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

Kasey Karen, Assistant Professor, Biological & Environmental Sciences, Georgia College & State University, kasey.karen@gcsu.edu

Jennifer Townes, Scholarly Communication Librarian, Russell Library,
Sponsor, (Name, Title, Department, Institution):
Kelli Brown, Provost, Academic Affairs, Georgia College & State University

Course Names, Course Numbers and Semesters Offered:
Bioethics, BIOL 4310/5310, Fall 2017, Summer 2018

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

Bioethics: An Anthology Helga Kuhse (Editor), Udo Schuklenk (Editor), Peter Singer (Editor) Required $74.95

Average Number of Students per Course Section:
20-25

Number of Course Sections Affected by Implementation in Academic Year:
1

Average Number of Course Sections Per Semester:
1 when offered

Total Number of StudentsAffected by Implementation in Academic Year:
20-25

Requested Amount of Funding:
10800

Original per Student Cost:
139.67

Post-Proposal Projected Student Cost:
64.72

Projected Per Student Savings:
74.95

Projected Total Annual Student Savings:
1873.75

Project Goals:
Our project goals are to 1) reduce the cost to students in both online and face-to-face sections of the Bioethics (BIOL 4310/5310) course by replacing the published anthology with a no-cost, open access anthology, 2) identify articles that will provide a balanced account of varying perspectives on different bioethical issues, 3) design the anthology to focus on specific issues
that are covered in class with current gaps filled and no extraneous material, and 4) design and share materials on a LibGuide (Library-Specific Springshare Product) that will serve as an easily accessible resource guide for students, as well as faculty at other institutions.

Statement of Transformation:

*Description of transformation:* Each year, the Department of Biological & Environmental Sciences offers one section of Bioethics with about 15-20 seats for undergraduates and 5 seats for graduate students. Every odd year, it is offered in the fall semester as a face-to-face course, while it is offered as a fully online summer course in each even year. This course satisfies the 18 upper-level credits in the major requirement for Biology majors and the 9-10 upper-level credits for the Biology minor. The class has been taught 3 times and is currently being taught a 4th time this semester and there has always been the same textbook requirement: Scientific Integrity: Text and Cases in Responsible Conduct of Research and Bioethics: An Anthology. I searched through multiple bioethics textbooks these were the best combination of texts I could find for my class. I am very happy with Scientific Integrity, however, there are a few drawbacks to using the anthology. One issue is that there does not appear to be a balanced account of some issues. For instance, there is one article regarding organ allocation and alcoholics and it is clearly a negative view. I have to supplement the text with other articles to give a more balanced view. I stress in the class how important it is to at least explore both sides of an issue before coming to a conclusion so using a text that does not follow that rule itself is problematic. The text is also lacking in articles on historical bioethical issues, such as the Nuremberg Trials and the Tuskegee Syphilis Study. Additionally, the articles on embryonic stem cells are not sufficient and need to be supplemented. Additionally, there are a lot of other articles that are not used in the class so it is a little wasteful. Finally, the need for two textbooks increases the cost to the students so requiring the purchase of only one of the texts will benefit the students financially. Specifically, with the no-cost anthology that we develop, the students will save $74.95 each.

*Stakeholders affected by the transformation and a description of this impact:* Our students will be the direct beneficiaries of this textbook transformation. Our students will save money and they will have course materials that are well aligned with topics covered in class and with the course objective of fully exploring a topic from multiple perspectives. Additionally, this transformation will benefit the students and professor in making it easier to find and assign certain articles. Sometimes there is confusion with the class in terms of what readings are due when since there are essentially 3 locations for the readings. Two textbooks and additional resources in the Content section of D2L. I try to make it as clear as possible with announcements and calendar items on D2L, however, there are still moments in class where students arrive not knowing that an article should have been read or emails about finding the location of an article. It will also make it easier in the sense that the anthology can be organized in the order that the topics are addressed in the class. Currently, we have to jump around in the published anthology.
Impact on the course and program. While we do not expect this transformation to significantly impact student success in the course, we do expect that it would make the course easier to follow. The lower cost of textbooks could also impact the registration and withdrawal rates. Science majors typically spend hundreds of dollars per semester on textbooks, so reducing this cost in any way can help with retention.

Transformation Action Plan:

Survey and assess current course offering to get control data. The current course offering is using the published textbook along with additional materials supplied by me. We will administer a survey, collect scores on assignments, and administer an assessment at the end of this course. Please see the section on Quantitative and Qualitative measures below for more information.

