

**Affordable Learning Georgia Textbook Transformation Grants
Round 2
Summer 2015, Fall 2015, Spring 2016
Proposal Form and Narrative**

Please complete per inline instructions; the completed document is not to exceed four pages. The 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.

Institution Name(s)	Middle Georgia State College				
Team Members (Name, Title, Department, Institutions if different, and email address for each)	Dr. Kevin Floyd, Program Chair & Associate Professor of Information Technology, School of Information Technology, kevin.floyd@mga.edu Dr. Myungjae Kwak, Assistant Professor of Information Technology, School of Information Technology, myungjae.kwak@mga.edu				
Sponsor, Title, Department, Institution	Dr. Alex Koohang, Dean, School of Information Technology, Middle Georgia State College				
Course Names, Course Numbers and Semesters Offered (Summer 2015, Fall 2015, or Spring 2016)	ITEC 2380 Web Development (Summer, Fall, Spring) – 7 sections / year ITEC 3280 Web Programming (Fall, Spring) – 4 sections / year ITEC 4248 Web Development Environments (Fall) – 1 section / year				
Average Number of Students Per Course Section	30	Number of Course Sections Affected by Implementation in Academic Year 2016	12 sections /year	Total Number of Students Affected by Implementation in Academic Year 2016	360
Award Category (pick one)	<input type="checkbox"/> No-Cost-to-Students Learning Materials <input type="checkbox"/> OpenStax Textbooks <input type="checkbox"/> Course Pack Pilots <input checked="" type="checkbox"/> Transformations-at-Scale				
List the original course materials for students (including	<i>ITEC 2380 – Web Development & Design Foundations with HTML 5 7th edition</i>			<i>\$102.00 (210 students/year)</i>	

title, whether optional or required, & cost for each item)	<i>ITEC 3280 – Modern JavaScript Develop and Design</i> <i>ITEC 4248 – PHP and MySQL for Dynamic Websites</i> <i>jQuery and jQuery UI</i>	<p style="text-align: right;">\$36.00 (120 students/year)</p> <p style="text-align: right;">\$27.00 (30 students/year)</p> <p style="text-align: right;">\$22.00 (30 students/year)</p> <p style="text-align: right;">Total Cost \$27,210.00/year</p>	
Plan for Hosting Materials	<input type="checkbox"/> OpenStax CNX <input type="checkbox"/> D2L <input type="checkbox"/> LibGuides <input checked="" type="checkbox"/> Other <u>Course materials will be hosted on a public webserver at Middle Georgia State College</u>		
Projected Per Student Cost	\$76.00	Projected Per Student Savings (%)	100

1. PROJECT GOALS

- *To develop a series of online web applications development course materials*
- *To reduce student costs associated with textbooks*
- *To develop online resources that can be used by students and even by professionals world-wide in IT or related fields*
- *To improve student learning by providing online tutorial videos and examples that the students can try by themselves*
- *To develop an online web applications development resource site that can continuously reflect fast evolving web technologies and the feedbacks from the users*

1.1 STATEMENT OF TRANSFORMATION

- *Describe the transformation*

The purpose of this transformation is to develop a series of web-based web applications development course materials including tutorials and references covering the topics of HTML, CSS, JavaScript, PHP, MySQL database, and XML to replace existing four textbooks used in three ITEC courses at Middle Georgia State College. Since the materials will be web-based, they will be open and accessible to students and professionals world-wide and also can be easily updated to reflect fast evolving web development technologies.

- *Identify stakeholders affected by the transformation*

The stakeholders affected by the transformation are primary IT students taking web applications development related courses in the Information Technology program at Middle Georgia State College. Since the materials will be open to public, any IT professional world-wide can be potentially affected by the transformation.

- *Describe the impact of this transformation on stakeholders and course success.*

The transformation will impact on students by reducing costs associated with the textbooks currently required in three web applications development related ITEC courses. The transformation will develop a series of web-based web applications development course materials including tutorials and references that will replace the currently required textbooks. The materials will be accessible at no charge. Additionally, since the materials are completely web-based, they may be used by other institutions of higher education or by professionals world-wide.

Most textbooks, including those currently used in our web development related courses, currently include materials/chapters not applicable or outdated. The materials will present more focused content that is specifically aligned with the course objectives and

student learning outcomes. In addition, more detailed examples, explanations, interactive features, and tutorial videos on important topics will be provided to support student learning greatly.

- *Category 4 only: Describe the transformative impact on the program, department, institutions, access institution, and/or multiple courses.*

The transformation will initially impact on three web applications development related courses. Long term, the course materials will be continuously used and updated reflecting fast evolving web development technologies and also more tutorials and content will be added to the site to support additional courses. Since the materials will be accessible to anyone in the world, the content will likely bring recognition to the School and Institution.

1.2 TRANSFORMATION ACTION PLAN

- *The identification, review, selection, and adoption/adaptation/creation of the new course materials.*

The new course materials will be identified and gathered/created based on course objectives and student learning outcomes stated in the course syllabi of the three web applications development related ITEC courses. While some of the course materials can be created by referring to the currently used textbooks, most of them will be produced by using publicly available resources since most of the content taught in the three ITEC courses are standard web development technologies maintained by non-profit organizations and open source foundations.

The identified, selected, and re-created course materials will be officially adopted after the Curriculum Committee in the School of Information Technology at Middle Georgia State College thoroughly reviews and approves.

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

Since the new course materials will be completely web-based, each topic included in the online course syllabi will be linked to a web page, which contains all the materials relevant to the topic. Also, each course web page will be designed based on learning by doing approach to include many examples, tutorials, and hands-on features that allow students to test their own codes/programs at the site.

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

- *Dr. Kevin Floyd, as a subject matter expert and instructional designer, will identify and create new course materials and oversee the entire transformation process.*

- *Dr. Myungjae Kwak, as a subject matter expert and instructional designer, will create new course materials and develop hands-on features. Also he will set up and maintain a public/cloud server that houses the web site.*
 - *Two student programmers, one editor, and one graphic designer will be hired to help to develop the online course materials site.*
- *The plan for providing open access to the new materials.*

The new course materials will be housed in a public/cloud server and publicly available to students and any IT professionals in the world.

1.3 QUANTITATIVE AND QUALITATIVE MEASURES

- *Drop, Fail, and Withdraw (DFW) delta rate will be utilized to measure the student success quantitatively. Also, online survey will be given at the end of each semester to collect students' feedback. The feedback survey and faculty course evaluation results will be analyzed. Also, the site hosting course materials will be facilitated to allow the users to leave comments about the materials. Those comments will be also evaluated and used for the further enhancement.*

1.4 TIMELINE

- **January 31** – *Set up a public server and install/test necessary software*
- **April 30** – *Finish web site design and development and upload the course materials of ITEC 2380 (Web Development)*
- **May 31** – *Edit and upload the course materials of ITEC 3280 (Web Programming) and ITEC 4248 (Web Development Environments)*
- **August 15** – *Measure the student success for the ITEC 2380 (for summer semester)*
- **December 20** – *Measure the student success of the ITEC 3280 and ITEC4248 (for fall semester)*

1.5 BUDGET

- *Course release/overload - \$10,000 (2 faculty x \$5,000)*
 - *Student programmers - \$5,000 (2 x \$2,500)*
 - *Editor - \$2,500*
 - *Graphic designer - \$2,000*
 - *Server hosting cost - \$8,400 (1 server x \$350 x 24 months)*
 - *Travel expense - \$800*
- **Total cost - \$28,700**

1.6 SUSTAINABILITY PLAN

The new course materials will be continuously hosted at a public server and used in the three web development related courses in the future semesters. In addition, the course materials will be updated periodically by two faculty in the School of Information Technology reflecting feedback from various sources and newly emerged web development technologies in the industry.

1.7 REFERENCES & ATTACHMENTS

References

- Djenic, S., Krneta, R., & Mitic, J. (2011). Blended learning of programming in the internet age. *IEEE Transactions on Education*, 54(2), 247-254.
- Petrides, L., Jimes, C., Middleton-Detzner, C., Walling, J., & Weiss, S. (2011). Open textbook adoption and use: Implications for teachers and learners. *Open learning*, 26(1), 39-49.
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- Chesser, W. D. (2011). Chapter 5: the e-textbook revolution. *Library technology reports*, 47(8), 28-40.
- Murray, M. C., & Pérez, J. (2011). E-textbooks are coming: Are we ready. *Issues in Informing Science and Information Technology*, 8, 49-60.
- Allen, N., & PIRG, S. (2010). A cover to cover solution: How open textbooks are the path to textbook affordability. *Student PIRGs*.
- Miller, B. N., & Ranum, D. L. (2012, July). Beyond PDF and ePub: toward an interactive textbook. In *Proceedings of the 17th ACM annual conference on Innovation and technology in computer science education* (pp. 150-155). ACM.
- Jones, B. J., & Jackson, K. L. (2012). Reducing Textbook Costs: An Unconventional Approach. *Business Education Innovation Journal VOLUME 4 NUMBER 2 December 2012*, 66.
- Bergman, S. D. (2014). Open Source Textbooks: A Paradigm Derived from Open Source Software. *Publishing Research Quarterly*, 30(1), 1-10.

Attachments

- Attached: Letter of support from Dean of the School of Information Technology at Middle Georgia State College

December 5, 2014

Affordable Learning Georgia
2500 Daniells Bridge Road
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To: Whom It May Concern

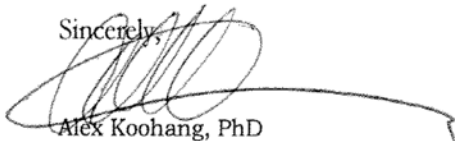
**Letter of Support for Affordable Learning Georgia Textbook Transformation Grants
Proposal**

I am very pleased to fully support the grant proposal entitled "Affordable Learning Georgia Textbook Transformation Grants" submitted by two faculty of the School of Information Technology at Middle Georgia State College. The proposed textbook transformation project is expected to improve student learning tremendously and reduce student costs greatly by providing web applications development course materials online at no cost. The new web applications development course materials will contain many beneficial learning instruments including tutorial videos and detailed code examples. Also, the online site hosting the course materials will be facilitated to allow the students to test their own codes at the site. Moreover, the course materials are expected to bring world-wide recognition not just to Middle Georgia State College but also to University Systems of Georgia since they are entirely web-based and publicly available to anyone in the world.

I truly believe that the proposed grant project is expected to make a significant contribution to the success of the USG textbook transformation grants. As the Dean of School of Information Technology at Middle Georgia State College, I strongly support this grant proposal and will make every effort to make all the required physical and human resources available to ensure the success of the project.

Please do not hesitate to let me know if you have any question.

Sincerely,



Alex Koohang, PhD
Dean, School of Information Technology
Peyton Anderson Eminent Scholar & Professor of Information Technology
Middle Georgia State College