Montgomery College
Information Technology Institute (ITI)
Front-End Web Certification Program

Front-End Web Certification Rubric

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Course: JavaScript & jQuery	Course No. ITI 413	CRN: 34426

Evaluation Metric	Completed	Not Completed	Recommended Remediation
Session I Exercise Projects			
Complete exercise 2.1 – Modification of the Miles Per Gallon application.			
1. Understand the modification of this application so the result is displayed in the browser instead of an alert statement.	✓		
2. Link to your solution file.	✓		
Complete exercise 2.2 – Modification of the Test Score application.			
1. Understand how the same code can be replaced with less code.	✓		
2. Understand the modification of this application so the variable declarations for the three scores parse the entries before storing their values.	✓		
3. Understand the modification to change the statements that accumulate the score in the total, so they use the += assignment operator.	✓		
4. Link to your solution file.	✓		

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Complete exercise 2.3 – Modification of the Simple application.			
1. Understand the modification of the Miles Per Gallon application so it gets the length and width of a rectangle from the user, calculates the area and the perimeter of the rectangle, and displays the results in the browser.	✓		
2. Link to your solution file.	✓		
Session II Exercise Projects			
Complete Exercise 4-1 – Enhance the Miles Per Gallon application.			
1. Understand the modification of the if-else statement that provides the data validation, so it checks each text box separately.	✓		
2. Understand the addition of a Clear Entries button below the Calculate MPG button.	✓		
3. Understand the modification of the HTML for the Clear Entries button so it has a unique id and an appropriate value attribute.	✓		
4. Understand the addition of a function expression named clearEntries() that clears the entries in the four text boxes.	✓		
5. Understand the addition of a statement in the onload event handler that attaches the clearEntries() function to the click event of the Clear Entries button.	✓		
6. Understand the addition of a statement to the onload event handler that attaches the clearEntries() function to the double-click event of the miles text box.	✓		
7. Link to your solution file.	✓		

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Complete Exercise 4-2 – Build a new Future Value application.			
1. Understand the creation of a function expression named calculateFV(). It should have three parameters that receive the user's entries: investment amount, interest rate, and number of years. It should calculate the future value based on these parameter values, round the result to two decimal places, and return the rounded result.	✔		
2. Understand the creation of a function expression named processEntries() that gets the user entries with no data validation.	✔		
3. Understand the code statement that calls the calculateFV() function and stores the result that's returned in the fourth text box.	✔		
4. Understand the creation event handler for the onload event that attaches the processEntries() function to the click event of the Calculate button. This handler should also move the focus to the first text box.	✔		
5. Understand the declaration of a variable that will be used to store an error message right after the other variable declarations.	✔		
6. Understand the if-else statement that tests whether each entry is valid.	✔		
7. Understand if an entry is invalid, assign an error message to the variable you declared in step 9 and move the focus to the text box that contains the error. The values for the three entries should be as follows: a. Investment is a number that's greater than zero and less than or equal to 100,000; b. Interest rate is a number that's greater than zero and less than or equal to 15; c. Years is a number that's greater than zero and less than or equal to 50.	✔		

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8. Understand the addition of the another if-else statement that tests whether any errors were detected.			
9. Link to your solution file.	✔		
Complete Exercise 6-1 – Experiment with the FAQs application.			
1. Understand the toggle event handlers	✔		
2. Understand the className property instead of the hasAttribute(), removeAttribute(), and setAttribute() methods.	✔		
3. Link to your solution file.	✔		
Complete Exercise 6-2 – Add controls to the Register application.			
1. Add a radio button for Mobile phone and a text area for Comments	✔		
2. Understand how to add the JavaScript code that gets the data entered in the two new controls.	✔		
3. Understand how to change the code in the JavaScript file so instead of displaying the comments in the table, the length of the comments entry is displayed.	✔		
4. Link to your solution file.	✔		
Complete Exercise 6-2 – Enhance the Email List application			
1. Enhance the data validation so it displays the error messages in the span elements.	✔		
2. Understand how to test application with valid data works.	✔		

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3. Link to your solution file.	✔		
Session III Exercise Projects			
Complete Exercise 3-1 - Enhance the Future Value application.			
1. Understand a do-while statement for continuing entries.	✔		
2. Understand validation for the investment and rate entries.	✔		
3. Link to your solution file.	✔		
Complete Exercise 3-2 - Enhance the Test Scores application.			
1. Understand the enhance the test cores application with valid entries.	✔		
2. Link to your solution file.	✔		
Complete Exercise 13-1 - Enhance the Future Value application.			
1. Understand how to use a random number generator.	✔		
2. Understand how to format the future value with a dollar sign and commas.	✔		
3. Understand how to add the current date to the <p> element below the button.	✔		
4. Link to your solution file.	✔		
Complete Exercise 14-2 – Add Exception Handling to the Future Value application.			

