

# Grants Collection

Kennesaw State University



UNIVERSITY SYSTEM  
OF GEORGIA

Charity Bryan, Jennifer Purcell, and Sandra Jones

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# Programming and Problem Solving I

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## Grants Collection

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

Each collection contains the following materials:

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



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# Initial Proposal

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## Application Details

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### Manage Application: Textbook Transformation Grants: Round Eleven

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**Award Cycle:** Round 11

**Internal Submission Deadline:** Tuesday, January 23, 2018

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**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

**Applicant Phone Number:** 470-578-4937

**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

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**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

cbryan4@kennesaw.edu

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:**

**Course #1:**

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)

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

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

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



<b>CS 1301</b>	110	930	540	40 sections per year	1,580	\$174.98/student	\$276,468.40 (\$174.98 x 1,580 students)
<b>Total:</b>	190 students	1,010 students	660 students	48 sections	1,900 students		\$294,268.40*

\*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 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.**

#### 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 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.

### 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 indicated 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.

The responsibilities of each team member are outlined below.

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 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 Ms. Jones attends the Kickoff 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. Purcell or Ms. Jones attends 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 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. 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 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. Purcell or Ms. Jones attends the Kickoff 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. Purcell or Ms. Jones attends the Kickoff 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

Budget Summary:

\$15000 total for team member compensation

\$9000 for Intellus Learning (one-year license) [www.intelluslearning.com](http://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 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 production/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.

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## 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

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Phone (470) 578-7550 • Fax (470) 578-7597 • [www.kennesaw.edu](http://www.kennesaw.edu)



## 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](mailto:eleeds@kennesaw.edu) or 470-578-7550.

Sincerely,

A handwritten signature in black ink, appearing to read "Elke M Leeds".

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

**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.*

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

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

<b>Final Semester of Instruction</b>	Fall 2018				
<b>Average Number of Students Per Course Section</b>	<b>Fall/Spring / Summer</b>  HPE3100-40-50  LDRS3400-40-45  CSE1301-35-40	<b>Number of Course Sections Affected by Implementation in Academic Year</b>	<b>Fall/Spring /Summer</b>  HPE 3100-5  LDRS 3400- 3  CSE 1301-40-45	<b>Total Number of Students Affected by Implementation in Academic Year</b>	<b>Fall/Spring/ Summer</b>  HPE 3100-200-250  LDRS 3400-120-135  CSE 1301-1600
<b>Average Number of Students Per Summer Semester</b>	HPE 3100 – 40 students LDRS 3400 – 40 students CSE 1301 - 110 students				
<b>Average Number of Students Per Fall Semester</b>	HPE 3100 – 80 students LDRS 3400 – 40 students CSE 1301 - 930 students				
<b>Average Number of Students Per Spring Semester</b>	HPE 3100 – 40 students LDRS 3400 – 40 students CSE 1301 - 540 students				

<b>Award Category (pick one)</b>	<input checked="" type="checkbox"/> No-or-Low-Cost-to-Students Learning Materials <input type="checkbox"/> Specific Core Curriculum Courses
<b>Are you planning on using an OpenStax textbook?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.
<b>List the original course materials for students (including title, whether optional or required, &amp; cost for each item)</b>	<p><i>[Material Title, optional or required]</i></p> <p><b><u>HPE 3100</u></b>  Required  Weinberg, R. and Gould, D. (2015). Foundations of sport and exercise psychology. Sixth edition, Champaign, IL: Human Kinetics.  \$62.00</p> <p><b><u>LDRS 3400</u></b>  Required  Komives, S.R. &amp; Assoc. (2016). Leadership for a better world: Understanding the social change model of leadership development (2nd ed.). San Francisco: Jossey-Bass.  \$45.00</p> <p><b><u>CSE 1301</u></b>  Required  <i>Fundamentals of Computer Programming with C#</i> by Svetlin Nakov, Veselin Kolev &amp; Co. Freely available online at:  <a href="http://www.introprogramming.info/english-intro-csharp-book/">http://www.introprogramming.info/english-intro-csharp-book/</a>  \$0</p> <p>Required  <i>Intro to Java Programming, Comprehensive Version</i>, Y. Daniel Liang.  eTextbook  \$104.99</p>



	<p>Required</p> <p><i>Introduction to Programming with Greenfoot: Object-Oriented Programming in Java with Games and Simulations</i>, by Michael Colling. eTextbook \$69.99</p>
<b>Requested Amount of Funding</b>	<p>\$24,800</p> <ul style="list-style-type: none"> <li>• \$5000 per team member to develop OER course (3 team members; \$15,000 total)</li> <li>• \$9000 for Intellus Learning (one-year license)</li> <li>• \$800 for travel and expenses (for two team members to attend required ALG meeting)</li> </ul>
<b>Original Per Student Cost</b>	<p>HPE 3100 --\$62.00 total LDRS 3400 --\$45.00 total CSE 1301--\$174.98 total</p>
<b>Post-Proposal Projected Per Student Cost</b>	<p>HPE 3100 --\$0 total LDRS 3400 --\$0 total CSE 1301--\$0 total</p>
<b>Projected Per Student Savings</b>	<p>HPE 3100: students will save \$62/each LDRS 3400: students will save \$45/each CSE 1301: students will save \$174.98/each</p>
<b>Projected Total Annual Student Savings</b>	<p><i>This is the total number of students affected by implementation in the academic year multiplied by the per-student savings estimate.</i></p> <p>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)</p>



## 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 resources;
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 Enrollment and Cost Chart

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

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\*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:

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



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

#### 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 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.

### 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.

### 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.

The responsibilities of each team member are outlined below.

