

# Affordable Learning Georgia Textbook Transformation Grants Final Report (Round 2)

**Date:** May 20, 2016

**Grant Number:** 126

**Institution Name(s):** Middle Georgia State University

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

- Dr. Kevin Floyd ([kevin.floyd@mga.edu](mailto:kevin.floyd@mga.edu)), School of Information Technology
- Dr. Myungjae Kwak ([myungjae.kwak@mga.edu](mailto:myungjae.kwak@mga.edu)), School of Information Technology

**Project Lead:** Dr. Kevin Floyd

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

Web Development ITEC 2390

Web Programming ITEC 3280

Web Development Environments ITEC 4248

**Semester Project Began:** Spring 2015

**Semester(s) of Implementation:** Spring 2015, Fall 2015, and Spring 2016

**Average Number of Students Per Course Section:** 30

**Number of Course Sections Affected by Implementation:** 12 sections per year

**Total Number of Students Affected by Implementation:** 360 students per year

## 1. Narrative

### Accomplishments

- Transformed twelve sections of three IT web development related courses which formerly used hard-copy textbooks to on-line textbooks and course materials.
- Developed a public web server which included all course materials, case studies, and interactive example codes.
- Used Middle Georgia State IT survey tool to gain student feedback.

## **Challenges**

- Setting up a web server in campus and assigning a subdomain name to the website (<http://itwebtutorials.mga.edu/>).
- Designing and developing a website with proper theme and menus that contains all course materials and example case studies.
- Finding and reorganizing on-line resources which were similar to the hard-copy textbooks used in classes.
- Some students had difficulty “finding” materials on the website.
- Updating/maintaining the website is time consuming and demanding.
- Practice must be printed out, copied, and handed out during class for additional student practice sets.
- Raising students’ expectations for a course after they learn that they are not required to buy a textbook for that course.

## **Transformative impacts on instruction:**

- Generally positive acceptance by students.
- No serious issues were brought to faculty’s attention from students after using on-line course materials.
- Once on-line textbook site was constructed and used, classes ran smoothly and instructors didn’t need to worry about handing out course materials.

## **Transformative impacts on students and their performance**

- Most of students liked the transition from hard-copy textbooks to the free on-line course materials since most of them already got used to digital resources and they can refer to the materials wherever and whenever they want.
- Some students expressed difficulty in locating right materials on the website.

## **Lessons Learned**

- Many students have been waiting for online textbooks and resources.
- Need to continuously update the course materials since web development technologies are evolving/changing fast.
- Need more time to create various case studies for assignment.
- Need to provide more supporting materials for students’ in-depth learning.
- Need to conduct more feedback surveys to determine issues students may have.

- Need to implement a way of receiving direct student feedback on specific course materials.

### List of Used Online Resources

- [www.w3schools.com](http://www.w3schools.com)
- [www.php.net](http://www.php.net)
- [www.w3.org](http://www.w3.org)
- [www.mysql.com](http://www.mysql.com)
- [jquery.com](http://jquery.com)

### List of Constructed Course Websites

- ITEC 2380 Web Development: <http://itwebtutorials.mga.edu/html/default.aspx>
- ITEC 3280 Web Programming: <http://itwebtutorials.mga.edu/js/default.aspx>, <http://itwebtutorials.mga.edu/xml/default.aspx>, and <http://itwebtutorials.mga.edu/php/default.aspx>
- ITEC 4248 Web Development Environments: <http://itwebtutorials.mga.edu/php/default.aspx>



## Web Development Tutorials



- About the SoIT
- HTML Tutorial
- JavaScript Tutorial
- XML Tutorial
- PHP Tutorial

## Web Development Tutorials

These tutorials are designed to support college-level classes in Web development at Middle Georgia State University, but they can provide introductions to these topics for anyone interested. All are works in progress and are being expanded as time permits. They have been tested using the latest versions of modern browsers.

The development of these tutorials was supported by a new University System of Georgia initiative, Affordable Learning Georgia (ALG), which focuses on reducing the costs of textbooks and the enhancement of GALILEO, Georgia's Virtual Library and ALG's parent initiative.