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1. Understand how to add exception handling to the click event handler for the Calculate button.	✔		
2. Understand how to add a throw statement after the if statement in the calculateFutureValue() function.	✔		
3. Link to your solution file.	✔		
Complete Exercise 14-3 – Enhance the Account Profile application.			
1. Understand how to validate the credit card field.	✔		
2. Understand how to validate the expiration date field.	✔		
3. Link to your solution file.	✔		
Session IV Exercise Projects			
Complete Exercise 16-1 – Enhance the Task List application.			
1. Understand how to code the event handler for the Delete button so it uses the prompt() method to ask the user for the index number of the task to delete, starting with zero for the first task.	✔		
2. Understand how to sort the tasks to make sure their order matches the order of the displayed tasks.	✔		
3. Understand how to add data validation to the Delete Task event handler so the user's entry has to be a number and has to be an index value that's in the array.	✔		
4. Link to your solution file.	✔		
Complete Exercise 16-2 – Enhance the Task List 2.0 application.			

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1. Understand how to code the Filter event handler.	✔		
2. Link to your solution file.	✔		
Session V Exercise Projects			
Complete Exercise 7-1 - Develop a rollover application.			
1. Add code to preload the images and implement the rollovers.	✔		
2. Add code to the mouseover and mouseout event handlers for the two image elements.	✔		
3. Link to your solution file.	✔		
Complete Exercise 7-2 - Enhance the Slide Show application.			
1. Add code to start the slide show when the Start button is clicked.	✔		
2. Add code to pause the slide show when the Pause button is clicked.	✔		
3. Link to your solution file.	✔		
Complete exercise 8.1 – Add a Clear button to the Email List application.			
3. Add an event handler for the click event of the Clear button that clears all the text boxes by setting them to an empty string ("").	✔		
4. Add another statement to this event handler that moves the focus to the first text box.	✔		
5. Add another event handler to this application for the double-click event of any text box.	✔		

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6. Add a statement to the double-click event handler that only clears the text from the text box that the user double-clicks in.	✓		
7. Link to your operational solution file.	✓		
Complete exercise 8.2 – Use different event methods for the Image Rollover application.			
5. Comment out the hover() method in the JavaScript, and rewrite the code so it uses the mouseover() and mouseout() event methods to implement this application.	✓		
6. Add the two images that are displayed when the two existing images are rolled over to the ul element whose id is image_rollovers.	✓		
7. Link to your operational solution file.	✓		
Complete exercise 8.3 – Develop a Book List application.			
3. Write the code to loop through all the links in the main element.	✓		
4. Cancel the default actions of the links	✓		
5. Link to your operational solution file.	✓		
Session VI Exercise Projects			
Complete Exercise 9-1 – Experiment with animation.			
8. Change the effects for the FAQ headings so the answers fade in and fade out of view when the headings are clicked.	✓		

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9. Change the effects for the FAQ headings so the answers slide down and slide up when the headings are clicked.	✔		
10. Fix the animation for the top-level heading so it always returns to its proper location above the FAQs at the end of the animation.	✔		
11. Add the easings code so that the effects and animations code.	✔		
12. Link to your operational solution file.	✔		
Complete Exercise 9-2 – Modify the Slide Show application.			
10. Modify the jQuery so the caption and the image slide up and then back down as the show moves from one slide to the next.	✔		
11. Modify the jQuery so the caption is hidden by the hide() method and displayed by the show() method, both over an interval of one second.	✔		
12. Increase the time for displaying and hiding the slide to two seconds and increase the interval for the timer to five seconds.	✔		
13. Link to your operational solution file.	✔		
Complete Exercise 9-3 – Modify the Carousel application.			
4. Modify the jQuery code so the carousel moves one book at a time when you click on one of the buttons instead of three books at a time.	✔		
5. Modify the CSS and jQuery code so only one book is displayed.	✔		
6. Link to your operational solution file.	✔		

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Session VII Exercise Projects			
Complete Exercise 10-1 - Validate with JavaScript.			
4. Code the preventDefault() method of the event object in the if statement at the end of the file.		✔	
5. Fix this problem of entering more spaces by trimming the first-name entry before it is validated, as in the code for the last-name entry.		✔	
6. Add the code for validating the zip-code field		✔	
7. Add the code for validating the check boxes.		✔	
8. Link to your operational solution file.		✔	
Complete jQuery UI Form Widget.			
4. Ensure the file are reference correctly in the application.		✔	
5. Add in the code for the Datepicker widget.		✔	
6. Add in the code for the airport.js json file.		✔	
7. Add in the code for the elect menu function.		✔	
8. Add in the code for the buttonset function.		✔	
9. Link to your operational solution file.		✔	

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Session VIII Exercise Projects			
Complete Exercise 11-1 – Experiment with the Cycle 2 plugin.			
5. Change the value of the data-cycle-fx option to "fadeout". Then, add a data-cycle-speed option with a value of "1000".		✔	
6. Change the script element for the Cycle 2 plugin so it refers to the file you just downloaded.		✔	
7. Link to your operational solution file.		✔	
Complete Exercise 11-2 – Experiment with the Accordion widget.			
3. Modify the jQuery code for the accordion so the panels are displayed when the user double-clicks on them rather than when the mouse moves over them.		✔	
4. Modify the jQuery code so all the panels are closed when the application starts. To do that, use the active option.		✔	
5. Link to your operational solution file.		✔	
jQuery Displaying Images Plugin			
1. Select a jQuery Displaying Images Plugin.		✔	
2. Include selected jQuery Displaying Images Plugin on a separate webpage of your site.		✔	
3. Link to your operational solution file.		✔	

Notes: