholders across campus who are working to support the OER implementation into these courses.
- Instructional Designers: will assist the three faculty team members to ensure the design of their revamped courses meet Quality Matters standards (for online courses HPE 3100 and LDRS 3400), as well as assist with the implementation of the OERs as needed.

Instructional designers will also assist in helping the faculty team members ensure that their courses are designed with the new OERs in a way that is student friendly and pedagogically meaningful.

- Employers: Agencies or other entities who will hire our students as interns or for permanent positions are also stakeholders who may be affected by this transformation.
- Students: the 1900 students who will be impacted in an academic year by these revised courses using OERs are likely the greatest stakeholders of all. By providing students with the latest information and materials, at no cost, students certainly stand to be most transformed by this grant.

Describe the impact of this transformation on stakeholders and course success The project will impact a variety of stakeholders, including the following.

Faculty Development Team

By collaborating with Intellus Learning, the faculty members will be provided with the single largest repository of free resources to search and curate. This partnership will not only provide a significant time saving for the faculty members, but it will also allow the faculty to have guided help during the entire transformation process. Intellus Learning will also provide the faculty with analytics on student engagement for continuous course improvement and will alert faculty within 24 hours if a link they are using is broken or updated.

LMS Administrators

This transformation will help drive usage of the LMS with instructors integrating Intellus Learning materials within D2L. In addition, there will be a SSO (single sign on) of all curated content for students within the LMS.

Library Administrators

Will help drive adoption, usage and analytics of library resources used in the transformation of the courses to OER content. The KSU Library administration also support the institution by providing information on usage of library resources.

KSU Administration

The KSU administration is ultimate responsible to pursue initiatives which help drive student success, equity and engagement. One significant way to make this happen is with quality and openly accessible resources.

Instructional Designers

Instructional designers from the KSU Distance Learning Center support faculty in their course redesign, as well as assist with content curation of library resources and OERs. Instructional designers can specifically assist with the following:

Development of instructional materials and products for technology-based redesign of courses.

0

- Mentoring of faculty on how to use instructional technology effectively or to use best practices to integrate technology with teaching.
- Conducting a needs assessment and strategic learning assessment to develop the basis for curriculum development or to update curricula.
- o Designing instructional aids for hybrid and online courses.
- o Designing learning products, including web-based aids or electronic performance support systems.
- o Planning, shooting and producing video materials for use in online and hybrid courses.
- 0 Providing guidance on the closed captioning process

Employers

The impact to employers will be evident upon hiring KSU students from one of the three courses as an intern, or fulltime employee. The use of OERs will allow the faculty to provide students with the most up-to-date resources, as well as the most current trends. This will result in a more educated and adaptable workforce. Given that one of our goals is to spread the OER message to other faculty across campus, we would like to see this benefit extend to multiple disciplines across campus, thus affecting more and more employers over time.

Students

This project will likely impact students in the most meaningful way by allowing for open access to free resources. By transitioning to OERs, there will be no barriers to course entry due to trying to obtain the required course materials. In addition, this transformation allows for more engaging learning resources as well as meeting the needs of diverse learners.

HPE 3100 Students

At the course level, HPE 3100 students will transition from what is currently a heavy reliance on the textbook to more varied resources and OER content. The \$62 per student savings will translate to \$12,400 in savings in one academic year (summer 2018; fall 2018; spring 2019). In addition, moving to an OER concept in the course will allow for more unique learning activities that will meet the needs of all students and still ensure the pertinent content is covered for students who will work with individuals, teams, and clients in sport related settings. As stated previously, one of the goals of this project is to evangelize to the wider campus the value of OERs. In the Department of Health Promotion and Physical Education (HPE), this project will potentially lead to the adoption of other OERs for additional courses. If funded, HPE 3100 could become the exemplar in the Department of Health Promotion and Physical Education for the use of OERs.