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

		<p>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.</p> <p><i>(Will decide if Dr. Purcell or Ms. Jones attends the Kickoff Meeting).</i></p>
Ms. Sandra Jones	CSE 1301	<p>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. Purcell or Ms. Jones attends the Kickoff Meeting).</i></p>

## 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.

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

Data Source	Narrative
Qualitative Data	<p>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.</p> <p>Qualitative Assessment #2: End of course survey. Longer survey with written responses to</p>

	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	<p>Student performance data will include the following quantitative measures:</p> <ul style="list-style-type: none"> <li>• Overall grade in the course.</li> <li>• Comparison of performance on significant courses assignments that cover multiple course objectives (i.e. written papers, projects, etc.).</li> <li>• Comparison of the number of D's, F's, and W's (withdrawals) in the course pre- and post- OER transformation.</li> <li>• Percentage of students achieving the learning outcomes in each module of instruction.</li> </ul>
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. <i>(Will decide if Dr. Purcell or Ms. Jones attends the Kickoff 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. Purcell or Ms. Jones attends the Kickoff 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](http://www.intelluslearning.com)
- \$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 production/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).

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

Phone (470) 578-7550 • Fax (470) 578-7597 • [www.kennesaw.edu](http://www.kennesaw.edu)



## 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](mailto: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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# Syllabus

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**COURSE SYLLABUS**

**CSE 1321, Section <xx>**

Programming and Problem Solving I

Fall 2018

**<based on section>**

**Effective August 2018**

**Lecture to accompany CSE 1321L**

**Instructor:**

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**Name:** <to be provided>

**E-Mail:** <to be provided>

Note: Official communications should be conducted between KSU email accounts in accordance with KSU Policy.

**Webpage:** <to be provided>

**Phone:** <to be provided>

**Office:** <to be provided>

**Office Hours:** <to be provided>

**Advising:** All advising questions should be directed to [ccseadvising@kennesaw.edu](mailto:ccseadvising@kennesaw.edu)

**Course website:** <http://ccse.kennesaw.edu/advising/programmingclasses.php> (includes information about open lab, available tutoring and advising)

**Preferred Method of Contact and Communication:**

<to be provided>.

**Communication Response Time:**

24 hours M-F, weekend and holiday emails are accepted on next business day.

**Course Description:**

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This course provides an introduction to computing with a focus on programming. Instruction centers on an overview of programming, problem-solving, and algorithm development. Particular topics include object-oriented design/programming, primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, exception handling, using and designing basic classes, single-dimensional data structures with searching and sorting, and arrays. Programming assignments focus on techniques of good programming style including proper documentation. The student is taught to efficiently design, code, and debug problem solutions and the relationship between correct code and security.

Prerequisites:

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Co-Requisites: CSE 1321L and (MATH 1112 or MATH 1113 or MATH 1190 or CSE 1300)  
Pre-Requisites: None.

Learning Outcomes:

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Students who complete this course successfully will be able to:

- Accurately demonstrate use of primitive data types and arithmetic expressions in programs.
- Apply basic programming structures in algorithmic solutions, including logical expressions, selection, and repetition.
- Solve programming problems that include 1D and 2D array creation, handling, searching, and sorting.
- Read and interpret simple programs written in multiple programming languages and understand what these programs do.
- Define methods and classes in program solutions.

Learning Resources:

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**Textbook:** Not required.

**Downloads from D2L:** Other electronic resources as made available by the instructor

Important Dates:

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- First Day of Classes August 13 (M)
- Breaks / Holidays September 1-3 (Sa - M)  
November 19-25 (M - Su)
- Last Day to Withdraw October 3 (W)
- Last Day of Classes December 3 (M)
- Final Exams December 4-10 (Tu - M)
- Final Grades Due December 13 (Th), 5:00pm
- Graduation December 11 (Tu) - 12(W)

Schedule of Activities\*:

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Week	Topic	Assessments
Week 1	Module 1 - Introduction and syllabus discussion.	
Weeks 2 & 3	Module 2 - Type Systems, Program Implementation, and Problem Solving	

## Kennesaw State University – College of Computing and Software Engineering

Weeks 4 & 5	Module 3 - Selection Structures.	Test 1
Weeks 6 & 7	Module 4 - Repetition structures.	
Weeks 8 & 9	Module 5 - Methods and parameters passing	Test 2
Weeks 10 & 11	Module 6 - Object-Oriented Programming - Class design and implementation	
Weeks 12 & 13	Module 7 - 1D and 2D arrays.	Test 3
Weeks 14 & 15	Module 8 - Basic algorithms – searching and sorting.	
Week 16	Review and course wrap-up	
Final Exam		Test 4 - Date TBA

\*Subject to change.

### Assessments:

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This course will include the following graded components:

Quizzes	20%
Test 1	20%
Test 2	20%
Test 3	20%
Final	20%

### Grading:

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The instructor will make every effort to have assignments graded within one week. Assignments will be graded for **correctness and completeness**, as per the grading rubrics. No “extra credit” work will be given to improve one’s grade. Copies of your class work and test will be kept for record.

