

**Course Assessment Report**  
**Washtenaw Community College**

Discipline	Course Number	Title
Web Design and Development	250	WEB 250 03/05/2018-Web Development IV
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: Develop modular web sites/applications.

- Assessment Plan
  - Assessment Tool: Homework assignments/projects
  - Assessment Date: Fall 2017
  - Course section(s)/other population: All
  - Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
  - Who will score and analyze the data: WEB full-time faculty

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)
2017		

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

# of students enrolled	# of students assessed
10	8

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.

8 of 10 students were assessed for this outcome. The others had withdrawn from the course.

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 Fall 2017 were included in this assessment. This course was face-to-face and this was the first time this course was offered.

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

A modular website is a template type of system where parts of the webpages are re-used instead of duplicated.

For this outcome a checkpoint (that reflected just building the webpages in a modular fashion) and the final project were used for the evaluation.

Checkpoints were due dates set between the start date and finish date of the project where students had to complete a part of the project or a part that would be related to the project with some modification.

The final project for this course is a pass/fail project for the students. It is opened up on the first day of class and is due on the last day of class. As the students go through the course, they learn what is needed to complete the final project and have to complete checkpoints along the way. It is stressed to the students on the first day that the final project must work 100%.

The evaluation consisted of students demonstrating that their checkpoint and final project worked as expected. Additionally, the code was reviewed for proper commenting, neatness, conciseness and organization.

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

7 of the 8 (87.5%) students scored 100%.

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

100% of the students evaluated showed strong skills in this outcome. Mastering this skill allows students to build websites in a modular fashion. Reusing modules instead of duplicating code is commonplace in the development workplace.

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.

Students did well on this outcome. In the future, I may introduce some popular frameworks that are based upon a modular design and currently used in the industry.

Outcome 2: Develop web application that require authentication and maintains state via sessions and/or cookies.

- Assessment Plan
  - Assessment Tool: Homework assignments/projects
  - Assessment Date: Fall 2017
  - Course section(s)/other population: All
  - Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
  - Who will score and analyze the data: WEB full-time faculty

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)
2017		

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

# of students enrolled	# of students assessed
10	8

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.

8 of 10 students were assessed for this outcome. The others had withdrawn from the course.

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 Fall 2017 were included in this assessment. This course was face-to-face and this is the first time this course was offered.

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

A session is used to authenticate and track a user as they navigate an application.

For this outcome, only the final project was used for the evaluation.

The final project for this course is a pass-fail project for the students. It is opened up on the first day of class and is due on the last day of class. As the students go through the course, they learn what is needed to complete the final project and have to complete checkpoints along the way. It is stressed to the students on the first day that the final project must work 100%.

The evaluation consisted of students demonstrating that their final project worked as expected. Additionally, the code was reviewed for proper commenting, neatness, conciseness and organization.

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

7 of the 8 students (87.5%) scored 100%.

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

100% of students evaluated showed strong skills in this outcome. Mastering this skill allows students to create applications that require users to login to a web application. Sessions are also used in e-commerce application that tracks the items a user has put into their shopping cart.

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.

Students did well on this outcome and seemed to grasp the skills well. I don't see any improvements that are needed for this outcome at this time.

Outcome 3: Develop web applications that will get data from a database.

- Assessment Plan
  - Assessment Tool: Homework assignments/projects
  - Assessment Date: Fall 2017
  - Course section(s)/other population: All
  - Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
  - Who will score and analyze the data: WEB full-time faculty

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)
2017		

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

# of students enrolled	# of students assessed
10	8

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.

8 of 10 students were assessed for this outcome. The others had withdrawn from the course.

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 Fall 2017 were included in this assessment. This course was face-to-face and this is the first time this course was offered.

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

Many web applications get their data from a database. A database is a collection of data (such as names, addresses, phone, etc.) that is used as content for web pages.

For this outcome, a checkpoint (that reflected creating the database tables) and the final project were used for the evaluation.

Checkpoints were due dates set between the start date and finish date of the project where students had to complete a part of the project or a part that would be related to the project with some modification.

The final project for this course is a pass/fail project for the students. It is opened up on the first day of class and is due on the last day of class. As the students go through the course, they learn what is needed to complete the final project and have to complete checkpoints along the way. It is stressed to the students on the first day that the final project must work 100%.

The evaluation consisted of students demonstrating that their checkpoint and final project worked as expected. Additionally, the code was reviewed for proper commenting, neatness, conciseness and organization.