Identify and review appropriate materials that cover the topics of the course from multiple perspectives. We will review the current set of articles used in Bioethics course and determine if they are open access or if we have access to them in Galileo. For any articles that are copyrighted and require licensing fees, a search for comparable material that is available to us at no cost will be undertaken. Many of the appropriate articles can be found as open access or published in the Journal of Bioethics. We do have access to articles published after 1998 from this journal. We will also search for articles that can supplement the anthology in topics not covered in the text or not balanced in the text.

Develop new materials. This will include writing brief introductions to each unit to give background and context for the articles chosen for that section. For embryonic stem cells, this might include more scientific background on embryos, how embryonic stem cells are made, and what types of therapeutic interventions scientists hope to be able to develop as well as brief descriptions of major arguments addressed in the articles and a timeline of the legality of embryonic stem cell research in the United States.

Organize materials for open access. After we compile all of the material, we will consider how to best present these materials using both D2L and LibGuides. Jennifer Townes will create the LibGuide and provide training for its use.

Teach course. In Summer 2018, the course will be taught as a fully online course. I will use the new course materials in place of the previously required textbook. Based on assessment data, we will revise course material as necessary. We will share challenges and successes through regular meetings.

Assessment of the Summer course offering. Please see the section on Quantitative and Qualitative measures below.

Dissemination of material. The course materials will be hosted in Georgia View (D2L) and open for all students enrolled in the class. In addition, all open-access course materials will be made available on the course LibGuide.
Quantitative & Qualitative Measures: Quantitative Measures. We will assess student performance in both the Fall 2017 and Summer 2018 courses using position paper assignments on various topics throughout the course as well as a new assessment that will be developed that aligns with the course learning outcomes. It will assess their ability to identify the major arguments surrounding the topics covered during class and their ability to write moral arguments. These results will be compared with each other to observe student performance in textbook-based versions of the course versus the new no-cost anthology. We do not necessarily expect more students to meet the course outcomes after we replace the textbook, but we will make sure it does not decrease student achievement. Additionally, we will compare DFW rates both before and after the textbook transformation to determine if the no-cost format increases student retention and decreases course failure rates. In order to garner baseline data about students’ use of Open Educational Resources, we will administer the questionnaire published in the 2016 Student Textbook and Course Materials Survey by the Florida Virtual Campus Office of Distance Learning & Student Services (http://bit.ly/2k4EoWn). Qualitative Measures. Students in the Fall 2017 and Summer 2018 sections (both the traditional anthology and the newly designed one) will complete a Student Assessment of their Learning Gains (www.salgsite.org) at the end of the course. Part of this survey will specifically ask students to rate how well the course resources such as the textbook and online materials, helped their learning. Students also self-describe the learning gains they made for each student learning outcome. We will compare student scores and comments both before and after the textbook transformation.

Timeline:

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeframe</th>
</tr>
</thead>
</table>

5 of 11
Survey and assess current course offering to get control data | Fall 2017
---|---
Identify and review appropriate materials for the new anthology | Fall 2017
Finalize articles for anthology and develop new material | Spring 2018
Organize materials for open access | Spring 2018
Submit interim status report to ALG. | Late Spring 2018
Teach course | Summer 2018
Assessment in Bioethics course | Summer 2018
Analyze assessment data | Summer 2018
Submit final report to ALG | Late Summer 2018

**Budget:**

Kasey Karen will receive summer pay totaling $5,000 salary and benefits. Jennifer Townes will receive a contract overload totaling $5,000 salary and benefits. This funding will serve for redesigning courses, investigating open access sources, and analyzing data. Project expenses -- including travel to the kick-off meeting, licensing and copyright fees – will total $800. The total budget request is $10,800.

**Sustainability Plan:**

The Department of Biological & Environmental Sciences is committed to offering BIOL 4310/5310 every year either as a face-to-face course in the Fall or a fully online course in the Summer. The new material would be used in each of these courses and would no longer require students to purchase the traditional anthology. The course material will be reviewed on an annual basis to review selected articles and renew any necessary licenses.