A	89.5% - 100%
B	79.5% - 89.5%
C	69.5% - 79.5%
D	59.5% - 69.5%
F	59.4% or below

### First Year Experience:

Kennesaw State University is committed to your success. To ensure that you take full advantage of your educational opportunities, the College of Computing and Software Engineering is implementing First Year Experience (FYE) Program and this course is part of this program. In some cases, you will be contacted by FYE team member as a follow-up on the instructor’s referral and to offer you the guidance and support you need. There are many ways for you to reach your academic and personal goals. We’ll

show you how.

As part of process improvement, student data will be analyzed and reported in aggregate, de-identified form, as part of IRB-approved Study 19-157: How Student Success in the First-Year courses affects RPG rates.

## Late Work and Make-up Policy:

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**Late work will not be accepted.**

If a student must miss a test or final exam due to a documented, legitimate reason (illness with documentation, family death, etc.), then a make-up test/exam will be administered. To coordinate this, contact the instructor as soon as possible. It is the responsibility of the student to coordinate this in a timely manner.

## Attendance

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On campus sections: The Instructor expects your attendance at each and every class/lab and discussion. Grade performance is a demonstrated function of attendance, preparation and participation. You can get behind very easily by skipping classes, resulting in a poor understanding of the material, which will show up as a poor grade for the class. Any class sessions missed by the student are the student's responsibility to make up, not the instructor's. Late arrival that causes disruption, early departure that causes disruption, excessive conversation among students (a disruption in its own right), inappropriate use of electronic devices that cause disruptions and other actions that disrupt the classroom are unacceptable.

Online sections: The instructor expects your active participation and weekly engagement in course activities. Students are required to actively participate in class discussions and complete all course assessments by the due date. Students are expected to check the course at least three days a week to actively participate in the weekly discussions. If you find that you cannot meet above requirements, contact your instructor as soon as possible.

## Proctored exam

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On campus sections students are used to proctored exams, and should expect to attend all classes, as well as proctored exams. Online students should ALSO note that proctored exams are required for the online version of this course, as well. Online students must take proctored exams at scheduled time as assigned by instructor at <http://proctorU.com> or Respondus LockDown Browser with Respondus Monitor. Proctored exam might require a fee.

## Communications Policy:

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The instructor only guarantees replies to emails received from your Kennesaw email **account** ([netid@students.kennesaw.edu](mailto:netid@students.kennesaw.edu)) or **D2L email account**. Emails sent from other email domains may not reach the instructor's mailbox. In order to ensure receipt/responses to your email be sure that you communicate with the instructor via your Kennesaw email account or via D2L, *and include the*

*course number in the subject.*

### Academic Integrity Statement:

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Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an "informal" resolution by a faculty member - resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.

Students are encouraged to study together and to work together on class assignments and lab exercises; however, the provisions of the STUDENT CONDUCT REGULATIONS, II. Academic Honesty, KSU Undergraduate Catalog will be strictly enforced in this class.

For the complete SCAI policy visit <https://web.kennesaw.edu/scai/content/ksu-student-code-conduct>, from which this information was copied and/or adapted.

### TurnItIn & D2L:

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All written assignments will be evaluated by D2L's TurnItIn (TII) plagiarism detection module. The review is automatic once a student submits their assignment to D2L's dropbox.

### Diversity and Disability Statement:

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All courses offered by the Information Systems department will adhere to the KSU policy that prohibits discrimination on the basis of race, religion, color, sex, age, disability, national origin, or sexual orientation.

Learn more at <http://studentsuccess.kennesaw.edu/sds/guidelines/institutional-policies.php> TTY: (470) 578-6480 Phone: (770) 423-6443

### Online Behavior:

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Students are reminded to conduct themselves in accordance with the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Every KSU student is responsible for upholding the provision. For more details, visit

<http://catalog.kennesaw.edu/content.php?catoid=14&navoid=875> or <https://web.kennesaw.edu/scai/content/ksu-student-code-conduct>.

Students who are in violation of this policy may be dropped from the course and may be subject to disciplinary action by the University.

Communication, especially in an online environment, takes special consideration.

- Be sensitive and reflective to what others are saying.

## Kennesaw State University – College of Computing and Software Engineering

- Don't use all caps. It is the equivalent of screaming.
- Don't flame - These are outbursts of extreme emotion or opinion.
- Think before you hit the post (enter/reply) button. You can't take it back!
- Don't use offensive language.
- Use clear subject lines.
- Don't use abbreviations or acronyms unless the entire class knows them.
- Be forgiving. Anyone can make a mistake.
- Keep the dialog collegial and professional.

If you have problems please call the Service Desk at 470 578 6999 or e-mail [service@kennesaw.edu](mailto:service@kennesaw.edu)

### Strategies for Success:

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Strategies for success in and sources for assistance available to all students may include:

#### **The Writing Center:**

<http://writingcenter.kennesaw.edu/>,

#### **Academic Support Services:**

[http://www.kennesaw.edu/stu\\_dev/msrs/academic.html](http://www.kennesaw.edu/stu_dev/msrs/academic.html)

#### **Department of Career Planning & Development:**

<http://careers.kennesaw.edu/>

#### **Counseling and Psychological Services:**

<http://studentsuccess.kennesaw.edu/cps/>

#### **Student Disability Services:**

[http://www.kennesaw.edu/stu\\_dev/dsss/welcome.html](http://www.kennesaw.edu/stu_dev/dsss/welcome.html)

#### **Student Health Services:**

<http://studenthealth.kennesawstateauxiliary.com/>

#### **ESL Study and Tutorial Center:**

[http://uc.kennesaw.edu/academicinitiatives/docs/Guide\\_to\\_the\\_ESL\\_Center.pdf](http://uc.kennesaw.edu/academicinitiatives/docs/Guide_to_the_ESL_Center.pdf)

#### **Health Promotion and Wellness:**

<http://studentsuccess.kennesaw.edu/wellness/resources/general-wellness.php>

Refer to the course Assignments & Instructor Policies and the Schedule documents for the rest of the Syllabus content. Students are expected to read and comply with all three components of the Syllabus.

### Other Instructor Policies:

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<To be provided by Instructor as desired>

**COURSE SYLLABUS**

**CSE 1321L, Section <xx>**

Programming and Problem Solving I - Lab

Fall 2018

**<based on section>**

**Effective August 2018**

**Lab to accompany CSE 1321**

**Instructor:**

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**Name:** <to be provided>

**E-Mail:** <to be provided>

Note: Official communications should be conducted between KSU email accounts in accordance with KSU Policy.

**Webpage:** <to be provided>

**Phone:** <to be provided>

**Office:** <to be provided>

**Office Hours:** <to be provided>

**Advising:** All advising questions should be directed to [ccseadvising@kennesaw.edu](mailto:ccseadvising@kennesaw.edu)

**Course website:** <http://ccse.kennesaw.edu/advising/programmingclasses.php> (includes information about open lab, available tutoring and advising)

**Preferred Method of Contact and Communication:**

<to be provided>.

**Communication Response Time:**

24 hours M-F, weekend and holiday emails are accepted on next business day.

**Course Description:**

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Lab activities with programming to accompany CSE 1321.

**Prerequisites:**

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Co-Requisites: CSE 1321

Pre-Requisites: None.

**Learning Outcomes:**

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## Kennesaw State University – College of Computing and Software Engineering

Students who complete this course successfully will be able to:

- Demonstrate the knowledge of the basic syntax of a specific programming language.
- Follow specified style guidelines in writing programs, and understand how the guidelines enhance readability and promote correctness in programs.
- Compile, debug, run, and test programs.
- Use primitive data types, data structures, and arithmetic expressions in programs.
- Apply selection and repetition structures in program solutions.
- Define and use methods and classes in program solutions.
- Create programming solutions which include 1D and 2D array handling, searching, and sorting.

### Learning Resources:

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**Textbook:** Not required.

**Downloads from D2L:** Other electronic resources as made available by the instructor

### Important Dates:

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- First Day of Classes August 13 (M)
- Breaks / Holidays September 1-3 (Sa - M)  
November 19-25 (M - Su)
- Last Day to Withdraw October 3 (W)
- Last Day of Classes December 3 (M)
- Final Exams December 4-10 (Tu - M)
- Final Grades Due December 13 (Th), 5:00pm
- Graduation December 11 (Tu) - 12(W)

### Schedule of Activities\*:

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	Dates	Topic	Assessment Deadlines
Week 1	13 Aug - 17 Aug	Introduction and syllabus discussion	
Week 2	20 Aug - 24 Aug	Introduction to IDE and compiler setup.	
Week 3	27 Aug - 31 Aug	Implement, compile, debug, run, and test sample programs.	
Week 4	04 Sep - 07 Sep	Develop programs using type systems to solve simple problems.	
Week 5	10 Sep - 14 Sep	Develop programs using expressions to solve simple problems.	
Week 6	17 Sep - 21 Sep	Develop programs using selection structures to solve problems.	
Week 7	24 Sep - 28 Sep	Develop programs using selection structures to solve problems.	
Week 8	01 Oct - 05 Oct	Develop programs using repetition structures to solve problems.	

## Kennesaw State University – College of Computing and Software Engineering

Week 9	08 Oct - 12 Oct	Develop programs using repetition structures to solve problems.	
Week 10	15 Oct - 19 Oct	Develop programs using methods and parameter passing to solve problems.	
Week 11	22 Oct - 26 Oct	Develop programs using classes and objects to solve problems.	
Week 12	29 Oct - 02 Nov	Develop programs using classes and objects to solve problems.	
Week 13	05 Nov - 09 Nov	Develop programs using single-dimensional arrays to solve problems.	
Week 14	12 Nov - 16 Nov	Develop programs using multi-dimensional arrays to solve problems.	
Week 15	26 Nov - 30 Nov	Basic algorithms – searching and sorting.	
Week 16	03 Dec 2018	Review and course wrap-up	
Final	04 Dec – 10 Dec		Test Date TBA

\*Subject to change.

### Assessments:

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This course will include the following graded components:

Homework Assignments	40%
Lab Assignments	10%
Proctored, closed book Final	50%

### Grading:

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The instructor will make every effort to have assignments graded within one week. Assignments will be graded for **correctness and completeness**, as per the grading rubrics. No “extra credit” work will be given to improve one’s grade. Copies of your class work and test will be kept for record.

A	89.5% - 100%
B	79.5% - 89.5%
C	69.5% - 79.5%
D	59.5% - 69.5%
F	59.4% or below

### First Year Experience:

Kennesaw State University is committed to your success. To ensure that you take full advantage of your educational opportunities, the College of Computing and Software Engineering is implementing First Year Experience (FYE) Program and this course is part of this program. In some cases, you will be contacted by FYE team member as a follow-up on the instructor’s referral and to offer you the guidance and support you need. There are many ways for you to reach your academic and personal goals. We’ll show you how.

