Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Computer Science	278	CPS 278 01/28/2021-Java Server Programming
Division	Department	Faculty Preparer
Business and Computer Technologies	Computer Science & Information Technology	Jai Bai
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?

   No

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

   3.

4. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

   5.

II. Assessment Results per Student Learning Outcome

Outcome 1: Identify Java Servlet programming techniques.

- Assessment Plan
  - Assessment Tool: Multiple choice and short answer questions on a departmental exam
  - Assessment Date: Fall 2016
  - Course section(s)/other population: All sections
  - Number students to be assessed: All students
  - How the assessment will be scored: answer key
  - Standard of success to be used for this assessment: 70% of the students who take the exam will score better than 70%.

- Who will score and analyze the data: Departmental 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)
2020	2020	

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

# of students enrolled	# of students assessed
55	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.

Only 43 students took the test.

16 from 202001

27 from 202009

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.

In 202001: 11 students were in the online session. 5 students were in the f2f session.

In 202009: 21 students were in the online session. 6 students were in the f2f session.

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

This assessment is based on selected questions in the midterm exam which contains multiple choices questions. Each question is 3 points.

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

As shown in the attachment:

In 202001 81% (13 out of the 16) students scored above 70% on those questions.

In 202009 78% (21 out of the 27) students scored above 70% on those questions.

The result indicates that the students who completed this assessment achieved this learning outcome.

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

The success rate for this outcome indicates that the majority of students who completed the test are able to identify Java Servlet programming techniques.

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 course material is considered outdated technology and no longer used directly for many new projects. It should be updated using newer and more popular framework such as Spring.

Outcome 2: Identify Java Server Page (JSP) programming techniques.

- Assessment Plan
    - Assessment Tool: Multiple choice and short answer questions on a departmental exam
    - Assessment Date: Fall 2016
    - Course section(s)/other population: All sections
    - Number students to be assessed: All students
    - How the assessment will be scored: answer key
    - Standard of success to be used for this assessment: 70% of the students who take the exam will score better than 70%.
    - Who will score and analyze the data: Departmental 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)
2020	2020	

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

# of students enrolled	# of students assessed
55	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.

Only 43 students took the test.

16 from 202001

27 from 202009

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.

In 202001: 11 students were in the online session. 5 students were in the f2f session.

In 202009: 21 students were in the online session. 6 students were in the f2f session.

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

This assessment is based on selected questions in the midterm exam which contains multiple choices questions. Each question is 4 points.

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

As shown in the attachment:

In 202001 75% (12 out of the 16) students scored above 70% on these questions.

In 202009 78% (21 out of the 27) students scored above 70% on these questions.

The result indicates that the standard of success was met.

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

The success rate for this outcome indicates that the majority of students who completed the test are able to identify jsp programming techniques.

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 course material is considered outdated technology and no longer used directly for many new projects. It should be updated using newer and more popular framework such as Spring.

Outcome 3: Identify JDBC programming techniques to access online databases.

- Assessment Plan
    - Assessment Tool: Multiple choice and short answer questions on a departmental exam
    - Assessment Date: Fall 2016
    - Course section(s)/other population: All sections
    - Number students to be assessed: All students
    - How the assessment will be scored: answer key
    - Standard of success to be used for this assessment: 70% of the students who take the exam will score better than 70%.
    - Who will score and analyze the data: Department 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)
2020	2020	

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

# of students enrolled	# of students assessed
55	36

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.

Only 36 students took the test. 15 from 202001 21 from 202009

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.

In 202001: 10 students were in the online session. 5 students were in the f2f session. In 202009: 16 students were in the online session. 5 students were in the f2f session.

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

This assessment is based on selected questions in the midterm exam which contains multiple choices questions. Each question is 4 points.

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
As shown in the attachment: In 202001: 93% (14 out of 15) students scored above 70% on these questions. In 202009: 81% (17 out of 21) students scored above 70% on these questions. The result indicates that the standard of success was met.

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

The success rate for this outcome indicates that the majority of students who completed the test are able to identify JDBC programming techniques to access online 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.

The course material is considered outdated technology and no longer used directly for many new projects. It should be updated using newer and popular framework such as Spring.

Outcome 4: Create dynamic HTML and web pages using Java Servlet, JSP and the basic capabilities of JDBC.

- Assessment Plan
    - Assessment Tool: Programming Exercise
    - Assessment Date: Fall 2016
    - Course section(s)/other population: All sections
    - Number students to be assessed: Random sample of 25% of all 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: 70% of the students will successfully complete the exercise
    - Who will score and analyze the data: Department 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)
2020	2020	

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

# of students enrolled	# of students assessed
55	35

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.

Only 35 students completed the activity.

14 from 202001

21 from 202009

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.

In 202001: 9 students were in the online session. 5 students were in the f2f session.

In 202009: 16 students were in the online session. 5 students were in the f2f session.

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

This assessment is based on machine problem 7. Machine problem 7 contains one programming problem. Students are required to use the concepts taught in the class, such as jsp, Java Servlet, JDBC to create a project.

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

As shown in the attachment:

In 202001: 100% (14 out of 14) students scored above 70% on this assignment.

In 202009: 81% (17 out of 21) students scored above 70% on this assignment.

The result indicates that the standard of success was met.

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

The success rate for this outcome indicates that the majority of students who completed the assignment are able to utilize concepts learned from the course to create dynamic HTML and web pages.

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 course material is considered outdated technology and no longer used directly for many new projects. It should be updated using newer and more popular framework such as Spring.

III. Course Summary and Intended Changes Based on Assessment Results

1. 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.

There is no previous assessment report.

2. 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 enrollment is lower than I expected. Maybe due to the outdated material? Like a lot of other programming courses, this course is very effective for serious students. Students who complete the assessments scored well. However many dropped out/withdrew from the course. It could be due to the pandemic or in general programming courses are very time intensive and demanding. Many students sign up but cannot commit to the time and effort required to be successful in the course.

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

The information will be shared at department meetings.

4. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	This course will be updated using Spring framework. The outcomes will be updated	The technologies and tools used in this course are considered outdated and should be	2021

	involving identifying and utilizing Spring framework technologies.	updated to the newer and more popular ones.	
Course Assignments	Assignments and project will be updated using the newer technologies.	Course outcomes will be updated and the assignments will need to align with the outcomes.	2021

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

6.

III. Attached Files

outcome 1 2 3
outcome4_online_202009
outcome4_f2f_202009
outcome4_f2f_202001
outcome4_online_202001

Faculty/Preparer:	Jai Bai	**Date:**	03/25/2021
Department Chair:	Cyndi Millns	**Date:**	03/25/2021
Dean:	Eva Samulski	**Date:**	03/25/2021
Assessment Committee Chair:	Shawn Deron	**Date:**	04/12/2021