LDRS 3400 Students

LDRS 3400 students will have access to a robust curation of open access materials similar in

quality, scope, and depth to the existing required textbook. The cost-saving, free access alternative will equally support achievement of the established course learning outcomes and student success while simultaneously alleviating the financial burden of procuring a required text. In year one, students enrolled in LDRS 3400 will save approximately \$5,500. This savings will compound each year as additional sections of the course are anticipated to be offered in response to student enrollment demand. Specifically, projected offerings for this course are expected to increase 100%. Therefore, the savings could exceed \$10,000 for this course alone in year two following the adoption of the course transformation. Additionally, faculty and staff will save time and resources each semester that are routinely required for communication within the department and with the university bookstore regarding textbook adoptions. The grant award will also support internal Quality Matters review of the revised course through an existing distance learning support unit.

CSE 1301 Students

All students successfully accepted to, and entering any major within the College of Computing and Software Engineering, will be required to complete the programming sequence currently under development (the revamped CSE 1301). The specific impact to each of the stakeholders and the overall success of the courses includes: (1) benefitting students, who will receive the most from the course with up-to-date information and in-depth understanding of the emerging trends and technologies in Computing and Software Engineering, helping them become better prepared for the field at no cost to them; (2) benefitting instructors with the latest, comprehensive content and resources in Computing and Software Engineering and ready-to-teach course packages in D2L; and (3) subsequently benefitting the hiring companies, who are in need of the students that we are educating.

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

<u>Courses</u>

HPE 3100 will be transformed by providing students an upper level course, which is required of HPE majors for graduation, by allowing students to successfully complete the course at no additional cost. In addition, students from other majors (Sport Management, Psychology, etc.) will also reap the benefit of the transformation to an OER platform in HPE 3100. Students will also be transformed through the course by engaging with the most current resources as well as current event case studies and other issues in sport and physical activity psychology.

The proposed course transformation for LDRS 3400 will increase the affordability of an upper-level undergraduate course through the elimination of its current required textbook in favor of open resource materials. This particular niche course will serve as a pilot for the Leadership Studies Program, which has annual enrollment nearing 2,000 across 12 unique courses.

Immediate access to freely available and current resources would increase the chances that any student enrolled in CSE 1301 would be successful. As shown below, success in this course has a direct effect on not only the programs and departments in CCSE, but also the institution.

<u>Program</u>

The OER project will be transformational for the Health Promotion and Physical Education (HPE) Program by being among the first to implement OERs in an upper level course. If funded, this project has the potential to lead to numerous other courses in HPE becoming OER courses, thus saving HPE majors even more money across their educational experience.

Additional degree programs within University College will be encouraged to adopt open resource course materials based on the demonstrated success on the proposed transformation. As with the other courses in this project, LDRS 3400 could be the first in a subsequent transition for other courses in the college.

All of the programs in the College of Computing and Software Engineering (CCSE) require a strong programming foundation in order to be successful. A strong start in the CSE 1301 course could potentially positively impact our current retention, progression, and graduation rates in these programs. The programs directly impacted by this project would be:

- BS in Computer Science
- BA in Applied Computer Science
- BS in Information Technology
- Bachelor of Applied Science in Information Technology
- BS in Software Engineering
- BS in Computer Games Design and Development

Department

The Department of Health Promotion and Physical Education offers an undergraduate degree in Public Health Education and a P-12 teacher preparation program in Health and Physical Education. The Department also offers minors in both Coaching and Public Health Education which are open to any degree seeking undergraduate KSU student. While students in the Public Health Education major do not take HPE 3100, the conversion of this course to using OERs can serve as a catalyst for other courses in the P-12 teacher preparation program as well as the Public Health Education major to consider seriously the adoption of free and open source materials. We believe this grant can be transformational for the department as a whole.

As indicted previously, additional programs within University College will be encouraged to adopt open resource course materials. As with the other courses in this project, LDRS 3400 could be the first in subsequent transitions for other courses in the college.

The College of Computing and Software Engineering is comprised of three departments: Computer Science, Information Technology, and Software Engineering/Game Development and Design. All students in any program offered in these departments are required to take CSE 1301 during their first or second semester as students within CCSE. We believe these departments may seriously consider the adoption of open source materials in other courses later in the programs given the large scale implementation of CSE 1301. While the initial grant may only be for three courses (HPE 3100, LDRS 3400, and CSE 1301), we believe there is potential for widespread adoption based on the successful implementation of these first three courses across three different colleges.

