Grants Collection Middle Georgia State University



UNIVERSITY SYSTEM OF GEORGIA

Kevin Floyd, Myungjae Kwak

Web Development







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.



Unless otherwise indicated, all Grants Collection materials are licensed under a <u>Creative Commons Attribution 4.0 International License</u>.



Syllabus ITEC 2380-03 – Online Web Development Spring 2016 – On Line

Section 1 – General Course Information

Course CRN#: 24367

Instructor Information

Instructor:	Myungjae Kwak, Ph.D.
Office:	PSC 314
Office Phone Number:	478-757-6682
Email:	<u>myungjae.kwak@mga.edu</u>
Tentative Office Hours:	Monday 1:30 – 3:30
	Tuesday 1:00 – 4:00 pm
	Wednesday 1:00 – 4:00 pm
	or by appointment

Section 2 – Standard Course Information

Credit: 3 hours

Prerequisite or Co-requisite: At least a "C" in either ITEC 2215

Course Description

This course introduces concepts and practices associated with Web Site Development. The focus is on site and page design, page layout techniques, styling methods, coding practices, selection of typography, graphics, multimedia, accessibility issues, site publishing, testing, maintenance, and site marketing (SEO).

Course Materials

http://itwebtutorials.net/html/index.php

Supplementary sites http://www.w3schools.com/ http://www.w3.org/standards/webdesign/htmlcss

Required Software

Windows Users: Notepad++ (http://notepad-plus-plus.org), Microsoft Expression Web 4, Dreamweaver, or any web development tools can be used for conducting computer lab work and for completing assignments. Notepad++ is recommended for beginners.

Mac Users: TextWrangler (http://www.barebones.com/products/textwrangler/), Brackets (http://download.brackets.io), Sublime (http://www.sublimetext.com), and Komodo Edit (http://www.activestate.com/komodo-edit).

Course Outcomes

The purpose of this course is to provide the know-how and skills to create Web pages using common markup languages and styling techniques. The focus of the course is on the technologies for formatting and presenting information through the Hypertext Markup Language (HTML5), Extensible HyperText Markup Language (XHTML), and Cascading Style Sheets (CSS). Students develop various types of Web pages to gain survey knowledge of current technologies and practices. At the completion of the course students should be able to:

- Identify the HTML markup tags for structuring web pages
- Identify the CSS properties and elements for styling, formatting, and enhancing web
 pages
- Develop web pages using HTML5 and CSS
- Evaluate and validate HTML5 documents for conformance to the latest
- W3C markup standards
- Analyze and evaluate web pages for conformance to Section 508 and W3C accessibility standards
- Design web pages using common web design principles

Topics

- Introduction to creating web pages
- Basic document layout using HTML5
- Basic document styling using CSS
- Text formatting
- Using Graphic Imaging
- Applying special CSS styles
- Linking Pages
- Using tables
- Playing multimedia
- Using frames
- Creating HTML5 forms
- Designing web sites

Section 3 – Course Assessment Information

Course Assessments

You will be evaluated on web development case studies, midterm exam, final project, and online discussions participation.

Case Studies

Eleven case studies assignments are worth 220 points toward the student's overall course grade. Case studies are to be uploaded to your web folder on the campus server by midnight of the due date listed on the class schedule. The student must submit the URL <u>via the Dropbox in D2L</u> in order to receive credit. If you don't have your Web directory, please refer to WEBDAV tab in the following URL (<u>http://www.mga.edu/technology/services.aspx</u>).

Final Project

A hands-on application development project is worth 100 points toward the student's overall course grade. Points will be given based on the creativity and completeness of the final outcome. Project topic, timeline and evaluation criteria will be announced in D2L after the midterm exam.

Assignments Submission Policy

To obtain full credit for each assignment or project, the student must submit the assignment by its deadline. If an assignment or project is submitted past the deadline, 50% penalty will be applied and another <u>10% penalty</u> will be applied for each 24 hour delay. No late case studies, discussions, exams, or final projects will be accepted without prior approval of the instructor.

<u>Exam</u>

Midterm exam is worth 60 points. Format will be multiple choice, coding, and short/long answer questions.

