Midterm Examination

CS 319 | Fall 2016

# Instructions & Academic Conduct

This midterm examination covers topics from Units 1 through 6. (Exception: HTML and CSS will not be directly addressed due to the ambiguity in the course prerequisites. Only HTML and CSS related to JavaScript web programming will be addressed.) This is a “take-home” examination to be completed on students’ own time. Students may use as much time as desired to complete this exam. However, it is designed to be completed in 1 hour 50 minutes, and as compensatory time the lab session on Friday, October 21 will not meet. This exam has two sections: a short answer section and a programming section. Short answers should be saved in this Word document, and the Word document should be submitted to the D2L Dropbox before the due date. Programming answers should be saved in separate HTML files, which will be zipped and uploaded to the D2L Dropbox before the due date.

Students are to complete this exam on their own. Students may consult their notes, class materials provided by the instructor, and web resources in general while completing this exam. If a resource other than a student’s own knowledge is consulted, that resource must be cited in an APA, MLA, or Chicago style citation as part of the answer. Students may not discuss this exam or share information about the exam in any way until after all exams have been graded. Any violation(s) of these academic conduct requirements will result in a grade of zero points on the midterm exam, as well as other penalties outlined in The Blugold Code and Chapter 14 of the UWS Code.

By filling in your name below, you signify that you have read, understand, and agree to the instructions and requirements outline above.

**Student Name: Matthew J Ehlers**

# Section 1: Short Answer

1. What do the plus signs (+) in the following JavaScript mean? Be specific. (2 points)  
 <script>

var username;

username = "Marvin";

document.write("Hello, " + username + "!");

</script>

**Answer:**

**The plus signs concatenate the username variable and the two strings together, therefore, it will print: Hello, Marvin!**

2. What will be displayed in each of the following alerts? Explain why each is displayed the way it is. Be specific. (6 points)

<script>

var a = 10;

var b = 40;

var c = "5";

var d = "30";

// Alert #1

alert(a + b);

// Alert #2

alert(c + d);

// Alert #3

alert(a + d);

</script>

**Answer:**

**Alert #1: 50 Alert #2: 530 Alert #3: 1030**

3. Given an example of when you would use each of the following four display outputs. Explain why you would choose to use that option. Be specific. (8 points)

<script>

alert();

console.log();

document.write();

document.getElementById().innerHTML;

</script>

**Answer:**

**Alerts should be used when important information needs to be presented to the user: A field is missing a value**

**Console logs are useful for debugging, unless the user has the console up in a web browser, they will not see it: Trying to troubleshoot where the issue is, if a function is being called or not**

**Document write would be useful for displaying information or answers: displaying an answer in a calculator program**

**Sending something to innerHTML is useful when you want something to show up on a specific spot on the page: Wanting an answer to show up in a paragraph tag in HTML code**

4. When would you use “return false;” in your JavaScript? Why? Be specific. (2 points)

**Answer:**

**Return false can be used when a form has not been fully filled out and you want the user to complete the form before continuing.**

5. What will be displayed in a browser when the following JavaScript is executed? Be specific. (2 points)

<script>

var age = 15;

if (age < 18) {

alert("Sorry, you must be 18 or older.");

} else {

alert("Thank you.");

}

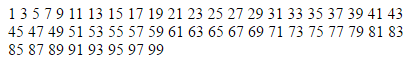
<script>

**Answer:**

**An alert saying: Sorry, you must be 18 or older.**

# Section 2: Programming

5. Open odds1to99.html. In this file, write a JavaScript loop that displays the odd numbers from 1 to 99 when the page loads as shown below. I am interested in the numbers showing up, not in the exact format of how they are displayed (i.e., vertical or horizontal are both fine, just make sure they don’t all run together as one long number). Save the file. (15 points)



6. Open name.html. In this file, write a JavaScript function named displayName() that will display an alert that says, “Hello, FirstName LastName!” FirstName and LastName should be replaced with the fname and lname text input values, respectively. For example:



Be mindful that your punctuation and spacing is accurate. Save the file. (15 points)

7. Open age.html. Write a JavaScript function named validateAge() to determine if the user entered anything for the age input. If not, display an appropriate alert, set the focus to the age input, and don't allow the form to be submitted. If anything was entered in the age input, allow the form to be submitted. Note: I am not asking you determine if what was entered was a number, just that something/anything was entered. Save the file. (15 points)

8. Open radio.html. Write a JavaScript function named whichRadio() to determine which of the three radio buttons is checked at the time of the button press. Display an alert saying either Daisy, Orchid, or Peony has been checked. Save the file. (15 points)

9. Open broken.html. This file displays two text inputs, one for Fahrenheit and one for Celsius values, along with a converter button. When the button is pressed, the function is to read in the Fahrenheit value, convert it to Celsius, display the results in the Celsius field, then change the Celsius field’s background color. However, there are several things wrong with this code. Identify each problem and fix it so the page works as described. Save the file. (20 points)