Institution

HPE 3100 is open to all students, but is part of the curriculum for Health and Physical Education (P-12 teacher preparation) and Sport Management. The course also counts as an elective for Psychology majors. Similarly, LDRS 3400 has a very wide audience of students across campus. In addition to servicing students of CCSE, the CSE 1301 course satisfies Area D of the General Education Core Requirements set forth by the University System of Georgia at some universities. At KSU, we plan to add CSE 1301 into Core Area D within the next year or two.

We believe that, if funded, the transformation of these courses can serve as a catalyst within the respective Colleges, and that message can be broadened to the entire campus through avenues such as Dean's meetings, the KSU Unconference on Online Education, and other presentations across the institution.

A CSE 1301 course that teaches foundational topics (primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, using and designing basic classes, single dimension arrays with searching and sorting) transfers seamlessly across institutions. The topics covered in this course are applicable broadly to many USG computing programs and follow industry-recognized topics as defined by the ACM, IEEE, and ABET.

Multiple Courses

A strong programming foundation is critical for success in 12-15 subsequent courses that are a part of CCSE. Transforming CSE 1301 to an open education platform, with no textbook cost, has the potential to increase student success in the subsequent courses that require a strong background in programming. In addition, Drs. Bryan and Purcell believe that HPE 3100 and LDRS 3400, respectively, can pave the way for future course transformations in multiple courses in the WellStar College of Health and Human Services, which houses HPE, as well as University College, which houses LDRS.

1.3 TRANSFORMATION ACTION PLAN

Action plans must address:

- The identification, review, selection, and adoption/adaptation/creation of the new course materials.
- The course and syllabus instructional design/redesign necessary for the transformation.
- The activities expected from each team member and their role(s): subject matter experts, instructional designer, librarian, instructor of record, et al.
- The plan for providing open access to the new materials.

The three team members plan a systematic review of no-cost resources for the courses in the proposal. The timeline below provides details on when each step of the process will occur. As part of the grant, if funded, we will partner with Intellus Learning who will assist the three faculty members in the identification, review, selection, adaptation, and/or creation of the new course materials. Intellus Learning works with faculty members to quickly access high-quality open education resources, as well as their institution's academic library materials to help replace expensive course materials. In addition, Intellus Learning provides faculty with powerful, real-time data related to students' engagement with the assigned content.

As the subject matter experts, Dr. Bryan, Dr. Purcell, and Ms. Jones will engage in revisions to both the course materials housed in D2L which may include, but is not limited to, assignments, practice exercises, quizzes, tests, laboratory activities, case studies, discussion boards/class discussions, etc. In addition, the faculty will revamp their course syllabi as appropriate, based on the course transformation to using OERs. All OER resources will be provided to students through D2L.

Team Member	Course	Role/Responsibility
Dr. Charity Bryan	HPE 3100	Project lead and subject matter expert in sport psychology. Will prepare all revised course materials, using OERs, for HPE 3100 and will serve as instructor of record, teaching two sections of the course each fall and spring semester (one section in summer). Will attend kickoff meeting
Dr. Jennifer Purcell	LDRS 3400	Subject matter expert in leadership. Will prepare all

The responsibilities of each team member are outlined below.

		revised course materials, using OERs, for LDRS 3400 and will serve as instructor of record, teaching one section of the course each fall, spring, and summer semester. (Will decide if Dr. Purcell or Ms. Jones attends the Kickoff Meeting).
Ms. Sandra Jones	CSE 1301	Subject matter expert in programming. Will prepare all revised course materials, using OERs, for CSE 1301 and will serve as instructor of record. Multiple sections of this course are taught each fall, spring, and summer semester. (Will decide if Dr. Purcell or Ms. Jones attends the Kickoff Meeting).

1.4 QUANTITATIVE AND QUALITATIVE MEASURES

- The quantitative and qualitative measures of impact on student success and experience. The quantitative and qualitative data collected will be utilized in your final report as well as within ALG program communications.
- It is important to identify how the data is to be analyzed for each data source. In specific, the action plan must address the project's quantitative impact on student success (items such as Learning Objective success, Drop, Fail, Withdraw (DFW) delta rate, and any other critical factors) to measure impact on student experience.
- Qualitative measures can include student feedback through surveys, interviews, focus groups, or other means.