Participation

Ten online discussions are worth 50 points. You are expected to post questions and/or opinions and answer instructor or other students' questions in D2L discussion boards actively. Your activities will be evaluated subjectively.

Grading Policy (Total 435 points)

- Case Studies (11 × 20 pts = 220 pts)
- Midterm Exam (60 pts)
- Project (100 pts)
 - A: 100 pts, B: 80 pts, C: 60 pts, D: 40 pts, F: 0 pts
- Online Discussion Participation (11 x 5 pts = 55 pts, subjective)

Grading Scale

- A: 391.5 435 points
- B: 338 391 points
- C: 304.5 337 points
- D: 261 304 points
- F: fewer than 260 points

Section 4 – Standard Course Policies

Online Course Policies, Expectations, and Guidelines for Students

EXPECTATIONS

- 1. Online courses are not self-paced and regular participation in online courses is required and will be recorded by your instructor. Students are expected to complete all course assessments using D2L.
- 2. Online learning assumes a high level of maturity and professionalism. It is designed to make learning more convenient but no less rigorous. The lack of a formal meeting schedule in an online course can be liberating. It can also be demanding because you must determine when to make time for class. Self-discipline and good time management skills are necessary when taking an online course.
- 3. Please remember that you will spend as much or more time completing an online course as you would taking it in a traditional face-to-face/classroom format. The special circumstances of taking an online course demand regular and consistent participation. Be sure to pace yourself throughout the semester making sure your responses to communications and assignments are timely. If you are not able to participate in any assigned class activities, you must contact your instructor immediately.
- 4. The instructor is required to report "no-shows" or students who do not show up the first day of class. Therefore, all students enrolled in the course must verify their enrollment. This can affect financial aid and you may be dropped from the class. Your instructor will notify you as to how to verify your enrollment before the beginning of the term to ensure that you are not reported as a "no-show".

ONLINE COURSE POLICIES

- 1. Students are required to have access to a computer and the Internet.
- 2. All course materials (i.e. course syllabus, course content, the assignments and the schedule of activities, etc.) are posted in D2L's course/class web site.
- 3. MGA email and/or D2L are used only for communication between the instructor and students. The instructor will endeavor to reply to your email queries within 12 hours and no more than 24 hours of their receipt, excluding weekends and holidays or during semester breaks. Private email accounts must not be used to communicate between the instructor and students.

- Students must immediately review the tentative course schedule (included as part of the syllabus) for the schedule of discussion activities, assignments, projects, and/or examinations.
- 5. Students must attend class if they are to be well prepared for the workplace. Online courses are no different from on-campus classroom courses in this regard. Therefore, online students are subject to the university's attendance policy. Please see the "Attendance Policy" in the university's catalog. For online classes, participation must be defined in a different manner. Student attendance in online courses is defined as active participation in the course as described in the course syllabus.
- 6. Online courses will, at a minimum, have weekly mechanisms for student participation, which can be documented using any or all of the following methods:
 - a. a graded discussion activity that is integral to student engagement and learning;
 - b. a graded assignment/project/examination.
- 7. Your instructor will begin grading all assessments after the deadline and make the results available to you within one week after the due date for the assessment.

ONLINE DISCUSSIONS AND POSTINGS

Expectations for Achieving Responsible Online Discourse

One value we must share is respect for individuals - their experience and their ideas or social positions. We also share a genuine desire to learn from one another. In order to demonstrate these shared values, you are encouraged to consider how your tone, word choice, and content may affect other readers. Some ways people achieve responsible public electronic discourse include

- a) calling each other by name on the screen,
- b) using smiley faces =) to clarify meaning if a writer's tone might be ambiguous,
- c) clarifying with someone courteously before "flaming" back a quick response, and
- d) refraining from publishing or forwarding any questionable jokes or strong language that could offend various readers.

Guidelines for Online Discussions

1. Not only respond to your instructor's questions, but carry on a dialogue with your classmates as well. This is a discussion, not just a question and answer session, and is one of the items that make a good online course and establishes community. If you only

respond to your instructor's question it makes the discussion more of an "exam" rather than a dialogue.