### Late Work and Make-up Policy:

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## Kennesaw State University – College of Computing and Software Engineering

### Late work will not be accepted.

If a student must miss a test or final exam due to a documented, legitimate reason (illness with documentation, family death, etc.), then a make-up test/exam will be administered. To coordinate this, contact the instructor as soon as possible. It is the responsibility of the student to coordinate this in a timely manner.

### Attendance

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On campus sections: The Instructor expects your attendance at each and every class/lab and discussion. Grade performance is a demonstrated function of attendance, preparation and participation. You can get behind very easily by skipping classes, resulting in a poor understanding of the material, which will show up as a poor grade for the class. Any class sessions missed by the student are the student's responsibility to make up, not the instructor's. Late arrival that causes disruption, early departure that causes disruption, excessive conversation among students (a disruption in its own right), inappropriate use of electronic devices that cause disruptions and other actions that disrupt the classroom are unacceptable.

Online sections: The instructor expects your active participation and weekly engagement in course activities. Students are required to actively participate in class discussions and complete all course assessments by the due date. Students are expected to check the course at least three days a week to actively participate in the weekly discussions. If you find that you cannot meet above requirements, contact your instructor as soon as possible.

### Proctored exam

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On campus sections students are used to proctored exams, and should expect to attend all classes, as well as proctored exams. Online students should ALSO note that proctored exams are required for the online version of this course, as well. Online students must take proctored exams at scheduled time as assigned by instructor at <http://proctorU.com> or Respondus LockDown Browser with Respondus Monitor. Proctored exam might require a fee.

### Communications Policy:

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malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an "informal" resolution by a faculty member - resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.

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## Kennesaw State University – College of Computing and Software Engineering

- Keep the dialog collegial and professional.

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#### **Department of Career Planning & Development:**

<http://careers.kennesaw.edu/>

#### **Counseling and Psychological Services:**

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#### **Student Disability Services:**

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#### **ESL Study and Tutorial Center:**

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#### **Health Promotion and Wellness:**

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### Other Instructor Policies:

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<To be provided by Instructor as desired>

# Final Report

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# Affordable Learning Georgia Textbook Transformation Grants

## Final Report

To submit your Final Report, go to the Final Report submission page on the ALG website:

[http://affordablelearninggeorgia.org/site/final\\_report\\_submission](http://affordablelearninggeorgia.org/site/final_report_submission)

Final report submission requires four files:

- This completed narrative document
- Syllabus or syllabi
  - (if multiple files, compress into one .zip folder)
- Qualitative/Quantitative Measures data files
  - (if multiple files, compress into one .zip folder)
- Photo of your team or a class of your students w/ at least one team member, minimum resolution 800x600px
  - (nearly all smartphones take photos larger than this size by default)

Follow the instructions on the webpage for uploading your documents. Based on receipt of this report, ALG will process the final payment for your grant. ALG will follow up in the future with post-project grantee surveys and may also request your participation in a publication, presentation, or other event.

## General Information

**Date:** December 21, 2018

**Grant Round:** Round 11

**Grant Number:** Proposal 360

**Institution Name(s):** Kennesaw State University

**Project Lead:** Charity Bryan

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

Charity Bryan, PhD

Clinical Associate Professor and Director of Technology Enhanced Learning

Health Promotion and Physical Education and College of Continuing and Professional Education

[cbryan4@kennesaw.edu](mailto:cbryan4@kennesaw.edu)

Jennifer W. Purcell, EdD

Assistant Professor

Department of Leadership and Integrative Studies

[jpurcell@kennesaw.edu](mailto:jpurcell@kennesaw.edu)

Sandra Jones, M.S.  
Senior Lecturer  
Software Engineering and Game Development  
[sjone383@kennesaw.edu](mailto:sjone383@kennesaw.edu)

**Course Name(s) and Course Numbers:**

Course #1:

Behavioral and Psychological Aspects of Physical Education and Coaching  
HPE 3100

Course #2:

Service as Leadership  
LDRS 3400

Course #3:

Programming and Problem Solving 1  
CSE 1321  
Programming and Problem Solving 1 Lab  
CSE 1321L

**Semester Project Began:**

Fall 2018 was the first time the three courses were offered with OERs.

**Final Semester of Implementation:**

Fall 2018

**Total Number of Students Affected During Project:**

Fall 2018:  
HPE 3100 – 76 students  
LDRS 3400 – 67 students  
CSE 1321 - 506 students  
CSE 1321L - 542 students



## 1. Narrative

- A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:
- Summary of your transformation experience, including challenges and accomplishments
    - HPE 3100: While the transformation for HPE 3100 was labor intensive on the front end, once my class started, it really was very worthwhile. I spent most of the summer collecting the OERs and removing parts of my class that were affiliated with the textbook (assignments, etc.) and sending my course back through QM (Quality Matters) review here at KSU. Once fall classes started, my students were able to engage immediately and that was a plus. One challenge was trying to “recreate” certain resources I really wanted my students to have (i.e. sport psych self-assessments, quizzes, etc.) that I had to find online and try to come as close as possible to the resources I had been using through the textbook. As far as an accomplishment, I was blown away by the positive comments in the student evaluation. I did not dream their comments would be as positive as they were.
    - LDRS 3400: Several courses in our Leadership Studies curriculum include supplemental OER content, including videos and additional readings. However, we have consistently relied on a core textbook adoption for each course. This project supported me in re-imagining the design of our curriculum delivery without a core textbook. I anticipated finding additional OER content similar to what my colleagues and I have adopted in other courses. What I didn’t anticipate was finding the entire textbook we had adopted for the course being available as a free e-text through our University library. Sadly, it had never occurred to me to look for such an option, and I didn’t realize entire texts, including current editions would be available in this format. I worked with our library team to ensure we had a sufficient subscription, after learning some e-texts have limits on the number of users who can access the material simultaneously. Students were able to read the text via their browser from a variety of devices and could also download chapters as PDFs. Overwhelmingly, students appreciated the free text option. Most importantly, the few students who prefer a hard copy text still had the option to purchase the textbook.
    - CSE 1321 and CSE 1321L: This project was a complete redesign and re-development of the way that programming courses were taught in the past at KSU. Formerly, the courses were taught as a single 4-hour course, that included a 1 hour for lab. The redesign was to serve multiple purposes: to have a consistent course taught across all departments (CS, SWE, and SWE GD), to create a dedicated team of professors and teaching assistants to ensure consistent delivery, and to improve student success by focusing on

