

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Web Design and Development	110	WEB 110 02/22/2023-Web Development I
College	Division	Department
Business and Computer Technologies	Business and Computer Technologies	Digital Media Arts (new)
Faculty Preparer		Kelley Gottschang
Date of Last Filed Assessment Report		

I. Review previous assessment reports submitted for this course and provide the following information.

1. Was this course previously assessed and if so, when?

Yes 2016

2. Briefly describe the results of previous assessment report(s).

The report showed that the students who completed the assignments did very well.
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3. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

It was identified that the course materials could be modified to build more engagement with the students. After the assessment, the course materials were rewritten, broken down in to smaller chunks so that students could more easily study and apply lecture information and the content was broken down in to more manageable chunks. Code examples were color coded for better identification.
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II. Assessment Results per Student Learning Outcome

Outcome 1: Create web pages in a text editor using valid, appropriate and streamlined HTML5 for document structure and valid, appropriate and streamlined CSS for formatting.

- Assessment Plan
 - Assessment Tool: Layout Project
 - Assessment Date: Fall 2022

- Course section(s)/other population: All sections
- Number students to be assessed: All students
- How the assessment will be scored: Departmentally-developed rubric
- Standard of success to be used for this assessment: 75% of the students will score 75% or higher.
- Who will score and analyze the data: Departmental faculty and instructors

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2022	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
36	19

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

This assessment is based on assessing the work that was turned in. Only 19 students turned in the work.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

These were students from a face-to-face section and an online section.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A rubric was used for the assessment. Five layout projects were evaluated based on four criteria. See attached rubric. Students were marked as meeting the criteria if they scored 75% or better on each criteria for the 4 or 5 layouts. 3 or below was considered not met.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

The majority of students mastered this part of the curriculum. They were able to demonstrate the ability to follow precise technical specifications, produce high quality code, codify appropriate metadata and produce a completely validated code file. This is not a simple task and we are pleased at how many students show a solid, fundamental ability to code HTML5 and CSS3.

90% of criteria were met at a 4 or 5, out of 5.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The majority of students mastered this part of the curriculum. They were able to demonstrate the ability to follow precise technical specifications, produce high quality code, codify appropriate metadata and produce a completely validated code file. This is not a simple task and we are pleased at how many students show a solid, fundamental ability to code HTML5 and CSS3.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Looking at the graph for Outcome 1, the area that has the most red (not met) is under validation. This can be a tough thing for students to master because the code can work perfectly fine but be invalid (and not professional) but it may seem perfectly fine.

Looking in to the students' work, most of the students who struggled here didn't validate correctly on their first few layouts but by the time they got to the last project, they had it mastered. All of their labs and layouts require validation. We will consider having validation a larger part of the grading on their labs so they learn more quickly how necessary it is to master that skill.

Outcome 2: Publish web pages on a web server using an SFTP (Secure File Transfer Protocol) program.

- Assessment Plan
 - Assessment Tool: Layout Projects
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric

- Standard of success to be used for this assessment: 75% of the students will score 75% or higher.
- Who will score and analyze the data: Departmental faculty and instructors

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2022	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
36	19

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

This assessment is based on assessing the work that was turned in. Only 19 students turned in the work.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

One section was face-to-face and one section was online.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The outcome was evaluated with a rubric. 5 layouts were evaluated. They were scored as either correctly uploaded or not correctly uploaded. Students who uploaded 4 or 5 correctly met the criteria. Students who had 0-3 uploaded correctly didn't meet the criteria.

95% of students scored a 4 or 5.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Students demonstrated that they were able to successfully upload complex directory structures, with multiple directories, images and code file. Again, this

isn't always easy as your site may work perfectly fine on your computer but when you upload it to the server, things can go wrong. We were pleased that all students but one were able to upload their files properly.

The outcome criteria were met.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Student demonstrated that they were able to successfully upload complex directory structures, with multiple directories, images and code file. Again, this isn't always easy as your site may work perfectly fine on your computer but when you upload it to the server, things can go wrong. We were pleased that all students but one were able to upload their files properly.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

The student who scored the red line in the data still uploaded the last three layouts correctly which indicates that they learned from the previous labs and layouts to master the skill. At 95% correctly uploading layouts, we feel this area is working well.

Outcome 3: Create web page based upon a design mock up.