In order to assess the effectiveness of the transition to open educational resources in HPE 3100, LDRS 3400, and CSE 1301, the faculty members will utilize both qualitative and quantitative measures. For each course, a survey instrument will be designed to gather qualitative student feedback, specifically related to the OERs, at the end of the semester. In addition to the qualitative survey distributed at the end of the course, a mid-course check in will also be used to determine if corrections need to be made at mid-semester. The mid-course check in will be a shorter survey designed to give the faculty members an idea of whether or not there are any significant gaps as it relates to content or student understanding.

From a quantitative perspective, the three faculty members will use student performance data from previous semesters, prior to using OERs, and compare it to the student performance data once OERs were implemented. This student performance data will include overall grade in the course as well as comparison of performance on significant courses assignments that cover multiple course objectives (i.e. written papers, projects, etc.). In addition, we will examine the number of D's, F's, and W's (withdrawals) that occurred both before and after the transformation to open educational resources in each of the three courses.

Data Source	Narrative
Qualitative Data	Qualitative Assessment #1: Mid-course "check in" survey. Short 4-5 question, written evaluation to determine how the course is going; if the OERs are supporting students in achieving the course and module objectives, etc. Qualitative Assessment #2: End of course survey. Longer survey with written responses to

The chart below provides a summary of the proposed assessment plan.

	determine how the course and the OERs worked given the perspective of having completed the course. Suggestions for future courses will be sought as well. Perceptions of OERs as well as thoughts on cost savings will also be included.	
Quantitative Data	 Student performance data will include the following quantitative measures: Overall grade in the course. Comparison of performance on significant courses assignments that cover multiple course objectives (i.e. written papers, projects, etc.). Comparison of the number of D's, F's, and W's (withdrawals) in the course preand post- OER transformation. Percentage of students achieving the learning outcomes in each module of instruction. 	
Student Evaluation of Instruction	The three faculty members will compare scores from previous Student Evaluations of Instruction to those from the OER transformational course to determine if there are differences based on these standardized evaluations.	

1.5 TIMELINE

This is a timeline of milestone dates for your transformation project through the end of the first semester the transformed course(s) is/are offered to students. Your interim reports will utilize this timeline to indicate if the project is on schedule.

When submitting this timeline in InfoReady Review, be sure to use the Paste from Word button in order to correctly paste a table from Word. Otherwise, the document will be unreadable to reviewers.

Milestone Dates	Milestone
February 15, 2018	Schedule training for three faculty members and Instructional Designers with Intellus Learning. Begin process of procuring OERs for each of the five courses.
February 16-June 30, 2018	Systematic re-design of course components that will transition to OERs. Work with Intellus Learning to obtain course materials.
July 1-15, 2018	HPE 3100 and LDRS 3400 (both online courses) undergo required Quality Matters re-review through the Office of Distance Learning.
	CSE 1301 (face-to-face) undergoes informal review by Instructional Designer at the KSU Office of Distance Learning.
July 15-30, 2018	Revisions/corrections are made to all three courses based on the review process.
	HPE 3100 and LDRS 3400 achieve QM approval status.
August 10, 2018	Revised courses will be completed in course shells in D2L ready for fall

	semester.	
August – December 2018	Courses are taught with new OER transformation complete. Data collection takes place in each course this semester (mid-term check in; end of semester survey; Student Evaluation of Instruction; student performance data. See assessment plan for more information).	
December 2018 - January 2019	Course revisions are made (prior to teaching the courses in spring semester) based on student evaluations and experiences in fall semester.	
January - April 2019	HPE 3100, LDRS 3400, and CSE 1301 are taught in spring semester using OERs. Data collection process continues in order to support course refinement.	
May 2019	Course revisions are made (prior to teaching the courses in summer) based on student evaluations and experiences in the spring term.	
June - August 2019	HPE 3100, LDRS 3400, and CSE 1301 are taught in summer semester using OERs. Data collection process continues in order to support course refinement.	
Course revision process and teaching cycle continues. OERs continue to be updated as needed in future semesters. Dr. Bryan, Dr. Purcell, and Ms. Jones continue to work within their respective departments/colleges to encourage others to use OERs where appropriate.		