problem-solving and algorithmic design in lecture and writing code in lab. In the process, we split apart the lecture/lab to allow students to take or re-take only one component, as needed. When I started researching OER's, I wanted to find not only a textbook to support reading/writing learners, but also resources to help visual, auditory, and kinesthetic learners. I searched for visualizations of code flow, online lectures, and code samples to support each, respectively. A variety of OER's is offered in the lecture and all three labs. I believe that attempting to satisfy ALL learners' needs resulted in an improvement in overall success; survey feedback appears to support this.

- Transformative impacts on your instruction
  - HPE 3100: My instruction was transformed in that the critical information I want my students to have (and the course outcomes) were all still able to be achieved without a textbook. Granted, having a textbook makes it easier on me as an instructor (for example, when grading a discussion board, I can give feedback and refer students to page 34 to learn more about a topic on which they may not have gone into enough depth), however, I do not think the fact that a textbook makes my life easier outweighs the benefit to students of essentially receiving the same material, but at no cost. My instruction was much the same, because it was important to me that the OER course be "equivalent" (or even better than) my former textbook based course. The true transformation was probably in my own journey as a faculty member realizing that free and high quality resources really are out there if you know where to look.
  - LDRS 3400: The OER content, including the e-text, allowed me to leverage existing instructional materials used in our curriculum while adding a variety of additional required and optional supplemental materials. These additional OER materials strengthen my lessons by diversifying the voices and perspectives presented in the course. Leadership Studies has a complexity of multi- and interdisciplinary perspectives that enriches student learning; however, this depth of learning is weakened when single text are adopted. We know from research that learners benefit from seeing themselves in their professors; similarly, I find students are receptive to reading materials that include diverse perspectives.

- CSE 1321 and CSE 1321

My role in the redesign of the programming sequence at KSU was developer and support for the new faculty team assigned to the courses; I did not actually teach the courses in the fall, but maintained close contact with all of the faculty during the semester. As I mentioned earlier, the college hired a new faculty team to provide a fresh perspective for their new approach. In other words, the addition of the OER's is not the only radical change in the delivery of material.

I have taught programming courses for many years, and my approach for finding OER's was very similar to what I used to try to provide my students. I think that in a way, my not teaching the courses in the fall gave me a greater sense of responsibility to provide the students with what I would give them if I were teaching: quality lectures, visualizations, coding activities and reading materials via a textbook (this time for free). I feel as though I truly delivered in this area and the survey results support this.

- Transformative impacts on your students and their performance

- HPE 3100: Student performance was essentially the same as in previous courses when a textbook was used. However, what was different, were all of the positive comments made in the evaluation about not having to purchase a textbook.
- LDRS 3400: Overall performance in the course was fairly consistent. I did notice more frequent use of citations, which are required in weekly discussion, the term paper, and essays embedded in the final exam. This observation is relevant because I often notice students who appear to not have access to the textbook due to their lack of citations from the text and use of web-based references. The OER content provided access to all students regardless of their ability to purchase a text.
- CSE 1321: Introductory programming is a historically difficult course, with high failure rates; this is a statistic that is pervasive across institutions. The addition of OER's may be credited with an improvement of student performance. The number of final A/B grades increased, and a reduction of lower grades was realized. Student comments suggest that they did appreciate the variety of resources offered to them in these courses.

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

- HPE 3100: Next time, I would probably start earlier and transition my course over an academic year, instead of a ½ spring semester and summer. I felt a little rushed, but in the end, it all worked out. In addition, I feel like I have a much better grasp on where to start looking for resources and how to efficiently determine if a resource is going to be a good fit or not.
- LDRS 3400: During the semester, it was brought to my attention that multiple OER resources were not working properly with screen reading software and were therefore not accessible. I worked with our fantastic team for Academic Web Accessibility to find solutions and correct the course for future semesters. I was very fortunate in having access to these institutional resources, and imagine it would have been difficult to find solutions without their help. Had I worked for a smaller, access institution, for example, it would be helpful to partner with a larger institution or a central resource within the USG system office to identify solutions.
- CSE 1321: In hindsight, because I was removed from the classroom, I wish that I would have arranged to visit each section of lab and lecture to inform the students of the OER's. In addition to creating "self-explanatory" modules that contained the materials, I also talked with the professors and impressed upon them the availability of them. I know that the students found and used them, but I wonder how many went in search of on Google when resources had already been vetted for them.

