

PROGRAM ASSESSMENT REPORT

**I. Background Information**

1. Program Assessed

Program name: Web Development

Program code: CVWDEV

Division: WEB

Department: Digital Media Arts

Type of Award: ☐ A.A. ☐ A.S. ☐ A.A.S.  
☐ Cert. ☒ Adv. Cert. ☐ Post-Assoc. Cert. ☐ Cert. of Completion

2. Semester assessment was administered (check one):

☐ Fall 20\_\_\_\_  
☒ Winter 2018  
☐ Spring/Summer 20\_\_\_\_

3. Assessment tool(s) used (check all that apply):

☐ Portfolio  
☐ Standardized test  
☐ Other external certification/licensure exam (please describe): \_\_\_\_\_  
☐ Graduate Survey  
☐ Employer Survey  
☐ Advisory Committee Survey  
☐ Transfer follow-up  
☐ Externally evaluated performance or exhibit  
☐ Externally evaluation of job performance (internship, co-op, placement, other)  
☐ Capstone experience (please describe):  
☒ Other (please describe): It was based on the course projects completed in WEB230 and WEB250.

4. Have any of these tools been used before?

☐ Yes (if yes, identify which tool)  
☒ No

If yes, has this tool been altered since its last administration? If so, briefly describe changes made.

5. Indicate the number of student's assessed/total number of students enrolled in the course.

Only 2 were enrolled in the program, but many more took one or both of the courses.

6. Describe how students were selected for the assessment.

a. Describe your sampling method. All students in the program who graduated

b. Describe the population assessed (e.g. graduating students, alumni, entering students, continuing students)? The students assessed were the ones who enrolled in the program

and graduated from the program.

**II. Results**

1. If applicable, briefly describe the changes that were implemented in the program as a result of the previous assessment.

NA

2. State each outcome (verbatim) from the Program Assessment Planning or Program Proposal form for the program that was assessed.

Web 230 outcome: "Create a client side web application."

Web 250 outcome: "Create a server side application."

## PROGRAM ASSESSMENT REPORT

3. Briefly describe assessment results based on data collected during the program assessment, demonstrating the extent to which students are achieving each of the learning outcomes listed above. ***Please attach a summary of the data collected (as a separate document).***

WEB230 was changed and does not match the outcome described in the program assessment planning form. In the document the outcome was for students to build a client side application. The students actually create both a client side and server side application. The client side was the part of the application the end user would work with. The languages the students had to use were HTML, CSS, and JavaScript. The server side was the part of the application that was done on a server (cloud computer). The server code did the requests that were sent from the client (retrieve a web page, get some data, etc.). The server side languages for WEB230 were Node.js and MySQL.

Of the students evaluated in WEB230 all completed the outcome by creating a functioning web application utilizing both the server and client side.

WEB250 was changed and does not match the outcome described in the program assessment planning form. In the document the outcome was for students to build a server side application. The students actually create both a client side and server side application. The client side was the part of the application the end user would work with. The languages the students had to use were HTML, CSS, and JavaScript. The server side was the part of the application that was done on a server (cloud computer). The server code did the requests that were sent from the client (retrieve a web page, get some data, etc.). The server side languages for WEB250 were PHP and MySQL.

Of the students evaluated in WEB250 all completed the outcome by creating a functioning web application utilizing both the server and client side.

The basic difference between WEB230 and WEB250 is the students are using two different languages on the server side. In the industry there are multiple languages used on the server, thus these two courses expose students to two of the more popular ones.

In both WEB230 and WEB250 students had to complete checkpoints along the way that were completed parts of the project. These checkpoints were used to evaluate proficiency in specific outcomes for each course. Those outcomes were:

WEB230 and WEB250

- Assigning events listeners to elements
- Working with the DOM (Document Object Model)
- Adding/Updating/Deleting and Viewing items in a Database
- Using AJAX (asynchronous JavaScript and xml) to send things from client to server and server to client
- Using Sessions
- Database Concepts

WEB250 (only)

- Creating a modular website

WEB230 (only)

- Creating Web Templates
- Setting up Web servers

As stated before WEB230 and WEB250 basically do the same thing except use two different languages for the server side. In addition, the structure is slightly different because of the languages being used. That is why most of the outcomes are the same for each class.