1.6 BUDGET

\$24,800 total request

Expense Category		Description	Expense
Team Members			
	Dr. Charity Bryan	Project lead and subject matter expert in sport psychology (HPE 3100). Will prepare all revised course materials, using OERs, for HPE 3100 and will serve as instructor of record, teaching two sections of the course each fall and spring semester (one section in summer). Will attend kickoff meeting	\$5000
	Dr. Jennifer Purcell	Subject matter expert in leadership (LDRS 3400). Will prepare all revised course materials, using OERs, for LDRS 3400 and will serve as instructor of record, teaching one section of the course each fall, spring, and summer semester. (Will decide if Dr. Purcell or Ms. Jones attends the Kickoff Meeting).	\$5000
	Ms. Sandra Jones	Subject matter expert in programming (CSE 1301). Will prepare all revised course materials, using OERs, for CSE 1301 and will serve as instructor of record. Multiple sections of this course are taught each fall, spring, and summer semester. (Will decide if Dr. Purcell or Ms. Jones attends the Kickoff Meeting).	\$5000
One year license to support OER curation			

	Intellus Learning	Intellus Learning empowers instructors to quickly access high-quality open educational resources (OER), as well as their institution's academic library materials to help replace expensive course materials, while providing powerful, real-time insight into students' engagement with the assigned content.	\$9000
Travel			
	Travel support	Travel support for two team members to attend the ALG Kickoff Meeting	\$800

- \$15000 total for team member compensation
- \$9000 for Intellus Learning (one-year license) <u>www.intelluslearning.com</u>
- \$800 for travel and expenses (for two team members to attend required ALG Kickoff meeting)

1.7 SUSTAINABILITY PLAN

What is your plan for offering the course in the future, including maintenance and updating of course materials?

All courses included in this project will be offered at Kennesaw State University indefinitely. HPE 3100 is a required course for both HPE majors, as well as Sport Management majors. In addition, Psychology majors are allowed to take the course as an elective.

LDRS 3400 is an online course that is routinely offered for majors in the fully online Bachelor of Science in Integrative Studies. In addition, since LDRS 3400 will serve as a pilot for the Leadership Studies Program, with an annual enrollment nearing 2,000 students, this course will most certainly be offered for the foreseeable future at Kennesaw State University.

If the grant funding or institutional funding for an Intellus Learning license is not renewed, Intellus provides a print out where faculty can keep their entire course structure as well as the links to the content they have curated. Faculty would will lose access to the LMS integration and analytics provided by Intellus Learning, the faculty will not lose their work or the resources obtained. Faculty would be able to reintegrate links within D2L if the institution did not renew the license with Intellus Learning. Below is an example of what the document looks like that preserves faculty work and resources.

ECON 151 - Introduction to Economics (DEMO) Instructor: David Webster <Webster@acelearningco.com>

Course Description:

Economics is a subject whose scope of study pervades much of our daily life, so it is essential that as citizens we understand it on at least a basic level. This course is intended to familiarize students with the fundamental concepts governing our economic interactions, institutions, and policies, and to furnish them with an analytical framework with which to view the functioning of economies in a more critical light.

Course Resources:

Course Supply and Demand

•economicurtis. "Supply and Demand Curve Analysis" Youtube. 03 Jul. 2012. Video.

Type: Required Readings

Description

This video will provide you with an example of a shifting demand curve based on a variable such as a change in consumer income.

Pre-Instructions:

Watch this video to learn about the impact of specific variables on the demand curve.

Post-Instructions:

Now that you have watched this video, you should be able to describe how non-price variables cause a shift in the demand curve.

•"Economics of Supply" Merlot. unomaha.edu, 02 Nov. 2003. Tutorial.

Type: Required Readings

Description

This resource explains what causes changes in demand and quantities demanded.

Pre-Instructions:

Work through Topic 1: Distinguishing Demand and Quantities Demanded in this Lesson Presentation to learn about changes in demand and quantity demanded.

Post-Instructions:

Now that you have reviewed this content, you should be able to describe the difference and reasons for change in demand and quantity demanded.

•"Supply And Demand." Library (EBSCO). Business Source Complete [bth], 19 Feb. 2015. Article/Journal.

Type: Required Readings

•"Chapter 3: Demand and Supply." OpenStax College. eBook.

Type: Required Readings

Description

This reading will teach you about the variables that influence both demand and supply. You will read about what makes up supply and demand and what components can cause shifts in the market.