As the summer version of Bioethics uses D2L as the learning platform, it makes sense for us to continue to use this course management software. D2L allows instructors to easily rollover course content into future classes. Course materials will also be shared using a LibGuide. LibGuides are easy to create and edit, offer flexible design, and can be edited by multiple users. Files, links, widgets, video and more can be embedded in the guides, which may be useful for the brief introductions to each unit. In addition, LibGuide usage can be tracked through page views, providing feedback to guide creators. Sharing is encouraged and facilitated in the LibGuides Community, and so course materials can be easily shared with USG and other interested schools.
September 27, 2017

Dear Review Board,

On behalf of Georgia College in Milledgeville, I am pleased to offer this letter of support for our institution’s Affordable Learning Georgia Textbook Transformation grant application. Georgia College is requesting funding for the development of no-cost-to-students learning materials for Bioethics, an upper level course in the Biology major as well as a graduate-level course. Each year, Georgia College provides 6,600 undergraduate and graduate students with an exceptional learning environment that extends beyond the classroom, with hands-on involvement with faculty research, community service, residential learning communities, study abroad, and internships. Our Biological Sciences program is one of the top majors at Georgia College. As such, we seek to provide high quality, technologically advanced resources that will enable students to obtain a more affordable education.

Assistant Professor of Biology, Dr. Kasey Karen’s project will support the creation of a "no-cost-to-students" resource for Bioethics. With support from Scholarly Communication Librarian, Jennifer Townes, this electronic resource will enable students to access topical bioethical articles through the system-wide Desire2Learn (DSL) interface. In the interest of adapting the resource for national replication beyond USG, the university will cover the cost of password-protected LibGuides, a content management system used by thousands of libraries worldwide. Georgia College will also cover the cost of licensing copyrighted material, in order to ensure project sustainability. The Office of the Provost, along with the Office of Grants and Sponsored Projects, will ensure compliance with all State, Board of Regents, and institutional policies and procedures, should we receive funding.

Thank you for your favorable consideration of Georgia College's application. Please contact me should you have any questions regarding this project.

Best Regards,

Kelli Brown, Ph.D.
Provost and Vice President for Academic Affairs
# Affordable Learning Georgia Textbook Transformation Grants
## Round 1
### Spring 2018, Summer 2018, Fall 2018
#### Proposal Form and Narrative

<table>
<thead>
<tr>
<th>Institution Name(s)</th>
<th>Georgia College &amp; State University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Members</strong> (Name, Title, Department, Institutions if different, and email address for each)</td>
<td>Kasey Karen, Assistant Professor, <a href="mailto:Kasey.karen@gcsu.edu">Kasey.karen@gcsu.edu</a> Department of Biological and Environmental Sciences Jennifer Townes, Scholarly Communication Librarian, Russell Library, <a href="mailto:jennifer.townes@gcsu.edu">jennifer.townes@gcsu.edu</a></td>
</tr>
<tr>
<td><strong>Sponsor, Title, Department, Institution</strong></td>
<td>Kelli Brown, Provost, Academic Affairs, Georgia College &amp; State University</td>
</tr>
<tr>
<td><strong>Course Names, Course Numbers and Semesters Offered</strong></td>
<td>BIOL 4310/5310, Bioethics, Fall 2017, Summer 2018</td>
</tr>
<tr>
<td><strong>Average Number of Students Per Course Section</strong></td>
<td>20-25</td>
</tr>
<tr>
<td><strong>Number of Course Sections Affected by Implementation in Academic Year 2016</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Number of Students Affected by Implementation in Academic Year 2016</strong></td>
<td>20-25</td>
</tr>
<tr>
<td><strong>Award Category (pick one)</strong></td>
<td>☒ No-Cost-to-Students Learning Materials</td>
</tr>
<tr>
<td></td>
<td>☐ OpenStax Textbooks</td>
</tr>
<tr>
<td></td>
<td>☐ Course Pack Pilots</td>
</tr>
<tr>
<td></td>
<td>☐ Transformations-at-Scale</td>
</tr>
<tr>
<td><strong>List the original course materials for students (including title, whether optional or required, &amp; cost for each item)</strong></td>
<td><em>Bioethics: An Anthology</em> Helga Kuhse (Editor), Udo Schuklenk (Editor), Peter Singer (Editor) (required)</td>
</tr>
<tr>
<td><strong>[Cost]</strong></td>
<td>$74.95/student</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$1,873.75</td>
</tr>
<tr>
<td><strong>Plan for Hosting Materials</strong></td>
<td>☒ OpenStax CNX</td>
</tr>
<tr>
<td></td>
<td>☒ D2L</td>
</tr>
<tr>
<td></td>
<td>☐ LibGuides</td>
</tr>
<tr>
<td></td>
<td>☐ Other</td>
</tr>
<tr>
<td><strong>Projected Per Student Cost</strong></td>
<td>$0/student</td>
</tr>
<tr>
<td><strong>Projected Per Student Savings (%)</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