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

7 of the 8 students (87.5) scored 100%.

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

100% of students evaluated showed strong skills in this outcome. Mastering this skill allows students to create applications that retrieve data from a database. This is a must-have skill for all modern web applications, as the data typically comes from a database.

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.

Students did well on this outcome. I don't see any improvements that are needed at this time.

Outcome 4: Recognize and apply database concepts.

- Assessment Plan
  - Assessment Tool: Homework assignments/projects
  - Assessment Date: Fall 2017
  - Course section(s)/other population: All
  - Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
  - Who will score and analyze the data: WEB full-time faculty

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)
2017		

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

# of students enrolled	# of students assessed
10	8

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.

8 of 10 students were assessed for this outcome. The others had withdrawn from the course.

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 Fall 2017 were included in this assessment. This course was face-to-face and this is the first time this course was offered.

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

Database concepts are used to building a database based upon best practices and good structure, so that the information within the databases are not duplicated or corrupted and can be quickly retrieved.

For this outcome, the final project was the evaluation.

The final project for this course is a pass/fail project for the students. It is opened up on the first day of class and is due on the last day of class. As the students go through the course, they learn what is needed to complete the final project and have to complete checkpoints along the way. It is stressed to the students on the first day that the final project must work 100%.

The evaluation consisted of students demonstrating that their checkpoint and final project worked as expected. Additionally, the code was reviewed for proper commenting, neatness, conciseness and organization.

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

7 of the 8 students (87.5%) scored 100%.

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

100% of students evaluated showed strong skills in this outcome. Mastering this skill allows students to understand database concepts and apply them to their application. Understanding how databases are constructed is critical to proper database application development.

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.



Students did well on this outcome and seemed to grasp the skills well. However, I feel more instruction could be included in this area.

Outcome 5: Build a database web application.

- Assessment Plan
  - Assessment Tool: Homework assignments/projects
  - Assessment Date: Fall 2017
  - Course section(s)/other population: All
  - Number students to be assessed: Random sample of 50% of the students with a minimum of one full section.
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 80% or more of the students will score an average of 70% or higher.
  - Who will score and analyze the data: WEB full-time faculty

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)
2017		

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

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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.

8 of 10 students were assessed for this outcome. The others had withdrawn from the course.

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 Fall 2017 were included in this assessment. This course was face-to-face and this is the first time this course was offered.

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

Building a database web application is what the final project was about. The students had to build a web application that would create, read, update and delete data from a database.

For this outcome, the final project was used as the evaluation

The final project for this course is a pass/fail project for the students. It is opened up on the first day of class and is due on the last day of class. As the students go through the course, they learn what is needed to complete the final project and have to complete checkpoints along the way. It is stressed to the students on the first day that the final project must work 100%.

The evaluation consisted of students demonstrating that their checkpoint and final project worked as expected. Additionally, the code was reviewed for proper commenting, neatness, conciseness and organization.

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: <u>Yes</u>
7 of the 8 students (87.5%) scored 100%.

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

100% of students evaluated showed strong skills in this outcome. Mastering this skill allows students to create applications that get data from a database. This is a must-have for all modern web applications as the data typically comes from a database.

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.

Students did well on this outcome. However, this is a duplicate to outcome number 3. I will be adding a new outcome to replace outcome five.

## 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?

The course does offer students a successful skillset that can be directly transferred to the workplace, and based upon this assessment I feel it was successful. However, this is the first time the course ran so the data is not as complete as it can be in the future. The assessment showed that the course overall was successful, but I feel it needs improvement. Over the summer, I will be making some changes to this course in order to make it more successful.

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

I will talk with Jason and Kelley about this outcome.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	I would like to change outcome #5 to another outcome where students will be evaluated on doing AJAX requests. Other than that, I think I will be adding more content and perhaps some smaller assignments needed to increase the students' skillsets.	Outcome #5 is essentially the same as outcome #3, so it needs to be changed. As far as the other, my rationale is just to make the class better overall.	2018

4. Is there anything that you would like to mention that was not already captured?

5.

### III. Attached Files

[Grades from Blackboard](#)

**Faculty/Preparer:** Scott Shaper      **Date:** 03/26/2018  
**Department Chair:** Ingrid Ankerson      **Date:** 03/27/2018

**Dean:** Eva Samulski **Date:** 03/27/2018  
**Assessment Committee Chair:** Shawn Deron **Date:** 06/25/2018