- 2. Do not get caught up in "winning" the debate. We are here to learn the material, have fun, and to discuss matters of importance with others.
- 3. Read all postings from your classmates, not just those from the instructor. Sometimes future questions are based on the insights of your classmates.
- 4. When you reply to a post, don't just say "I agree". Give the person or person's name you are agreeing with and be sure to put the reply in the right thread. Also include a brief sentence or two summarizing what they said that you are agreeing with and then your views. You might also consider changing the subject line to reflect your posts. Make it easy for us to figure out who you are talking to and what you are talking about.
- 5. If you express an opinion, support it with material from our readings or other sources if applicable. When you quote, summarize, or paraphrase from the text, be sure to give the page number(s) -- This is important!
- 6. Count on checking the class website for assignments or discussions at least twice or more per week.

Student Withdrawal Policy

Students who wish to withdraw from the University must complete the withdrawal procedure. The student can complete the withdrawal procedure in two ways, 1) online through Banner Web if they do not have HOLDS, OR 2) in the Registrar's Office, the Warner Robins Campus Office, or the Robins Resident Center Office. Withdrawal is not complete until all withdrawal procedures have been properly executed. Students may not withdraw from the University during the last two weeks of a semester.

Policy on Academic Misconduct

As a Middle Georgia State University student and as a student in this class, you are responsible for reading, understanding, and abiding by <u>Middle Georgia State University's Student Code of</u> <u>Conduct</u>. The Student Code of Conduct is included in the MGA Student Handbook and is available online at: <u>http://www.mga.edu/student-affairs/docs/MGA_Student_Handbook.pdf</u>.

Especially, it is very important that you recognize and understand the following about academic misconduct:

1. Individuals will fulfill their academic responsibilities in an honest and forthright manner.

Examples of prohibited behavior include but are not limited to: plagiarizing another's work (such as using another's phrasing, concepts or line of reasoning as your own without giving proper credit to the author or creator); submitting course assignments that are not your own; submitting the same paper in different classes without prior approval from both instructors; cheating (the use of any unauthorized means to gain academic advantage on assignments, laboratory reports or examinations); acquiring or using test materials without faculty knowledge; accessing any information, resource, and/or means of communication during an exam or assignment without specific authorization from the professor; failing to follow class policy; obtaining academic benefits through computer fraud or unauthorized access; engaging in academic fraud alone or with others; using material downloaded off Internet without proper citation; illicitly attempting to influence grading; failing to abide by test-taking procedures.

The institutional penalty for academic misconduct is a grade of zero for the work involved and will be referred to the Dean of Students.

Technical Policy

A plagiarism prevention service is used in the evaluation of written submitted for this course. As directed by the instructor, students are expected to submit or have their assignments submitted through the service in order to meet requirements for this course. The papers may be retained by the service for the sole purpose of checking for plagiarized content in future student submissions.

Policy on Disability Accommodations

Students seeking academic accommodations for a special need must contact the Middle Georgia State University Counseling Center (478.471.2985, TDD 478.471.5798) located on the first floor of the Learning Support Building, Room 110 on the Macon Campus.

Section 5 – Instructor-specific Policies

Rationale

Web development in general is to build a foundation of skills creating web pages. However, a GOOD web developer needs to learn up-to-date information, e.g., HTML5 and CSS3 and design principles, e.g., proximity, alignment, contrast, and navigation design to meet current requirements in the highly competitive job market.

Format and Procedures

The course is structured with the reading, lab exercise, case studies, discussion topics, exams, and a final project to build a holistic approach to web development.

- For each learning module, the instructor not only discusses the web development, but also demonstrates relevant software tools and design principles to design web pages.
- The instructor will also guide class discussions to motivate students to brainstorm and to have creative ideas in web designs.
- Students are expected to actively involved in such discussions and contribute their knowledge to the class and peers.
- Students are expected to explore their knowledge out of the class via papers, books, internet information and think critically with depth and breadth in all class discussions and projects.