- Assessment Plan
 - Assessment Tool: Layout Project
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 75% or higher.
 - Who will score and analyze the data: Departmental faculty and instructors
- 1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2022	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
36	22

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

The assessment was based on a final layout project. 22 students turn it in.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

There was one face-to-face section and one online section evaluated.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Students were evaluated across four criteria for the final layout. Students needed to score FM (fully met) in order to meet the outcome. If a student scored a SM (somewhat met), they were not considered to have met the outcome.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

90% of students scored 75% or better on this final layout. All students fully met the Metadata requirement. All but 1 fully met the Code Quality and Validation requirement. And all but 2 fully met the Specifications requirement. We are pleased to see that students are able to fully code, validate and upload a site with minimal guidance (like a professional would be asked to do). This isn't easy but the students were able to take a design mockup and create a fully functioning site.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

90% of students scored 75% or better on this final layout. All students fully met the Metadata requirement. All but 1 fully met the Code Quality and Validation requirement. And all but 2 fully met the Specifications requirement. We are pleased to see that students are able to fully code, validate and upload a site with minimal guidance (like a professional would be asked to do). This isn't easy but the students were able to take a design mockup and create a fully functioning site.

- Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Overall, this is very positive. This is complicated work and the students are doing very well. Student 2 had two issues and Student 8 had the other two. All the other students completely met the criteria. Overall, we believe this is working well.

III. Course Summary and Intended Changes Based on Assessment Results

- Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

The changes were effective. It seemed like more students were able to complete the final project with their own skills. In the last assessment, the final outcome was not met by the students who were evaluated. Only 53% met the criteria. In this evaluation 90% of the students met the criteria.

- Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

We believe the course is meeting the needs of the students who are interested in learning to code. I was a bit surprised to note that it was one or two students who didn't meet the criteria. The students who got it, really got it.

- Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

I will share at the next department meeting after this is approved.

- Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Assignments	Validation assignments will be graded more heavily in the beginning labs so students can master that skill earlier in the course. We will provide a video	This should allow students to learn from their validation mistakes earlier so they can master the skill.	2023

	lecture on validation for students to watch.		
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5. Is there anything that you would like to mention that was not already captured?

6.

III. Attached Files

[WEB 110 Rubric and Data](#)

Faculty/Preparer: Kelley Gottschang **Date:** 02/23/2023
Department Chair: Ingrid Ankerson **Date:** 02/24/2023
Dean: Eva Samulski **Date:** 02/27/2023
Assessment Committee Chair: Shawn Deron **Date:** 03/20/2023

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Web Design and Development	110	WEB 110 05/09/2016-Web Development I
Division	Department	Faculty Preparer
Business and Computer Technologies	Digital Media Arts	Scott Shaper
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Apply the tags and attributes used in HTML5, as well as the properties and values used for formatting and text styling in CSS 1-3.

- Assessment Plan
 - Assessment Tool: Final Project (a small Web site)
 - Assessment Date: Winter 2016
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% or higher.
 - Who will score and analyze the data: Departmental faculty and instructors

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
75	30

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Assessment was only for sections 1, 2 and 3. Also only includes students who actually did the assignment.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students from sections 1, 2 and 3 were included that had completed the assignment.

Section 1 and 2 were morning classes.

Section 3 was an afternoon class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final project was a one page website that the students had to build based upon a screen shot. The build had to be exact down to the pixel. They demonstrated that they were able to code a webpage using CSS and HTML.

Project was scored based upon how accurate and how much of the page was done.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Only 30 students of the original 56 did the final assignment. The others either had withdrawn or did not do the final assignment. The final grades showed the following:

53% of the students scored 80% or better on this assignment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students who successfully completed this outcome with 80% or better actually did more like 95% or better. They demonstrated that they could code a webpage down to the pixel based upon a screenshot, that clearly shows that they understand html and css.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

More students need to participate in this assignment. This was the last assignment and many decided just not to do it. For those who did do it the performance was bad. Corrections have already been made to the course material to better explain and give practice with the various html and css properites.

Outcome 2: Create Web pages in a text editor using valid, appropriate and streamlined HTML5 for document structure and valid, appropriate and streamlined CSS for formatting.

- Assessment Plan
 - Assessment Tool: Final Project (a small Web site)
 - Assessment Date: Winter 2016
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% or higher.
 - Who will score and analyze the data: Departmental faculty and instructors
1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
75	30

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Assessment was only for sections 1, 2 and 3. Also only includes students who actually did the assignment.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students from sections 1, 2 and 3 were included that had completed the assignment.

Section 1 and 2 were morning classes.

Section 3 was an afternoon class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final project was a one page website that the students had to build based upon a screen shot. The build had to be exact down to the pixel. They demonstrated that they were able to code a webpage using CSS and HTML.

Project was scored based upon how accurate and how much of the page was done.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Only 30 students of the original 56 did the final assignment. The others either had withdrawn or did not do the final assignment. The final grades showed the following:

53% of the students scored 80% or better on this assignment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students who successfully completed this outcome with 80% or better actually did more like 95% or better. They demonstrated that they could code a webpage down to the pixel based upon a screenshot, that clearly shows that they understand html and css.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

More students need to participate in this assignment. This was the last assignment and many decided just not to do it. For those who did do it, the performance was bad. Corrections have already been made to the course material to better explain and give practice with the various html and css properites.