- Web Development Tutorials
  - About the SoIT
  - HTML Tutorial
  - JavaScript Tutorial
  - XML Tutorial
  - PHP Tutorial

Dr. Kevin S. Floyd  
Dr. Myungjae Kwak  
Mr. Alan Stines  
School of Information Technology  
© 2016



TOP

## 2. Quotes

**Student 1:** *It is wonderful that there is a system dedicated to helping student get the textbooks they need for free. Paying tuition, plus textbooks on top of that really does suck. With the climbing prices of textbooks due to publishers making up for the falling market, it is very good to have a program willing to help students get the materials they need for a good price, or in this case, free. Students have enough to worry about without needing to shell out hundreds of extra dollars for texts, and this program is incredible for helping in the way that it does.*

**Student 2:** I think that the textbook could always have tutorial videos for certain classes. With web development it sometimes would have been helpful to be able to watch a web tutorial over the content. Other than that I believe that the textbook was integrated into the course perfectly.

It would be pretty awesome if there was a personalized link or something in D2L that "bookmarked" where you left off, and you can click on it to go straight to the section you were in middle of reading. (I used the IT Web Tutorials for initially learning the information and also for reference when actually creating webpages.)

**Student 3:** Thank you! It was such a great resource and I didn't feel any lacking about not having a "real" textbook. If you had more tutorial textbooks that were of the same quality for more courses, I would be thrilled!

## 3. Quantitative and Qualitative Measures

### 3a. Overall Measurements

#### Student Opinion of Materials

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

Total number of students affected in this project:   175  

- Positive:   64   % of   50   number of respondents
- Neutral:   26   % of   50   number of respondents
- Negative:   10   % of   50   number of respondents

### Student Learning Outcomes and Grades

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

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?**

**Drop/Fail/Withdraw Rate:**

20% of students, out of a total 257 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)
- Negative: This is a higher percentage of students with D/F/W than previous semester(s)

### 3b. Narrative

**Table 1** shows the rubrics (**number** and **percentage** of students) for the **Pass/Fail and Withdrawal (PFW)** for Web Development, Web Programming, and Web Development Environments courses.

**Table 1. Courses, number of enrolled students, and pass/fail/withdrawal percentages**

<b>Courses</b>	<b>Semester &amp; Year</b>	<b># of Enrolled Students</b>	<b>Pass (%)</b>	<b>Fail (%)</b>	<b>Withdraw (%)</b>
<b>ITEC 2380</b> Web Development (Online Textbook: <b>Summer 2015 ~</b> )	Fall 2014	25	68.0	8.0	24.0
	Spring 2015	30	73.3	20.0	6.7
	Summer 2015 (Online Textbook)	24	75.0	20.8	4.2
	Fall 2015 (Online Textbook)	50	70.0	14.0	16.0
	Spring 2016 (Online Textbook)	58	77.6	8.6	13.8
<b>ITEC 3280</b> Web Programming (Online Textbook: <b>Fall 2015~</b> )	Fall 2014	47	89.4	2.1	8.5
	Spring 2015	53	86.8	7.5	5.7
	Fall 2015 (Online Textbook)	60	86.7	6.7	6.7
	Spring 2016 (Online Textbook)	65	87.7	9.2	3.1
<b>ITEC 4248</b> Web Development Environment (Online Textbook to be used <b>Fall 2016</b> )	Fall 2014	26	73.0	4.0	23.0
	Fall 2015	22	59.0	41.0	0.0

After analyzing student performance changes of ITEC 2380 (Web Development) and ITEC 3280 (Web Programming), we found that student performance for ITEC 2380 increased after online textbook was introduced and that student performance for ITEC 3280 remained the same.

In both the Fall 2014 and 2015, we did not use the online course materials website for ITEC 4248 (Web Development Environments). The website will be used for the ITEC 4248 in the Fall 2016.

#### **4. Sustainability Plan**

- We will continue to use the website for three web development related courses including Web Development, Web Programming, and Web Development Environments.
- We will continue to maintain and update the online course materials referring to textbooks and online resources.
- We will continue to gather students' feedback and enhance the course materials.

## **5. Future Plans**

- We will consider adding content for emerging web development frameworks and technologies.
- We will consider creating content for other courses such as .NET and Java programming languages.
- We will create more case studies and tutorial videos so that students can learn by doing hands-on projects.
- We will consider publishing an article after analyzing students' feedback and performance.

## **6. Description of Photograph**

- (left-right) Dr. Myungjae Kwak and Dr. Kevin Floyd