Course Requirements

- 1. Students have to read and review the sections of course material site (see the Tentative Course Schedule and Outline) each week and practice the HTML and CSS code covered in the course material site to have a better understanding of web development and assignments. Note that merely watching video clips and reading materials will NOT help you understand the web development. Students have to practice each hands-on exercise and debugging your code frequently to master your web development skills. This course will be a great opportunity to improve your overall typing skills as well.
- Homework Assignments/Case Studies Homework assignments are available at the end of each section. The case listed at the end of each section is used for assignments. Students can discuss and exchange web design and debugging skills; however, each student has to submit his/her own work.
- 3. **Discussion Topics** The regular discussion topics may include Web Research or any topics relevant to web development and design. Each student is expected to submit his/her own work. You are required to submit your discussion posts to the Drobox as well.

"What I grade" will be the Drobox submission in D2L. I encourage everyone to participate in open discussions.

4. **Final Project** The final project requires students to master web development skills in chapters. Students will have to select a topic to develop the final project. In addition, everyone is encouraged to include design principles, usability tests, and add-on components such as Google Map, Lightbox, and jQuery. Specific requirements of the final project will be announced by the instructor.

The final project includes **1**) web development, and **2**) documentation of the project. The final project aims to cultivate the students' web development ability. The Final Project has to incorporate **1**) a summary of development (e.g., developing HTML5 and CSS, designing graphics, and designing interfaces), and **2**) a documentation of the final project.

HTML5 and CSS Validation Service

Students who have difficulties in finishing their assignments or final project should contact tutors or the instructor as early as possible. The instructor does NOT offer debugging service. There is no excuse to develop a 'sloppy' HTML5 and CSS code for this course. Students should learn how to debug HTML5 and CSS codes through W3C Markup Validation Service (http://validator.w3.org/) and CSS Validation Service (http://jigsaw.w3.org/css-validator/). Student files for web page exercises and Website Case Studies are provided on the cover page of your textbook with an **online access code**.

Tutoring

The tutoring service is listed as follows:

- 1. Macon Campus. Call the School of Information Technology at 471-2801 to set up an appointment with tutors.
- 2. Contact the instructor.

Communicating with Instructor

There are five ways to communicate with me. They are face-to-face, school email, D2L email, phone, and D2L discussion board in the order of my preference. I will check the school and D2L emails and discussion board periodically and try to reply to your post or email as soon as I can.

Especially, when you e-mail me using your MGA e-mail account, please make sure that your email should have a meaningful subject line that reads "ITEC 2380: Short description of the request.

Section 6 – Tentative Course Schedule and Outline

ITEC 2380-03

As of 1/7/2016

The schedule below contains class activities, assignments and deadlines. Note that the course schedule is "tentative" and subject to change based on student and/or pedagogical needs. All changes will be announced and posted on the course website.

Class/Date	Activities	Notes/Due Dates
Week 1	Introductions	- HW1 – Due by 1/26
(1/11 –	Syllabus Review	Discussion1 – Due
1/17)	Section 1. Creating Web Pages	by 1/26
	http://itwebtutorials.mga.edu/html/chp1/default.aspx	
Week 2	Section 2. Basic Document Layout	 HW2 – Due by 2/2
(1/18 –	http://itwebtutorials.mga.edu/html/chp2/default.aspx	Discussion2 – Due
1/24)		by 2/2
Week 3	Section 2. Cont.	
(1/25 –	http://itwebtutorials.mga.edu/html/chp2/default.aspx	
1/31)		
Week 4	Section 3. Basic Document Styling	 HW3 – Due by 2/9
(2/1 – 2/7)	http://itwebtutorials.mga.edu/html/chp3/default.aspx	 Discussion3 – Due
		by 2/9
Week 5	Section 4. Text Formatting	 HW4 – Due by 2/16
(2/8 – 2/14)	http://itwebtutorials.mga.edu/html/chp4/default.aspx	 Discussion4 – Due
		by 2/16
Week 6	Section 5. Graphic Images	 HW5 – Due by 2/23
(2/15 –	http://itwebtutorials.mga.edu/html/chp5/default.aspx	 Discussion5 – Due
2/21)		by 2/23
Week 7	Section 6. Applying Special Styles	 HW6 – Due by 3/1
(2/22 –	http://itwebtutorials.mga.edu/html/chp6/default.aspx	 Discussion6 – Due
2/28)		by 3/1
Week 8	Midterm exam (Sections 1 – 6)	- Exam will be
(2/29 – 3/6)		available in D2L
		from <u>3/3 to 3/5.</u>
Week 9	Spring Break – No Class	
(3/7 – 3/13)		