Outcome 3: Publish Web pages on a Web server using an SFTP (Secure File Transfer Protocol) program.

- Assessment Plan
 - Assessment Tool: Final Project (a small Web site)
 - Assessment Date: Winter 2016
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% or higher.
 - Who will score and analyze the data: Departmental faculty and instructors
1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
75	30

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Assessment was only for sections 1, 2 and 3. Also only includes students who actually did the assignment.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students from sections 1, 2 and 3 were included that had completed the assignment.
 Section 1 and 2 were morning classes.
 Section 3 was an afternoon class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final project was a one page website that the students had to build based upon a screen shot. The students had to upload the webpage to the server using SFTP in order to submit it.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

All students were able to successfully upload their project.

100% of the students scored 80% or better.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students demonstrated that they were able to upload web files using an SFTP program. All students who participated were able to do this.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

100% success was made in this area. This will be improved as course material is continuously improved.

Outcome 4: Validate online research using the principles of copyright, fair use, information integrity and ethics.

- Assessment Plan
 - Assessment Tool: Final Project (a small Web site)
 - Assessment Date: Winter 2016
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% or higher.

- Who will score and analyze the data: Departmental faculty and instructors

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
75	43

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Assessment was only for sections 1, 2 and 3. Also only includes students who actually did the assignment. However, this part of the project was completed during week 10 so more students participated. The other outcomes were assessed based on work done at the end of the semester when fewer students were still participating.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students from sections 1, 2 and 3 were included that had completed the assignment.
 Section 1 and 2 were morning classes.
 Section 3 was an afternoon class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Students were required to do a research project on a web technology of their choice. Evaluation was based upon:

1. Able to put into html code
2. Able to follow structure requirements
3. Able to site sources per instructions
4. Thoroughness of research

5. Able to meet minimum length requirement

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Only 43 students of the original 56 did the final assignment. The others either had withdrawn or did not do the final assignment. The final grades showed the following:

90% of the students scored 80% or better on this assignment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students demonstrated that they could do a web technology research paper and follow the guidelines for putting it online.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This was a successful outcome but will be improved as course material is continuously improved.

Outcome 5: Apply positioning and floats to reflect modern development standards.

- Assessment Plan
 - Assessment Tool: Final Project (a small Web site)
 - Assessment Date: Winter 2016
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 75% of the students will score 80% or higher.
 - Who will score and analyze the data: Departmental faculty and instructors
- 1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
75	30

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Assessment was only for sections 1, 2 and 3. Also only includes students who actually did the assignment.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students from sections 1, 2 and 3 were included that had completed the assignment.
Section 1 and 2 were morning classes.
Section 3 was an afternoon class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final project was a one page website that the students had to build based upon a screen shot. The build had to be exact down to the pixel. They demonstrated that they were able to code a webpage that required either floating or positioning. Project was scored based upon how accurate and how much of the page was done.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Only 30 students of the original 56 did the final assignment. The others either had withdrawn or did not do the final assignment. The final grades showed the following:

53% of the students scored 80% or better on this assignment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students who successfully completed this outcome with 80% or better actually did more like 95% or better. They demonstrated that they could code a webpage down to the pixel based upon a screenshot, that clearly shows that they understand html and css.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

More students need to participate in this assignment. This was the last assignment and many decided just not to do it. For those who did do it the performance was bad. Corrections have already been made to the course material to better explain and give practice with the various html and css properites.

II. Course Summary and Action Plans Based on Assessment Results

1. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

I believe the course is meeting the needs of the students who care about the material they are learning. Many students take this course thinking it will be an easy "A" and find out later they have to work at it.

This assessment shows me what I already know - that the course is good but the presentation could be modified to engage more of the student base. I have made some significant changes to the course already that will, hopefully, help with that goal.

2. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

I will meet with my other faculty during the summer and discuss my plans and updates.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Materials (e.g. textbooks,	Course materials have been re-	So students can better understand	2016

handouts, on-line ancillaries)	written and broken down into small chunks so students can better understand them. Also, code examples are no color coded so they are clearer. A new book is recommended. Also, supporting applications have been changed to make it easier for students to use and get information.	and use the course materials.	
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4. Is there anything that you would like to mention that was not already captured?

5.

III. Attached Files

Faculty/Preparer: Scott Shaper **Date:** 05/09/2016
Department Chair: Jason Withrow **Date:** 05/15/2016
Dean: Kimberly Hurns **Date:** 06/08/2016
Assessment Committee Chair: Michelle Garey **Date:** 08/03/2016