## 2. Quotes

- Provide three quotes from students evaluating their experience with the no-cost learning materials.
  - HPE 3100:
    - "Free resources alleviated the stress of having to buy textbooks and other materials for a class. In addition, i always had what materials i needed right there in order to complete the weekly assignment, rather than potentially losing track of my textbook/any other documents i needed."
    - "I loved that I didn't have to spend any money on a textbook I would only use once. The layout of the class was really simple and easy to follow. I feel that a textbook would have been unnecessary when all of the information was in PowerPoint (and) videos."
    - "I really enjoyed using the information in D2I because it is free. Also, I had the convenience of reviewing the information on my cell phone. I did not have carry a book around as well. These are just a few reason why I enjoyed not purchasing a book."

- LDRS 3400:
  - “I personally liked this because i did not have to come out of pocket and pay for a textbook. More importantly all the items we needed for the classes were available through google or through the KSU library. It was actually my first class not being required to have textbooks. It was a overall great experience and i now prefer that style over being required to have textbooks!”
  - “The online textbook was easy to navigate. Even easier than a real textbook, because you could search keywords that it would automatically navigate for you. It also saved me a lot of money. Tuition isn't cheap and in my opinion it would make sense that the school already provides every resource you need for a class.”
  - “Having the textbook readily available to me was extremely helpful. Admittedly, buying textbooks for my courses has always put a financial strain on me and my Mom, so I really appreciated the fact that every resource was free. I think it’s very considerate of students to have all free resources too!”
  - “I really liked that there was a variety of sources offered. It made the material much more interesting to learn from a video and discussion, and not always just reading from the text.”
- CSE 1321 and CSE 1321L
  - “Having to purchase a textbook is often a sticking point, and some more financially challenged students like myself end up not purchasing it even if it is required ostensibly, which makes the course harder. Not having one at all took that decision away, in a good fashion.”
  - “If it hadn't been free I probably wouldn't have purchased the book. I would have tried to do everything based off of in class lectures. Having OER is much cheaper and more useful.”
  - “Having free resources makes the learning process a lot easier. I never had to worry about finances, but rather just knowing where to access the information. Having the amount of supplemental material available was also really helpful, I never worried about not having enough to help.”

### 3. Quantitative and Qualitative Measures

#### 3a. Uniform Measurements Questions

The following are uniform questions asked to all grant teams. Please answer these to the best of your knowledge.

##### Student Opinion of Materials

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

##### **HPE 3100:**

Total number of students affected in this project: 76

- Positive: 97% % of 65 number of respondents
- Neutral: 0% % of 65 number of respondents
- Negative: 3% % of 65 number of respondents

##### **LDRS 3400:**

Total number of students affected in this project: 67 in two courses; only one course surveyed (N - 38)

- Positive: 97 % of 38 number of respondents
- Neutral: 3 % of 38 number of respondents
- Negative: 0 % of 38 number of respondents

##### **CSE 1321 and CSE 1321L:**

Total number of students affected in this project: 542\*

- Positive: 64% % of 87 number of respondents
- Neutral: 0% % of 87 number of respondents
- Negative: 36% % of 87 number of respondents

\*The typical student will take a section of the lecture and a section of the lab at the same time. However, a student may take the lecture without the lab (not typical) or the lab without the lecture. The latter scenario is more likely, as transfer students often come to the school with only a 3 hour credit for programming and they need the last lab hour required by KSU. The number above reflects the total number of unique students across both courses.

## **Student Learning Outcomes and Grades**

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

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

### **HPE 3100 - Choose One:**

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

### **LDRS 3400 - Choose One:**

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

### **CSE 1321 - Choose One:**

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

## Student Drop/Fail/Withdraw (DFW) Rates

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

### **HPE 3100 - Drop/Fail/Withdraw Rate:**

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

21 % of students, out of a total 76 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

- Positive: This is a lower percentage of students with D/F/W than previous semester(s)
- Neutral: This is the same percentage of students with D/F/W than previous semester(s)
- XX Negative: This is a higher percentage of students with D/F/W than previous semester(s). (Note: in spring 2018 prior to OER implementation, 15% of HPE 3100 students had a grade of D/F/W)

### **LDRS 3400 - Drop/Fail/Withdraw Rate:**

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

4 % of students, out of a total 76 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

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



### **CSE 1321/1321L - Drop/Fail/Withdraw Rate:**

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

CSE 1321

33.9 % of students, out of a total 506 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

CSE 1321L

34.5 % of students, out of a total 542 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

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

### **3b. Measures Narrative**

*In this section, summarize the supporting impact data that you are submitting, including all quantitative and qualitative measures of impact on student success and experience. Include all measures as described in your proposal, along with any measures developed after the proposal submission.*

*[When submitting your final report, as noted above, you will also need to provide the separate file (or .zip with multiple files) of supporting data on the impact of your Textbook Transformation, such as surveys, analyzed data collected, etc.]*

- *Include measures such as:*
  - *Drop, fail, withdraw (DFW) delta rates*
  - *Course retention and completion rates*
  - *Average GPA*
  - *Pre-and post-transformation DFW comparison*
  - *Student success in learning objectives*
  - *Surveys, interviews, and other qualitative measures*
- *Indicate any co-factors that might have influenced the outcomes.*

**HPE 3100 Supporting Data (see attached zip file):**

- HPE 3100 Course syllabus (including course outcomes)
- HPE 3100 Qualtrics survey to all students (Fall 2018)
- HPE 3100 Grade Data (Fall 2018 vs. Spring 2018)
- HPE 3100 Student Success in Learning Objectives

**LDRS 3400 Supporting Data (see attached zip file):**

- LDRS 3400 Course syllabus (including course outcomes)
- LDRS 3400 Qualtrics survey to all students (Fall 2018)
- LDRS 3400 Grade Data (Fall 2018 vs. Spring 2018)

**CSE 1321 Supporting Data (see attached zip file):**

- CSE 1321 and 1321L Course syllabus (including course outcomes)
- CSE 1321/1321L Qualtrics survey to all students (Fall 2018)
- CSE 1321 and CSSE 1321L Grade Data (Fall 2018 vs. Spring 2018\*)

\*In Spring 2018, the course was the lecture/lab combined in a single 4 hour course.