Week 10	Section 7. Linking Pages	- HW7 – Due by 3/22
(3/14 –	http://itwebtutorials.mga.edu/html/chp7/default.aspx	- Discussion7 – Due
3/20)		by 3/22
Week 11	Section 8. Using Tables	- HW8 – Due by 3/29
(3/21 –	http://itwebtutorials.mga.edu/html/chp8/default.aspx	- Discussion8 – Due
3/27)		by 3/29
Week 12	Section 9. Playing Multimedia	- HW9 – Due by 4/5
(3/28 – 4/3)	http://itwebtutorials.mga.edu/html/chp9/default.aspx	 Discussion9 – Due
	Final project will be released.	by 4/5
Week 13	Section 10. Creating Forms	- HW10 – Due by
(4/4 - 4/10)	http://itwebtutorials.mga.edu/html/chp10/default.aspx	4/19
		- Discussion10 – Due
		by 4/19
Week 14	Section 10. Cont.	
(4/11 -	http://itwebtutorials.mga.edu/html/chp10/default.aspx	
4/17)		
Week 15	Section 11. Designing Web Sites	- HW11 – Due by
(4/18 –	http://itwebtutorials.mga.edu/html/chp11/default.aspx	4/26
4/24)		- Discussion11 – Due
		by 4/26
Week 16	Special Topics: Bootstrap	
(4/25 – 5/1)		
	-	
Week 17	Final project due: <u>Midnight, 5/6</u>	
(5/2 – 5/8)		

Initial Proposal

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, <u>kevin.floyd@mga.edu</u> Dr. Myungjae Kwak, Assistant Professor of Information Technology, School of Information Technology, <u>myungjae.kwak@mga.edu</u>				
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)	 No-Cost-to-Students Learning Materials OpenStax Textbooks Course Pack Pilots Transformations-at-Scale 				
List the original course materials for students (including	ITEC 2380 – Web Development &\$102.00Design Foundations with HTML 5 7th(210 students/year)edition			'year)	

title, whether optional or required, & cost for each item)	d, Develop and Design ITEC 3280 – Modern JavaScript Develop and Design ITEC 4248 – PHP and MySQL for Dynamic Websites jQuery and jQuery UI S22.00 (30 students/year) 522.00 (30 students/year) Total Cost \$27,210.00/year				
Plan for Hosting Materials	 OpenStax CNX D2L LibGuides Other <u>Course materials will be hosted on a public webserver at</u> Middle Georgia State College 				
Projected Per Student Cost	\$76.00	Projected Per Student Savings (%	6) 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 worldwide 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 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.
- Cavanaugh, T. (2011, March). Integrating an Open Textbook into Undergraduate Teacher Education. In Society for Information Technology & Teacher Education International Conference (Vol. 2011, No. 1, pp. 2372-2378).
- 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 Building 300 Athens, Ga 30606

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

Final Report

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), School of Information Technology
- Dr. Myungjae Kwak (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 (<u>http://itwebtutorials.mga.edu/</u>).
- 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 online 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
- www.php.net •
- www.w3.org
- www.mysql.com •
- 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 SolT 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.

Google" Custom Search

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 SolT HTML Tutorial JavaScript Tutorial XML Tutorial
- PHP Tutorial

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

LearningGeorgia

Search ×



© 2015 | Middle Georgia State University | School of Information Technology Site Index | Modified: 3/7/2016

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)
- _X_ 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)
- _X_ 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 andWithdrawal (PFW) for Web Development, Web Programming, and Web DevelopmentEnvironments courses.

Courses	Semester & Year	# of Enrolled Students	Pass (%)	Fail (%)	Withdraw (%)
ITEC 2380 Web Development (Online Textbook: Summer 2015 ~)	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
ITEC 3280 Web Programming (Online Textbook: Fall 2015~)	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
ITEC 4248 Web Development Environment (Online Textbook to be used Fall 2016)	Fall 2014	26	73.0	4.0	23.0
	Fall 2015	22	59.0	41.0	0.0

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

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