Pre-Instructions:

Read pages 70–82 to learn about both the demand and supply sides of the market.

Post-Instructions:

Now that you have completed this reading, you should be able to describe the law of supply and the law of demand and know how they affect markets.

•"Case Study on Water: Supply and Demand" Library (EBSCO). Academic Search Complete [a9h], 31 Dec. 2013. Article/Journal.

Type: Required Readings

Description

A great study on water supply and how it affects the local economy.

Pre-Instructions:

Spend 15-20min on reading this case study. Do not read for detail/memorizing, simply understand how economists view this topic.

Post-Instructions:

Bring three take-away items to class for discussion.

•Richard Gosselin. "Equilibrium Condition with Supply and Demand Curves" Youtube. 19 Feb. 2010. Video.

Type: Required Readings

Description

This video will provide you with an example of a shifting demand curve based on a variable such as a change in consumer income.

Pre-Instructions:

Watch this video to learn about the impact of specific variables on the demand curve

Post-Instructions:

Now that you have watched this video, you should be able to describe how non-price variables cause a shift in the demand curve.

•"Principles of Macroeconomics > Chapter 3: Demand and Supply." OpenStax College. eBook.

Type: Required Readings

•Bryn Jones. "Supply & Demand" Youtube. 01 May. 2008. Video.

Type: Required Readings

Course Elasticity

•"It's Not Inflation It's Price Elasticity!" Library (EBSCO). Business Source Complete [bth], 06 Mar. 2011. Article/Journal.

Type: Required Readings

Description

Helps to explain the differences between general market inflation and the specifics of particular prodcution/resource price elasticity.

Pre-Instructions:

Spend 15-20 minutes reading this. No more! This is dense reading but great insight into the realities of elasticity in the market.

•Economics Course. "Chapter 5. Elasticity and Its application." Youtube. 13 Dec. 2015. Video.

Type: Required Readings

Description

This video explains how demand curves can be elastic or inelastic in a real-world scenario involving the price of gasoline.

Pre-Instructions:

Watch the video to learn about elastic and inelastic demand.

Post-Instructions:

Now that you have watched this video, you should be able to analyze when a demand curve is elastic or inelastic.

•"Chapter 5: Elasticity" OpenStax College. eBook.

Type: Required Readings

Description

This reading focuses on defining and measuring price elasticity of demand. You will also learn about inelastic demand, elastic demand, perfectly elastic demand, perfectly inelastic demand, and unit elastic demand.

Pre-Instructions:

Read pages 172–178 to learn about price elasticity of demand and its measurement.

Post-Instructions:

Now that you have completed this reading, you should be able to explain the different types of elastic and inelastic demand.

•Free Econ Help. "How to Solve Elasticity Problems in Economics" Youtube. 21 Sep. 2011. Video.

Type: Required Readings

•"Chapter 5: Elasticity" OpenStax College. eBook.

Type: Required Readings

•Garg University. "Price elasticity of Demand for Dummies" Youtube. 09 Nov. 2013. Video.

Type: Required Readings

•Bryan Buckley. "Categories of Elasticity" Youtube. 23 May. 2013. Video.

Type: Required Readings

•"Chapter 5: Elasticity: A Measure of Response" UMN open textbook. eBook.

Type: Required Readings

Course Consumer and Producer Surplus

•Andrew Hingston. "Price floors and surplus" Youtube. 15 Feb. 2010. Video.

Type: Required Readings

•Economicsfun. "How to calculate Excise Tax and the Impact on Consumer and Producer Surplus" Youtube. 18 Mar. 2012. Video.

Type: Required Readings

•"Demand and Consumer Surplus" UMN open textbook. eBook.

Type: Required Readings

•Melissa Trussell. "Econ Lecture - Consumer Surplus" Youtube. 18 Apr. 2013. Video.

Type: Professor Recommended

Informational Note (How to use this document and links):

The links above will take you to your learning resource. Some may require you to log into your campus services (e.g. LMS, Academic Library). If so, please click on the link above, log into the required service then click again on the link in this document once logged in.

If you have any problems, please contact your campus technology helpdesk.