Title: Building a Better Anthology: Developing a balanced and focused anthology for a Bioethics course (BIOL 4310/5310)
1. Project Goals
Our project goals are to 1) reduce the cost to students in both online and face-to-face sections of the Bioethics (BIOL 4310/5310) course by replacing the published anthology with a no-cost, open access anthology, 2) identify articles that will provide a balanced account of varying perspectives on different bioethical issues, 3) design the anthology to focus on specific issues that are covered in class with current gaps filled and no extraneous material, and 4) design and share materials on a LibGuide (Library-Specific Springshare Product) that will serve as an easily accessible resource guide for students, as well as faculty at other institutions.

1.1 Statement of Transformation
Description of transformation: Each year, the Department of Biological & Environmental Sciences offers one section of Bioethics with about 15-20 seats for undergraduates and 5 seats for graduate students. Every odd year, it is offered in the fall semester as a face-to-face course, while it is offered as a fully online summer course in each even year. This course satisfies the 18 upper-level credits in the major requirement for Biology majors and the 9-10 upper-level credits for the Biology minor. The class has been taught 3 times and is currently being taught a 4th time this semester and there has always been the same textbook requirement: Scientific Integrity: Text and Cases in Responsible Conduct of Research and Bioethics: An Anthology. I searched through multiple bioethics textbooks these were the best combination of texts I could find for my class. I am very happy with Scientific Integrity, however, there are a few drawbacks to using the anthology. One issue is that there does not appear to be a balanced account of some issues. For instance, there is one article regarding organ allocation and alcoholics and it is clearly a negative view. I have to supplement the text with other articles to give a more balanced view. I stress in the class how important it is to at least explore both sides of an issue before coming to a conclusion so using a text that does not follow that rule itself is problematic. The text is also lacking in articles on historical bioethical issues, such as the Nuremberg Trials and the Tuskegee Syphilis Study. Additionally, the articles on embryonic stem cells are not sufficient and need to be supplemented. Additionally, there are a lot of other articles that are not used in the class so it is a little wasteful. Finally, the need for two textbooks increases the cost to the students so requiring the purchase of only one of the texts will benefit the students financially. Specifically, with the no-cost anthology that we develop, the students will save $74.95 each.

Stakeholders affected by the transformation and a description of this impact: Our students will be the direct beneficiaries of this textbook transformation. Our students will save money and they will have course materials that are well aligned with topics covered in class and with the course objective of fully exploring a topic from multiple perspectives. Additionally, this transformation will benefit the students and professor in making it easier to find and assign certain articles. Sometimes there is confusion with the class in terms of what readings are due when since there are essentially 3 locations for the readings. Two textbooks and additional resources in the Content section of D2L. I try to make it as clear as possible with announcements and calendar items on D2L, however, there are still moments in class where students arrive not knowing that an article should have been read or emails about finding the location of an article. It will also make it easier in the sense that the anthology can be organized in the order that the topics are addressed in the class. Currently, we have to jump around in the published anthology.

Impact on the course and program. While we do not expect this transformation to significantly impact student success in the course, we do expect that it would make the course easier to follow. The lower cost of textbooks could also impact the registration and withdrawal rates.
Science majors typically spend hundreds of dollars per semester on textbooks, so reducing this cost in any way can help with retention.

1.2 Transformation Action Plan

1. **Survey and assess current course offering to get control data.** The current course offering is using the published textbook along with additional materials supplied by me. We will administer a survey, collect scores on assignments, and administer an assessment at the end of this course. Please see the section on Quantitative and Qualitative measures below for more information.

2. **Identify and review appropriate materials that cover the topics of the course from multiple perspectives.** We will review the current set of articles used in Bioethics course and determine if they are open access or if we have access to them in Galileo. For any articles that are copyrighted and require licensing fees, a search for comparable material that is available to us at no cost will be undertaken. Many of the appropriate articles can be found as open access or published in the Journal of Bioethics. We do have access to articles published after 1998 from this journal. We will also search for articles that can supplement the anthology in topics not covered in the text or not balanced in the text.

3. **Develop new materials.** This will include writing brief introductions to each unit to give background and context for the articles chosen for that section. For embryonic stem cells, this might include more scientific background on embryos, how embryonic stem cells are made, and what types of therapeutic interventions scientists hope to be able to develop as well as brief descriptions of major arguments addressed in the articles and a timeline of the legality of embryonic stem cell research in the United States.