Not only were the students evaluated for the checkpoints but in each evaluation the code was reviewed for proper commenting, neatness, conciseness and organization.

PROGRAM ASSESSMENT REPORT

4. For each outcome assessed, indicate the standard of success used, and the percentage of students who achieved that level of success. ***Please attach the rubric/scoring guide used for the assessment (as a separate document).***

100% of the students scored 75% or higher

5. Describe the areas of strength and weakness in students' achievement of the learning outcomes shown in assessment results.

**Strengths:** Students successfully completing this program had the ability to create complex web applications and more importantly solve the issues associated with creating web applications. This is an important strength because having to solve problems is what the industry requires of all occupants.

**Weaknesses:** From a program perspective a weakness seems to be a lack of interest, with only two enrollments. However, when looking at the two courses individually, a different picture is painted. Students take one or both classes as requirements for other programs or for career advancement. Students who were successful in taking either or both courses ended up having success in their career goals as well. So success is being seen from each of these courses that is greater than the current enrollment number of the program.

Another weakness found from the data is that students who drop out are dropping out about halfway through. This is when the material gets harder and requires more time and commitment from the student to be successful. In the course evaluations certain problems were identified and changes have been made to help. However, the heart of each course is to have the student experience much of what it is actually like to put web applications together, especially using multiple languages. Many times web developers are faced with learning new languages on their own, solving difficult problems, and thinking outside of the box. These types of skills are developed through a person's desire to succeed. Many of the students who struggle in this class appear to not have that desire. They feel that showing up to class and doing a couple of hours of homework a week will be enough, when it clearly is not. Another problem is that some of the students taking either class really don't have the programming background they should. This is being addressed in some better pre-requirements.

### III. Changes influenced by assessment results

1. If weaknesses were found (see above) or students did not meet expectations, describe the action that will be taken to address these weaknesses.

The assessment shows a great success, however some changes will be made to the individual courses, which has been reflected on the course assessments.

2. Identify any other intended changes that will be instituted based on results of this assessment activity (check all that apply). Describe changes and give rationale for change.

a. ☐ Outcomes/assessments from Program Assessment Planning or Program Proposal form:

b. ☐ Program Curriculum:

☐ course sequencing

☐ course deletion

☐ course addition

☒ changes to existing program courses (specify): Some modifications will be made to the individual courses, those changes have been explained in the course assessments.

☐ other (specify):

## PROGRAM ASSESSMENT REPORT

c. ☐ Other (specify):

3. What is the timeline for implementing these actions?

**IV. Future plans**

1. Describe the extent to which the assessment tools used were effective in measuring student achievement of learning outcomes for this program.

This program is designed to get students ready for the real world workforce as a web developer. Each course requires the students to create a fairly complex web application. The assessment is based on the student achieving that goal. The assessment was effective in showing that those students evaluated did successfully accomplish the intended outcomes. However, there will be changes made to the courses themselves. Those changes have been listed in the course assessments.

2. If the assessment tools were not effective, describe the changes that will be made for future assessments.
3. Which outcomes from Program Assessment Planning or Program Proposal form have been addressed in this report?

All ☒ Selected ☐

If "All", provide the report date for the next full review: \_\_\_\_\_.

If "Selected", provide the report date for remaining outcomes: \_\_\_\_\_.

PROGRAM ASSESSMENT REPORT

Submitted by:

Name: [Signature] Date: 4-30-18  
Department Chair: [Signature] Date: 5/3/18  
Dean: [Signature] Date: 5-3-18

*Please return completed form to the Office of Curriculum & Assessment, SC 257.*