## 4. Sustainability Plan

- *Describe how your project team or department will offer the materials in the course(s) in the future, including the maintenance and updating of course materials.*

### **HPE 3100 Sustainability Plan:**

- HPE 3100 is a required course for both HPE majors, as well as Sport Management majors and will be offered at Kennesaw State University indefinitely. In addition, Psychology majors are allowed to take the course as an elective. Funding for Intellus Learning will not be renewed through KSU. Intellus Learning will, therefore, provide a print out where I can keep my entire course structure as well as the links to the content I have curated for HPE 3100. I will lose access to the LMS integration and analytics provided by Intellus Learning, but I will not lose any of my work or the resources obtained. I will still be able to reintegrate links within D2L even though the institution will not renew the license with Intellus Learning. I will continue to offer HPE 3100 as an OER course and will do so for the indefinite future (I have no plans to return to using a textbook for HPE 3100).

### **LDRS 3400 Sustainability Plan:**

- Three sections of LDRS 3400 were offered during Fall 2018; however, only two sections relied solely on the OER content. This decision was made once the accessibility concerns were identified as it provided time to correct the issue and minimize any potential negative impact on students. Moving forward, the OER content will be adopted across all sections for the LDRS 3400 master course. My colleagues and I are also exploring OER content options for our other LDRS courses. Additionally, I have met with colleagues from our Distance Learning Center to develop the course, including the OER content, outside of D2L in order for faculty beyond KSU to adopt the course.

### **CSE 1321 Sustainability Plan:**

- CSE 1321 and 1321L are required courses for all CCSE majors; in fact, students must be successful with a B or higher in both courses before they are allowed to declare a CCSE major. Due to all of the technical problems I experienced, I did not curate resources through Intellus, but by searching for Creative Commons Licensed material on the Web. Due to the high number of high-quality resources that are available online, I am going to recommend to the faculty team that the list of resources continues to be grown and that a brief abstract is provided (as I did in the courses) to provide the highest level of usefulness for all students. Based on the success of the OER's, I do not believe CCSE will revert to using paid materials again.

## 5. Future Plans

- *Describe any impacts or influences this project has had on your thinking about or selection of learning materials in this and other courses that you will teach in the future.*
- *Describe any planned or actual papers, presentations, publications, or other professional activities that you expect to produce that reflect your work on this project.*

### **HPE 3100 Future Plans:**

- I am now a firm believer that courses can use OERs as effectively as they do a textbook. I am sure that this approach may not work for all courses, but for HPE 3100, it has been a wonderful shift not only in my own thinking, but for the students who no longer have to purchase a textbook. In fact, moving forward, I am completely open to exploring the use of OERs for future courses that I may teach in HPE. I equate the evolution in my own thinking about OERs to a very similar evolution over a decade ago toward online classes. I was a “peripheral supporter” of online classes until 2008 when I had to convert my own course to online in order to meet the needs of a new online program in my department. The OER shift was much the same for me; I was fine with other faculty who wanted to use OERs, I just did not think it would work for me or my classes. However, having been through this process, I now know that it works and that my students can be just as informed and successful with OERs as they are with a textbook.
- I will consider submitting a paper, presentation, or publication related to the use of OERs in HPE 3100. In all honesty, I needed to get through this semester to get a full picture of how the course would work solely relying on OERs before I could consider submitting some kind of professional work related to this topic. Now that I have had a good experience with OERs, and learned a lot in the process, I do believe I will likely submit some kind of professional paper or presentation on this topic in 2019 or 2020.

### **LDRS 3400 Future Plans:**

- Based on my experience with LDRS 3400, I am interested in eliminating the need to purchase texts in all of my courses and throughout our undergraduate certificate program. I am teaching a new graduate course in the spring and will use only OER materials and would like to help transition all of our graduate courses in Leadership and Ethics to OER content. Additionally, I am exploring publication options for a reflective practice essay on transitioning to OER content. Two journals in my field often publish these types of essays, and would therefore be an appropriate means of disseminating my lessons learned and a called to action among fellow leadership educators.

### **CSE 1321 Future Plans:**

- I have always encouraged students to look beyond the classroom and lecture for ways in which to learn. I have had students share high-quality resources with me that I have subsequently shared with other students. I think the big change for me is realizing that this offering of OER's to students can be a formal process that is ultimately transforming. I think that the students appreciate the fact that someone has basically communicated to them, "I want you to succeed and I have searched for things to help support that success."
- I have not seriously thought about a paper or presentation, but I wouldn't rule it out, either.

### **6. Description of Photograph**

- *On the Final Report Submission page, you will be submitting a photo. In this document, list the names of the people shown in this separately uploaded photograph, along with their roles.*

Our classes were online therefore pics of the students were not possible.

Our grant team consisted of:



**Dr. Charity Bryan**



**Dr. Jennifer Purcell**



**Sandra Jones**