4. **Organize materials for open access.** After we compile all of the material, we will consider how to best present these materials using both D2L and LibGuides. Jennifer Townes will create the LibGuide and provide training for its use.

5. **Teach course.** In Summer 2018, the course will be taught as a fully online course. I will use the new course materials in place of the previously required textbook. Based on assessment data, we will revise course material as necessary. We will share challenges and successes through regular meetings.

6. **Assessment of the Summer course offering.** Please see the section on Quantitative and Qualitative measures below.

7. **Dissemination of material.** The course materials will be hosted in Georgia View (D2L) and open for all students enrolled in the class. In addition, all open-access course materials will be made available on the course LibGuide.

1.3 Quantitative and Qualitative Measures

**Quantitative Measures.** We will assess student performance in both the Fall 2017 and Summer 2018 courses using position paper assignments on various topics throughout the course as well as a new assessment that will be developed that aligns with the course learning outcomes. It will assess their ability to identify the major arguments surrounding the topics covered during class and their ability to write moral arguments. These results will be compared with each other to observe student performance in textbook-based versions of the course versus the new no-cost anthology. We do not necessarily expect more students to meet the course outcomes after we replace the textbook, but we will make sure it does not decrease student achievement. Additionally, we will compare DFW rates both before and after the textbook transformation to determine if the no-cost format increases student retention and decreases course failure rates. In order to garner baseline data about students’ use of Open Educational Resources, we will administer the questionnaire published in the *2016 Student Textbook and Course Materials*
Survey by the Florida Virtual Campus Office of Distance Learning & Student Services (http://bit.ly/2k4EoWn).

**Qualitative Measures.** Students in the Fall 2017 and Summer 2018 sections (both the traditional anthology and the newly designed one) will complete a Student Assessment of their Learning Gains (www.salgsite.org) at the end of the course. Part of this survey will specifically ask students to rate how well the course resources such as the textbook and online materials, helped their learning. Students also self-describe the learning gains they made for each student learning outcome. We will compare student scores and comments both before and after the textbook transformation.

### 1.4 Timeline

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey and assess current course offering to get control data</td>
<td>Fall 2017</td>
</tr>
<tr>
<td>Identify and review appropriate materials for the new anthology</td>
<td>Fall 2017</td>
</tr>
<tr>
<td>Finalize articles for anthology and develop new material</td>
<td>Spring 2018</td>
</tr>
<tr>
<td>Organize materials for open access</td>
<td>Spring 2018</td>
</tr>
<tr>
<td>Submit interim status report to ALG.</td>
<td>Late Spring 2018</td>
</tr>
<tr>
<td>Teach course</td>
<td>Summer 2018</td>
</tr>
<tr>
<td>Assessment in Bioethics course</td>
<td>Summer 2018</td>
</tr>
<tr>
<td>Analyze assessment data</td>
<td>Summer 2018</td>
</tr>
<tr>
<td>Submit final report to ALG</td>
<td>Late Summer 2018</td>
</tr>
</tbody>
</table>

### 1.5 Budget

Kasey Karen will receive summer pay totaling $5,000 salary and benefits. Jennifer Townes will receive a contract overload totaling $5,000 salary and benefits. This funding will serve for redesigning courses, investigating open access sources, and analyzing data. Project expenses – including travel to the kick-off meeting, licensing and copyright fees – will total $800. The total budget request is $10,800.

### 1.6 Sustainability

The Department of Biological & Environmental Sciences is committed to offering BIOL 4310/5310 every year either as a face-to-face course in the Fall or a fully online course in the Summer. The new material would be used in each of these courses and would no longer require students to purchase the traditional anthology. The course material will be reviewed on an annual basis to review selected articles and renew any necessary licenses.

As the summer version of Bioethics uses D2L as the learning platform, it makes sense for us to continue to use this course management software. D2L allows instructors to easily rollover course content into future classes. Course materials will also be shared using a LibGuide. LibGuides are easy to create and edit, offer flexible design, and can be edited by multiple users. Files, links, widgets, video and more can be embedded in the guides, which may be useful for the brief introductions to each unit. In addition, LibGuide usage can be tracked through page views, providing feedback to guide creators. Sharing is encouraged and facilitated in the LibGuides Community, and so course materials can be easily shared with USG and other interested schools.