1.8 REFERENCES & ATTACHMENTS

A letter of support must be provided from the sponsoring area (unit, office, department, school, library, campus office of the Vice President for Academic Affairs, etc.) that will be responsible for receipt and distribution of funding. Letters must reference sustainability. In the case of multi-institutional affiliations, all participants' institutions/departments must provide a letter of support.

Technology Enhanced Learning at Kennesaw State University will be the sponsoring area for the grant. Below is a letter of support from Dr. Elke Leeds, Associate Vice President of Technology Enhanced Learning.



Distance Learning Center

January 17, 2018

Elke M Leeds, Ph.D. Associate Vice President – Academic Affairs Technology Enhanced Learning Institute for CyberSecurity Workforce Development Kennesaw State University 3203 Campus Loop Road Kennesaw, GA 30144

Dear Affordable Learning Georgia Grant Review Committee,

Please accept this letter of recommendation for the attached Affordable Learning Georgia Textbook Transformation grant submitted by Dr. Charity Bryan. I give this grant application my full support and highest endorsement. The grant team of Drs. Bryan, Purcell, and Jones represents the best and most innovative faculty thinkers at Kennesaw State University. The proposal seeks to implement no-cost open educational resources (OERs) for three courses across three different colleges: HPE 3100 (Behavioral and Psychological Aspects of Physical Education and Coaching); LDRS 3400 (Service as Leadership); and CSE 1301 (Programming and Problem Solving 1).

HPE 3100 is an upper level course taken by Health Promotion and Physical Education majors, as well as Sport Management majors. In addition, Psychology majors are allowed to take the course as one of their electives. LDRS 3400 is a course in a fully online program and is slated to be part of the Leadership Studies Program, with an annual estimated enrollment of almost 2,000 students. CSE 1301 is the main lower-division course offered in the College of Computing and Software Engineering, and student performance in this course is critical to their future in the major as students must have a strong programming foundation in order to be successful. It is also a critical course in the pathway to the B.S. in Cybersecurity, Kennesaw State's first eMajor degree program.

Each semester the College of Computing and Software Engineering offers multiple sections of CSE 1301 face-to-face and several under the CYBR prefix as an online offering. In addition, HPE 3100 and LDRS 3400 are online courses that have met the requirements of Quality Matters at Kennesaw State University. Each of these are high demand courses impacting approximately 1900 students in the upcoming academic year (summer 2018; fall 2018; spring 2019).

The current textbook cost for HPE 3100 is \$62/student; LDRS 3400 is \$45/student, and materials/book for CSE 1301 is \$174.98/student. By using quality, no-cost OERs in these three courses, students will save a total of \$294,268.40 in the upcoming academic year (summer 2018; fall 2018; spring 2019).

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Distance Learning Center

Drs. Bryan, Purcell, and Jones are highly qualified to work on the textbook transformation project. These faculty members are known as innovative and experienced scholars who embrace technology enhanced learning for the benefit of students. I can think of no better faculty to make this important work a reality.

It is our sincere desire at Kennesaw State University to create a culture of using OERs when appropriate and in a wider context across the university. I have worked extensively with faculty to support technology enhanced learning, and I can think of no better way to advance this mission than through the Affordable Learning Georgia grant. These faculty members have the skills and expertise to curate high quality materials for this project. In addition, with the support of Intellus Learning, our faculty will have the necessary support they need to transform their courses efficiently and begin the transformation process immediately.

At KSU, online courses go through Quality Matters (QM) re-review every three years. With the implementation of OERs in HPE 3100 and LDRS 3400, both of which are online, these courses would go through the QM re-review process prior to being offered. This process will also allow the faculty to work with our KSU Instructional Designers to ensure the courses are designed in such a way that supports student success. By collaborating with Intellus Learning, all three courses will have a sustainability plan where curated materials will be retained, even if the Intellus Learning license is not renewed. This process is explained more fully in the proposal. Therefore, sustainability is not a concern and will be easily achieved in the coming years for each of these courses.

In summary, I fully support this grant proposal and sincerely hope the committee will fund it so that these courses can be transformed, and students can engage in these courses with no additional cost burden. If you have any questions, or if I can be of any assistance, please do not hesitate to contact me at eleeds@kennesaw.edu or 470-578-7550.

Sincerely,

Elke M. Leeds

Elke M Leeds, Ph.D. Associate Vice President – Academic Affairs

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